

**Old Harbor,
City of the Three Saints**

**Comprehensive Plan
and
Capital Improvements Program**

**Public Hearing Draft
June, 1989**

ERRATA

Comprehensive Plan and Capital Improvements Program

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PAGE 15: "The climate of the Kodiak Region is dominated by a strong marine influence. It is characterized by cloudy skies, moderately heavy precipitation, and cool temperatures. In winter, the waters of the North Pacific Ocean provide moisture for cloudiness and precipitation. The marine waters also provide heat that maintains a mild climate year round.

Temperature patterns are characterized by cool summers and, compared to the rest of Alaska, warm winters." From Kadyak, A Background for Living. AEDC, 1975. (Replace first paragraph and first sentence of the second paragraph.)

PAGES 35, 36, 38 THROUGH 41 - Figures 17, 18, 20 through 23: These maps are taken from the "Alaska Habitat Management Guide - Reference Maps, Southwest Region, Distribution of Fish," produced by the State of Alaska Department of Fish and Game, Division of Habitat, Juneau, Alaska 1985. **A recognized alternate spelling for Fraser Lake is Frazer Lake.**

PAGE 35 - Figure 17: This figure is located out of sequence after page 47, figure 29.

PAGE 48: Delete "and coastal western hemlock" from the end of the second sentence.

**OLD HARBOR
COMPREHENSIVE PLAN
AND
CAPITAL IMPROVEMENTS PROGRAM**

Public Hearing Draft

June 1989

Prepared by:

**KODIAK ISLAND BOROUGH
Community Development Department**

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The Residents of Old Harbor

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EXECUTIVE SUMMARY

The Old Harbor Comprehensive Plan has been developed by the Kodiak Island Borough as part of an ongoing effort to develop comprehensive plans for all Kodiak Island Borough villages and population concentrations. Second Class Boroughs are required to provide for planning, platting, and land use regulations pursuant to Title 29 of the Alaska State Statutes. This plan is intended to serve as a guide for decision making in the location of future land uses and capital improvement projects. The plan will constitute a portion of the Kodiak Island Borough's overall comprehensive plan and comprehensive planning process, and is intended to assist in the implementation of the Kodiak Island Borough Coastal Management Program and the Alaska Coastal Management Program.

The plan contains several components based on the format used for previous comprehensive plans developed for other Kodiak Island Borough villages (Akhiok, Karluk, Larsen Bay, and Ouzinkie). The setting, environment, and cultural environment sections describe the characteristics of the community at the present time. The goals and objectives represent the desired future state of the community as determined by local residents. The comprehensive plan section outlines the future land use needs of the community, based on the existing situation and the goals and objectives for the future. This section also presents land use categories to guide the location of future developments. Last, but not least, is an updated priority list and brief discussion of capital improvement projects for Old Harbor. This list was developed by community residents and represents one way in which the goals and objectives for future development of the community will be achieved.

SETTING AND ENVIRONMENT

Introduction

The setting, environment, and cultural environment sections present a description of the community, its facilities and resources at the present time. They provide a focus for understanding Old Harbor, its people, and their goals for the future.

History

According to author Yule Chaffin, the first inhabitants of the Kodiak Archipelago were known as Koniags. Early Russian settlers did not distinguish between Aleuts and Koniags. Koniags at that time were referred to as "Aleuts" or, sometimes as Kadiak Aleuts. When the Russians first arrived, the Aleut and Koniag cultures differed in some areas but in others were very similar. Later, as a result of Russian settlement, many Koniags and Aleuts were moved around and their culture intermixed. The culture of the Koniags was also intermixed with that of the Russians and, later, with Scandinavians and other nationalities. Today, according to Ms. Chaffin, it is doubtful if there still exists a pure Aleut or Koniag in the Kodiak Archipelago or the Aleutian Chain.

It is believed that there were at least two different periods of culture in Koniag history, and perhaps more. The two most distinctive periods have been referred to as Paleo-Koniags (pre-historic times), and the Koniags (those living after the coming of the Russians).

Due to the rough terrain and limited resources of the interior of Kodiak Island, most human habitation, both of pre-historic and recent times, has been located along the

shore, usually near a source of fresh water. The people inhabiting Kodiak Island have historically depended upon the sea to provide both subsistence needs and an economic livelihood. This dependence upon the sea has been the primary influence upon the development of the culture of all indigenous communities on the island.

The Koniags usually settled in those areas which provided the most abundance of fish and other staples. Fish were routinely eaten in season as well as being dried for use during the winter months. The species used most frequently included salmon, halibut, cod, flounder, herring, smelt, sea urchins, mussels and sometimes octopus. Waterfowl also made up a significant aspect of the Koniag diet, including migratory and resident teal, geese, harlequin, golden eye, and mallard among others. Eggs of seagulls and other shorebirds were also harvested as a source of food.

Marine mammals provided another food source for early inhabitants of Kodiak Island. These included sea otters, sea lions, seals, porpoises, and whales. The oil obtained from these sources was often used in lamps. Other products obtained from the harvest of marine mammals such as sinew, gut, and skin were necessary for the manufacture and maintenance of early boats and clothing. Other sources of food for the Koniags included blueberries, salmonberries and cranberries.

The present village of Old Harbor was established in 1884. It was relocated from its previous location at the head of nearby Three Saints Bay where it had been established 100 years earlier by merchant and fur trader Gregor Shelikof. The original Three Saints Bay location was at one time the main fur trading center of the Russian-American Company. In 1792, the main Russian colony was moved to the present site of the City of Kodiak. By the end of the Russian era in 1867, only a few badly deteriorated buildings marked the original site at Three Saints Bay.

A destructive tidal wave (tsunami) was one of the factors influencing the Russian Colony to move to St. Paul Harbor, now the City of Kodiak. This also influenced the remaining colonists to relocate to the present location of Old Harbor. Another tsunami destroyed the village of Old Harbor at its present location in March 1964. The village has since been completely rebuilt at the same location.

Local Municipal Government

Old Harbor is a second class city located within the Kodiak Island Borough. The city was incorporated in 1966 as a fourth class city. In 1971, when Title 29 of the Alaska Statutes was amended, Old Harbor was reclassified as a second class city. The city has a seven member city council. The mayor is elected from the city council by the other council members on an annual basis. The mayor, in addition to mayoral duties as specified by State Statutes, also serves as the City Administrator, managing the city's day to day affairs. Elections are conducted every year on the first Tuesday in October and council terms are staggered on a three year cycle. The city employs one full time city clerk, one part time deputy clerk, and one part time public works supervisor. A Village Public Safety Officer (VPSO) acts in the capacity of fire chief, along with supervising any search and rescue activities in and for the city. When necessary and when funds are available, the city employs laborers and equipment operators.

REGIONAL LOCATION MAP

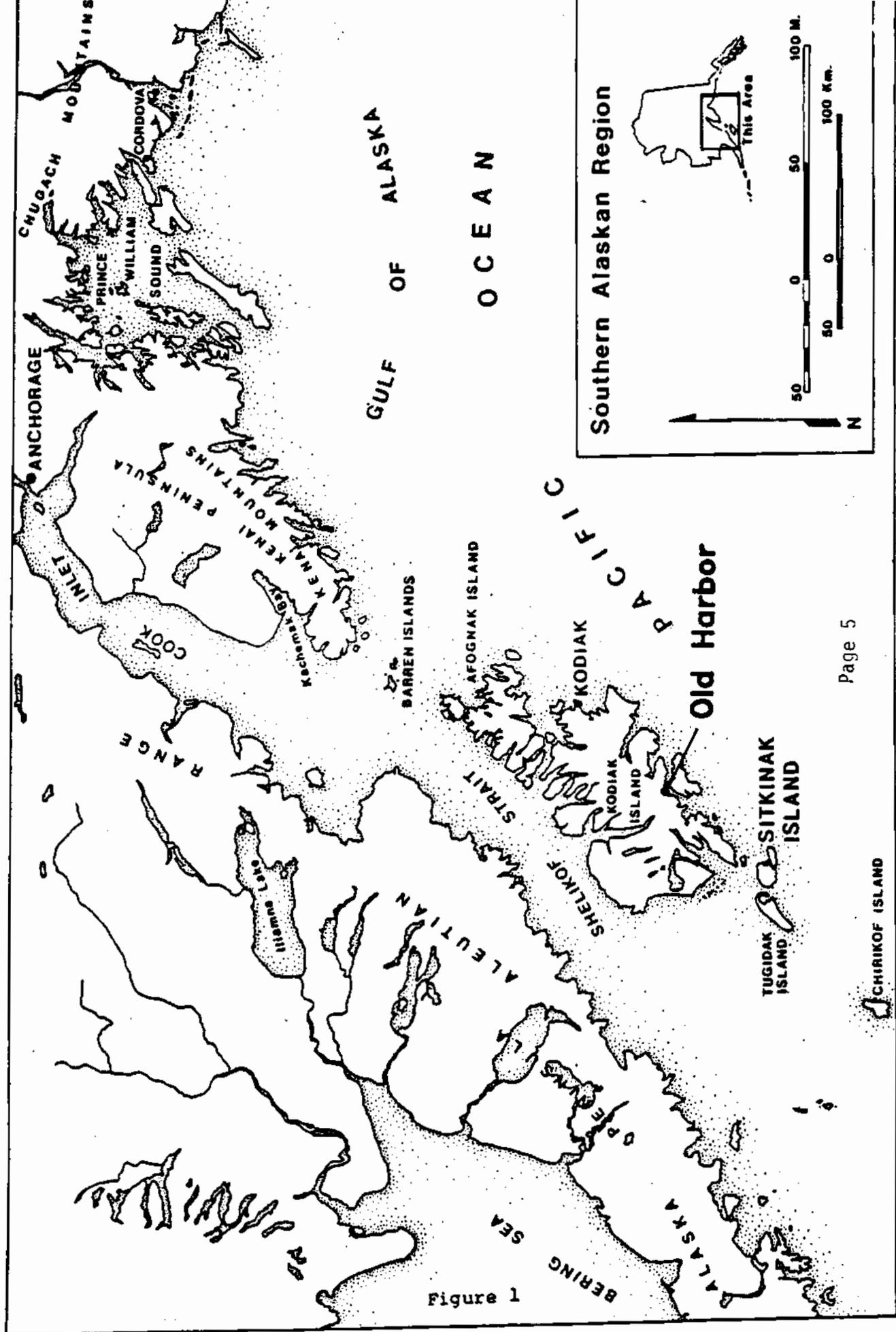
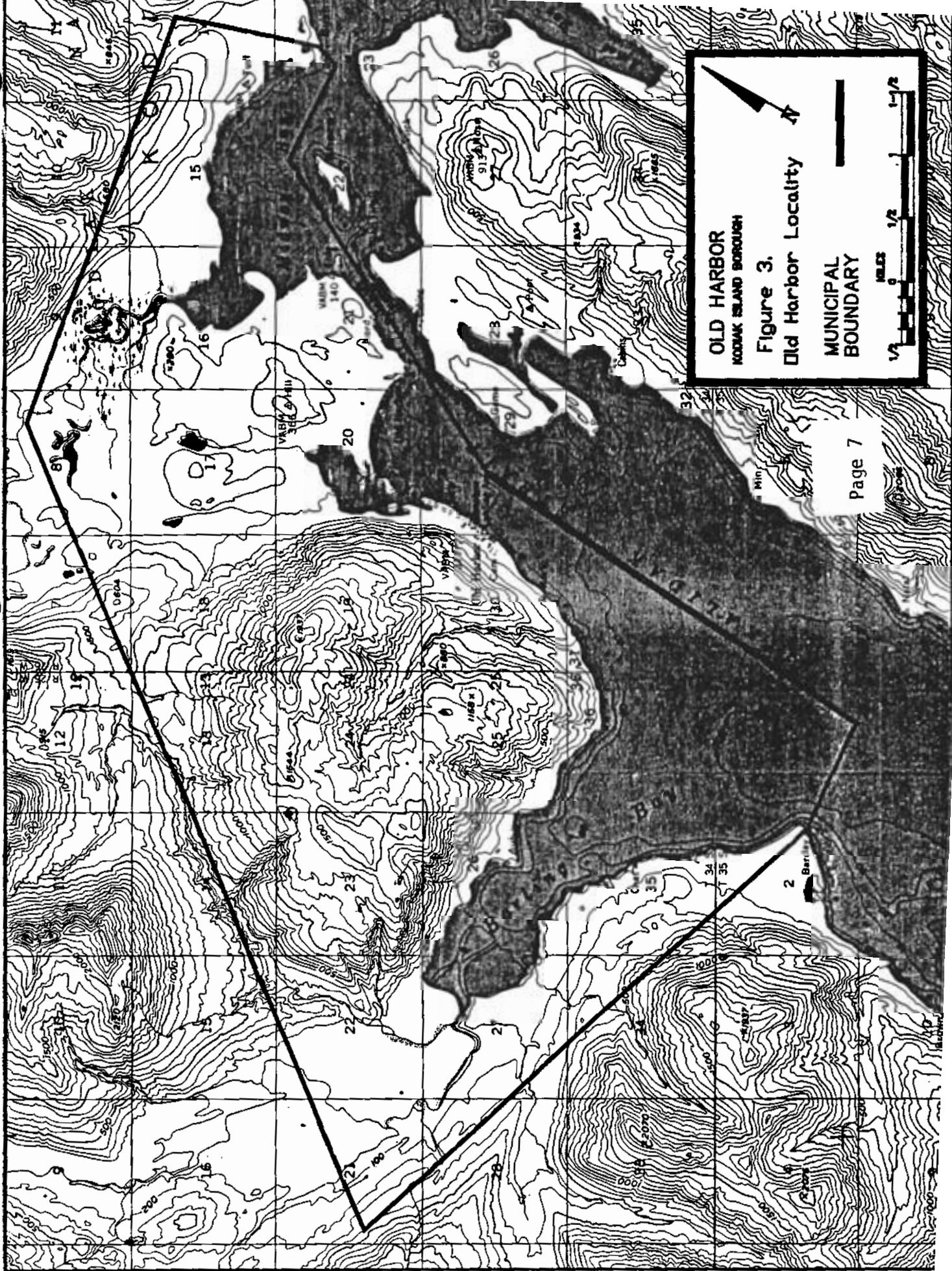


FIGURE 2



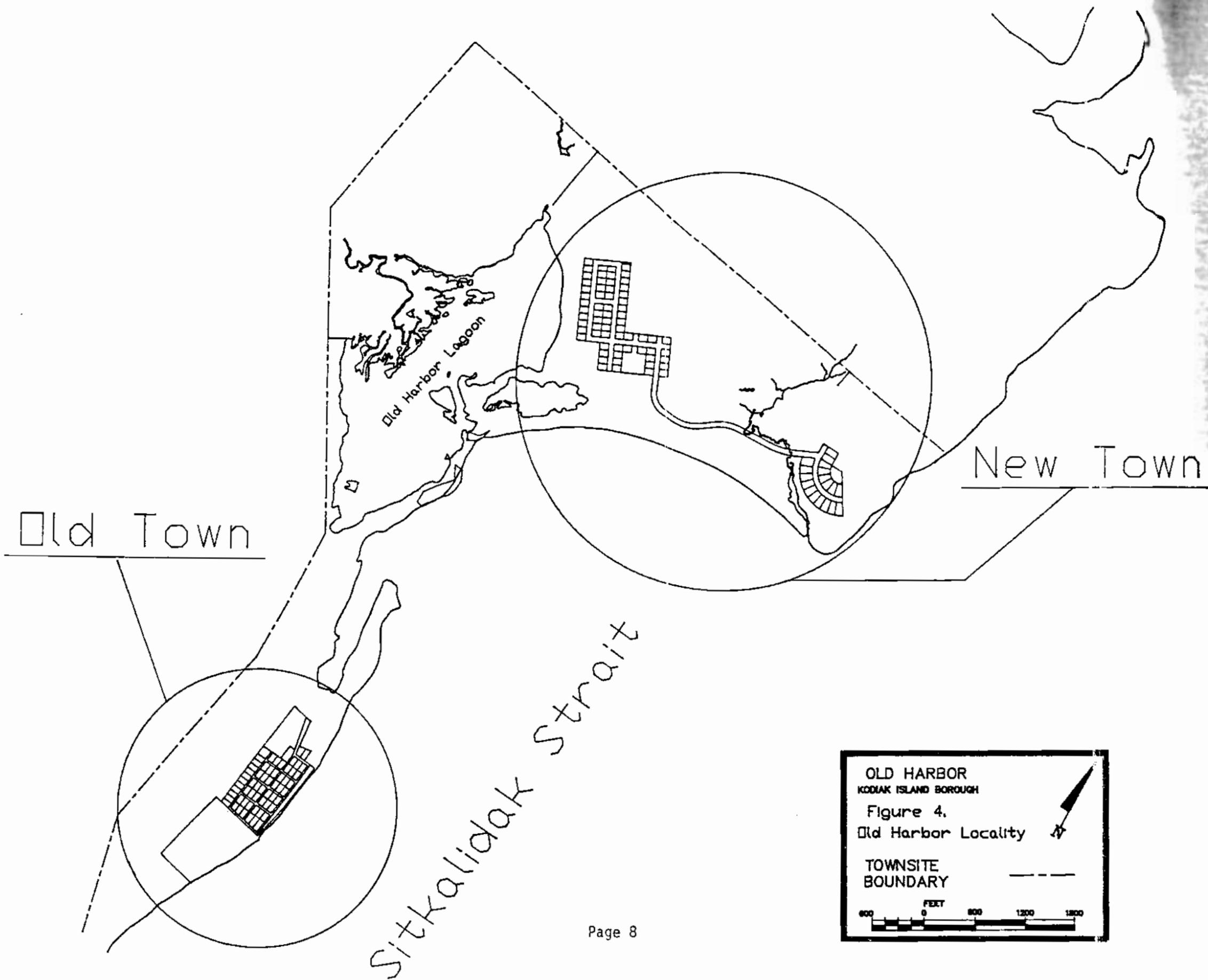


OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 3.
Old Harbor Locality

MUNICIPAL
BOUNDARY





As a second class city, Old Harbor is able to assume diverse powers under state law.

The powers assumed by Old Harbor are listed below:

Acquisition, management, and disposal of city
real and personal property
Streets
Cemeteries
Water and Sewer
Community Center
Library
Recreation facilities
Garbage Collection
Ports and Harbors
Sanitary Landfill

Old Harbor was designated as a federal townsite, U.S. Survey 4793. A townsite patent for 311.72 acres was issued to the BLM Townsite Trustee on December 5, 1968. The Trustee in turn, has since deeded occupied parcels to residents, and some vacant subdivided lots to the city. Other subdivided property remains with the Trustee. The townsite includes one shoreline municipal reserve of 0.94 acre, a 57.15 acre airport site on the spit adjacent to the townsite, and an 0.86 acre municipal reserve. A 10.4 acre Russian Orthodox Church Mission reserve lies within U.S. Survey 474 which is partially surrounded by the townsite. U.S. Survey 4793 shares a common boundary line with the Kodiak National Wildlife Refuge.

Sixteen conveyed Native allotments and 14 active Native allotment claims are located near Old Harbor. Under the Alaska Native Allotment Act of 1906, the Secretary of the

Interior may allot to individual Natives up to 160 acres of land, providing the claimant proves continuous use and occupancy.

Because the Alaska Native Allotment Act was repealed with the passage of the Alaska Native Claims Settlement Act (ANCSA), no applications for allotments have been accepted by BLM since December 18, 1971. Many applications filed prior to that date are still being processed however.

Kodiak Island Borough

The Kodiak Island Borough, a second class borough, is governed by an elected assembly of seven members and a mayor. The Borough's mandatory areawide powers are the assessment and levying of taxes, planning, platting, land use regulation, education, and health. These powers are executed on a borough-wide basis for all cities such as Old Harbor and unincorporated areas within the Borough. Other powers (e.g., parks and recreation) are executed on a non-areawide basis. The borough mayor is responsible for the administration of the borough government, including the supervision of staff.

Planning, platting and zoning for the City of Old Harbor is administered by the Kodiak Island Borough through the Borough Community Development Department. Second class boroughs are mandated to provide for planning, platting and land use regulations on an areawide basis pursuant to Chapter 29.40, Alaska Statutes. If a city in a borough consents by ordinance, the assembly may by ordinance delegate any of its powers and duties under Chapter 29.40 to the city. However, the assembly can revoke any power or duty so delegated without consent of the city. The Borough has not delegated this authority to any municipalities at this time.

Old Harbor Traditional Tribal Council

Recognized by the Bureau of Indian Affairs as the official tribal governing body for the community of Old Harbor, the Tribal Council is eligible to administer a variety of federal Indian and Alaska Native programs, including local health care, employment assistance and other social services. The Tribal Council has assigned its federal contracting authority to the Kodiak Area Native Association (KANA) by resolution. KANA in turn, administers these programs and provides the related services. Tribal Council members are elected according to the adopted constitution and bylaws. Elections are held at the same time as local municipal elections.

Village Corporation

Pursuant to the Alaska Native Claims Settlement Act (ANCSA) of 1971, the Old Harbor Native Corporation, the village corporation, was entitled to select the surface estate of 115,200 acres of federal land (equivalent to five townships)¹.

On March 8, 1979, as part of their entitlement, BLM patented and conveyed 475.29 acres to the Old Harbor Native Corporation. The corporation also received an interim conveyance to 93,308 acres on March 8, 1979, and to 8,228 acres on September 14, 1979. Patents for the land will be issued only after boundary descriptions are confirmed by survey. Under ANCSA Section 14(c)(1), the village corporation must reconvey title to the surface estate of tracts of land occupied or used by individuals as primary places of

¹ On December 6, 1980, Old Harbor's village corporation merged with the regional corporation, Koniag, Inc. The merged corporation owned the surface and subsurface rights to the land that was selected by the village corporation. The two corporations were demerged by court action in 1984. When the two entities were demerged in 1984 by the court, the Old Harbor Native Corporation only retained the rights to the surface estate of these lands.

residence or business, or subsistence campsites as of December 18, 1971. Unless otherwise agreed to by the city, a minimum of 1,280 acres must also be transferred to the City of Old Harbor under ANCSA Section 14(c)(3) for community expansion and public purposes.

The Old Harbor Native Corporation has received interim conveyance to lands within the Kodiak National Wildlife Refuge as well as to lands outside the Refuge, which are located primarily on Sitkalidak Island. These lands are not subject to any regulation by the U.S. Fish and Wildlife Service, as lands located within the Refuge may be.

There is currently a proposal for Native Corporations holding lands within or contiguous to the Kodiak Wildlife National Refuge to trade these "inholdings" for oil and gas exploration and production rights in the Arctic National Wildlife Refuge. However, due to recent developments at the federal level, it now seems unlikely that this proposal will ever be implemented.

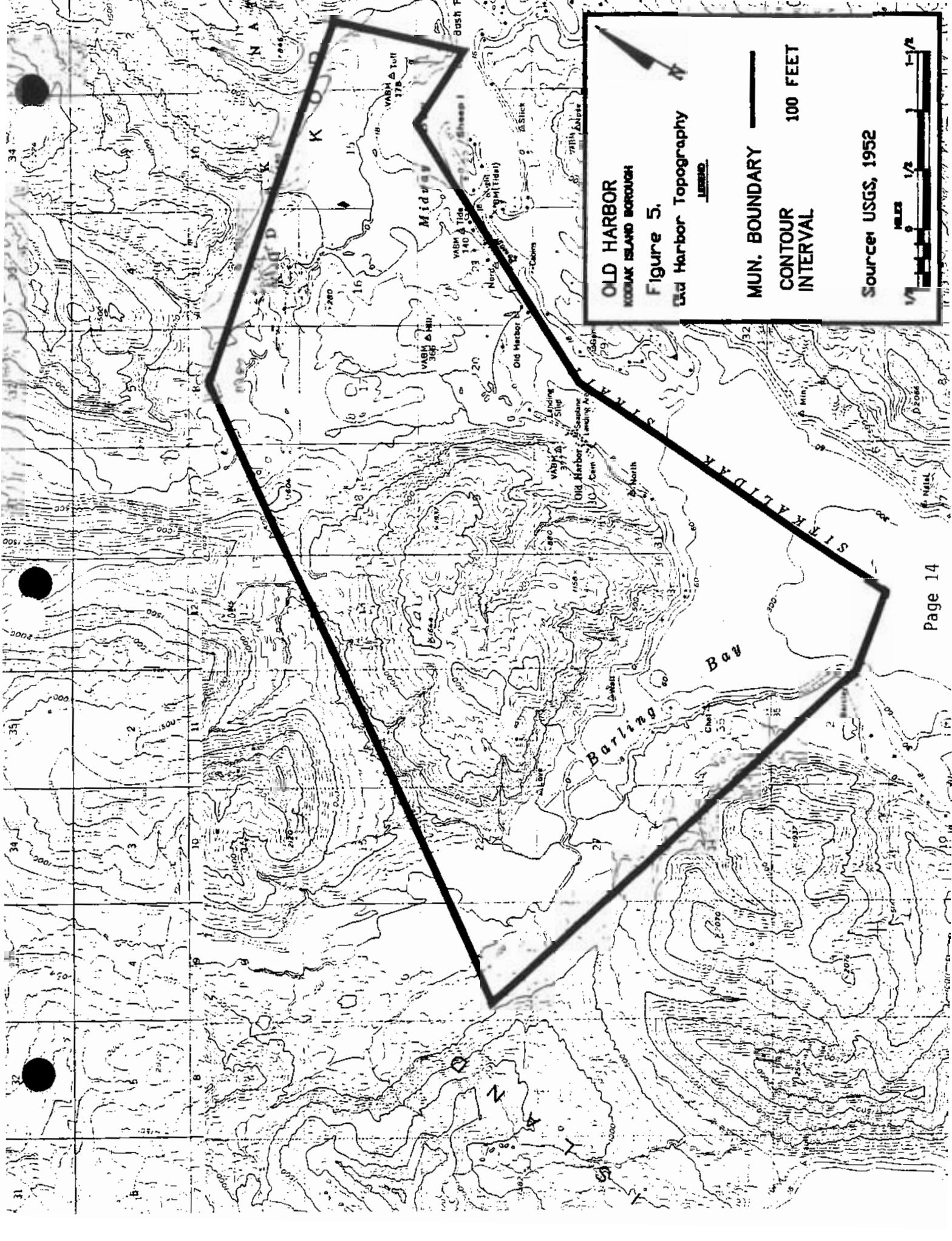
Regional Corporation - Koniag, Inc.

Koniag, Inc., is the regional native corporation formed pursuant to the Alaska Native Claims Settlement Act (ANCSA) of 1971 and is a private, for profit corporation. As a result of the 1984 demerger, Koniag, Inc., today holds only the subsurface estates to lands selected and conveyed to the Old Harbor Native Corporation.

Topography

The old town portion of Old Harbor is situated on a narrow sandy shelf or beach between Sitkalidak Strait and the base of mountains which rise abruptly to an elevation

of 1,900 feet. Sitkalidak Island, lying directly to the south across the Strait, rises abruptly from the sea to elevations of over 2,000 feet. The new town portion of Old Harbor is located in an area of rolling hills made up of glacial deposits. The topography in this area is less severe than the surrounding terrain, with a maximum elevation of about 350 feet.



OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 5.

Old Harbor Topography

Legend

MUN. BOUNDARY

CONTOUR INTERVAL
100 FEET

Source: USGS, 1952



Climate

The climate of the Kodiak Archipelago is dominated by a strong marine influence. The area is characterized by moderately heavy precipitation, cool temperatures, and high cloud and fog frequency with little or no freezing weather. The humidity is generally high and the temperature variation is small.

Temperature patterns are characterized by relatively cool summers and warm winters. The temperature at Old Harbor ranges from 24 degrees Fahrenheit (-4 degrees Celsius) to 60 degrees Fahrenheit (15 degrees Celsius). There are approximately 60 inches of precipitation a year. The number of wet days per year averages between 100 and 150 in the Kodiak Archipelago.

Two types of winds are found in the Kodiak Archipelago. One type consists of a very narrow band produced by a strong pressure gradient. These winds usually come over the mountains down long narrow valleys, then extend over the water where they spread out and dissipate. Storm winds, on the other hand, are generated in the Gulf of Alaska/Pacific Ocean, and often sustain speeds from 50 to 75 knots. Frequently storms remain stationary resulting in winds that create substantial wave action which impacts coastal facilities. The most severe storms occur from December through February.

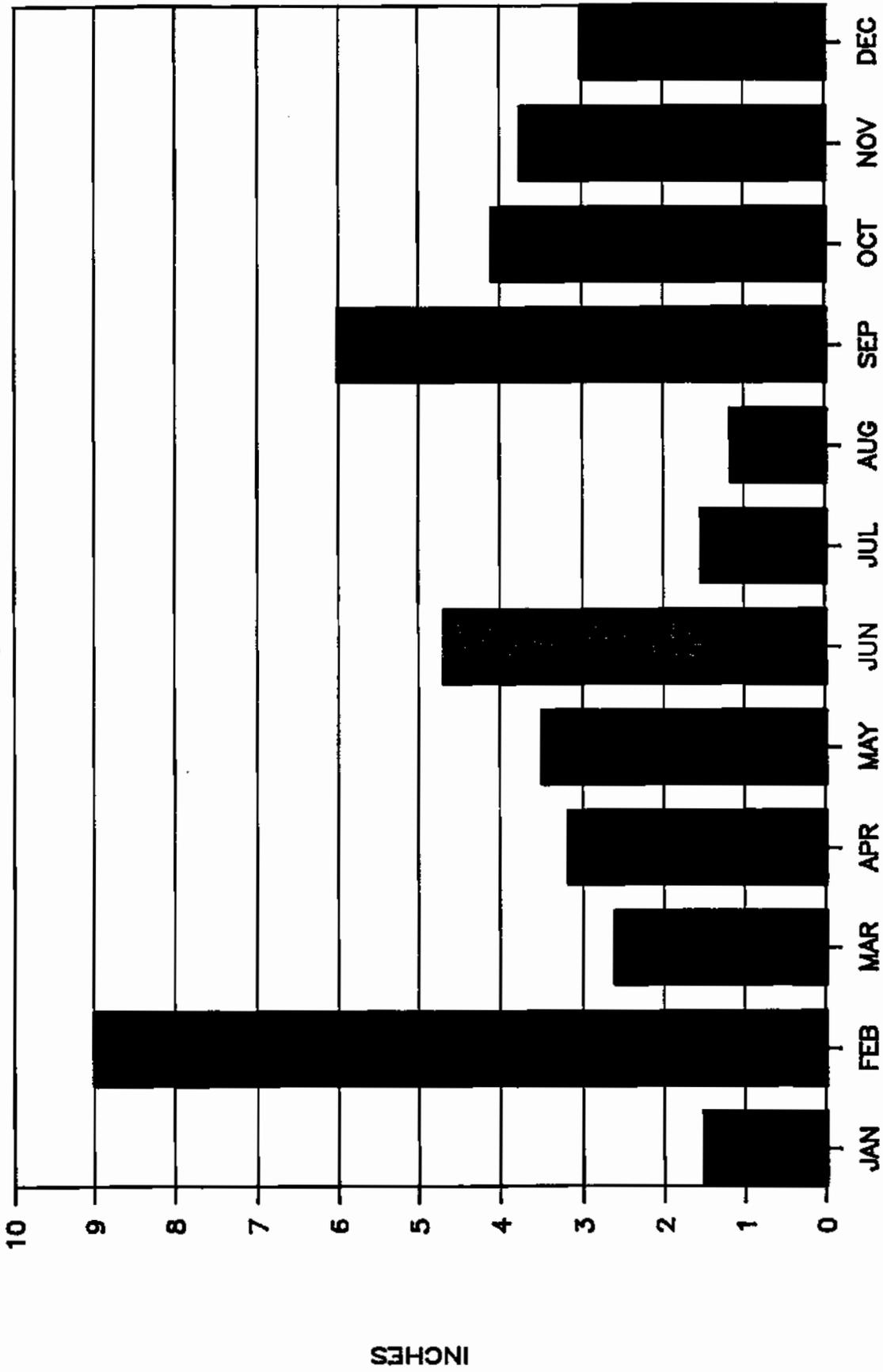
Sky cover/visibility and icing are two other climatological features of importance in the Kodiak Archipelago. Anything in the air which reduces visibility to six miles or less is recorded as an obstruction to vision. Fog and low clouds are the principal causes of reduced visibility and can be expected about 10 percent of the time during the year.

Icing primarily affects sea-going craft. It is dependent on atmospheric conditions, and a ship's size/behavior. It is caused either by heavy freezing spray, freezing rain, or fog. Icing can occur when the air is below 28 degrees Fahrenheit, the freezing temperature of seawater, and the sea surface temperature is below 41 degrees Fahrenheit. Icing, which can be a serious problem from December through February when the air is cold and the sea temperature declines, has caused damage to vessels and loss of life.

No U.S. Weather Recording Station is presently located in the Old Harbor area. The Arctic Environmental Information and Data Center, of the University of Alaska, Anchorage collected climate information for the years 1968 - 1971 for Old Harbor. This information has been summarized on Figures 6, 7, and 8.

OLD HARBOR CLIMATE INFORMATION

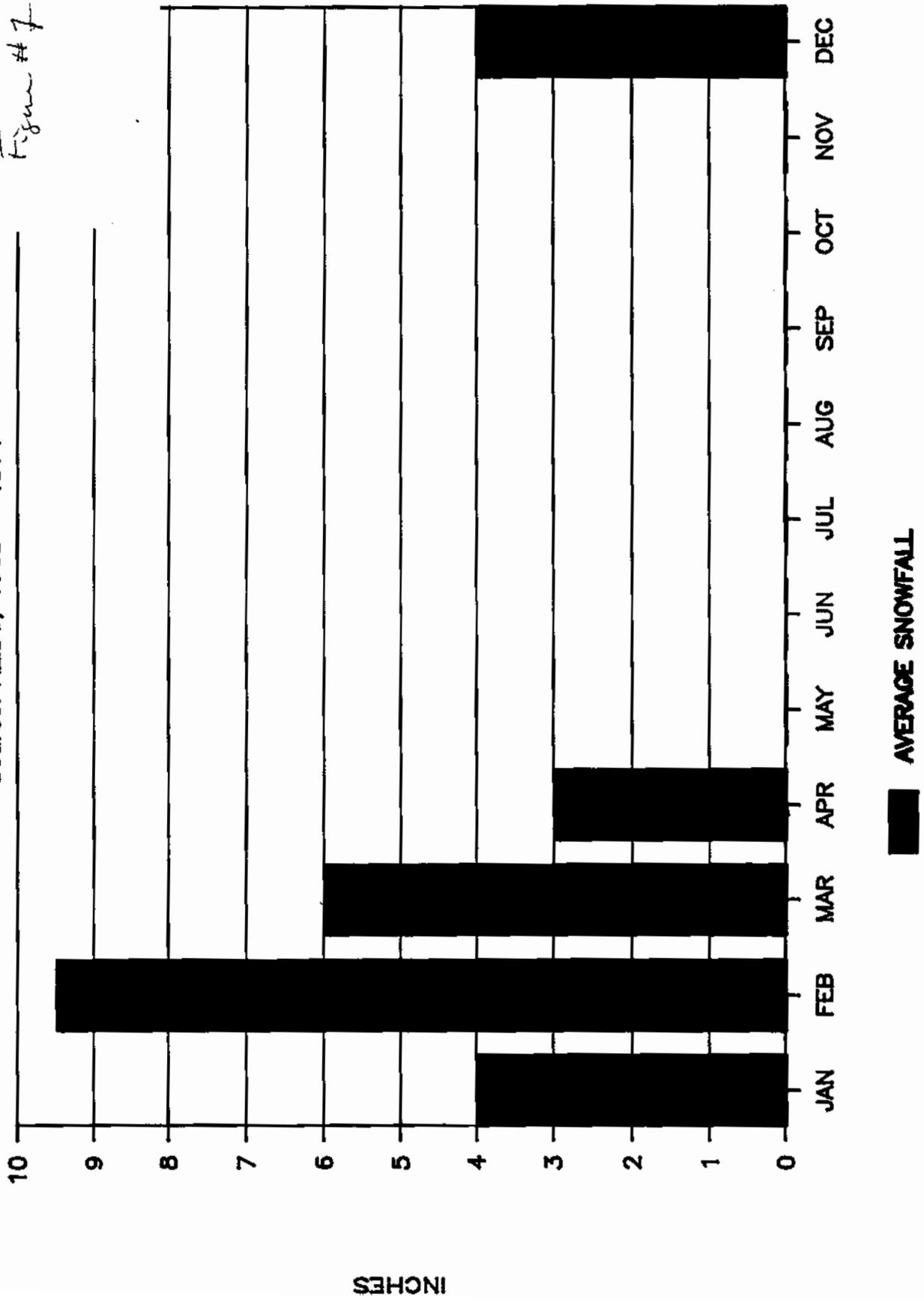
Source: AEIDC, 1968 - 1971



OLD HARBOR CLIMATE INFORMATION

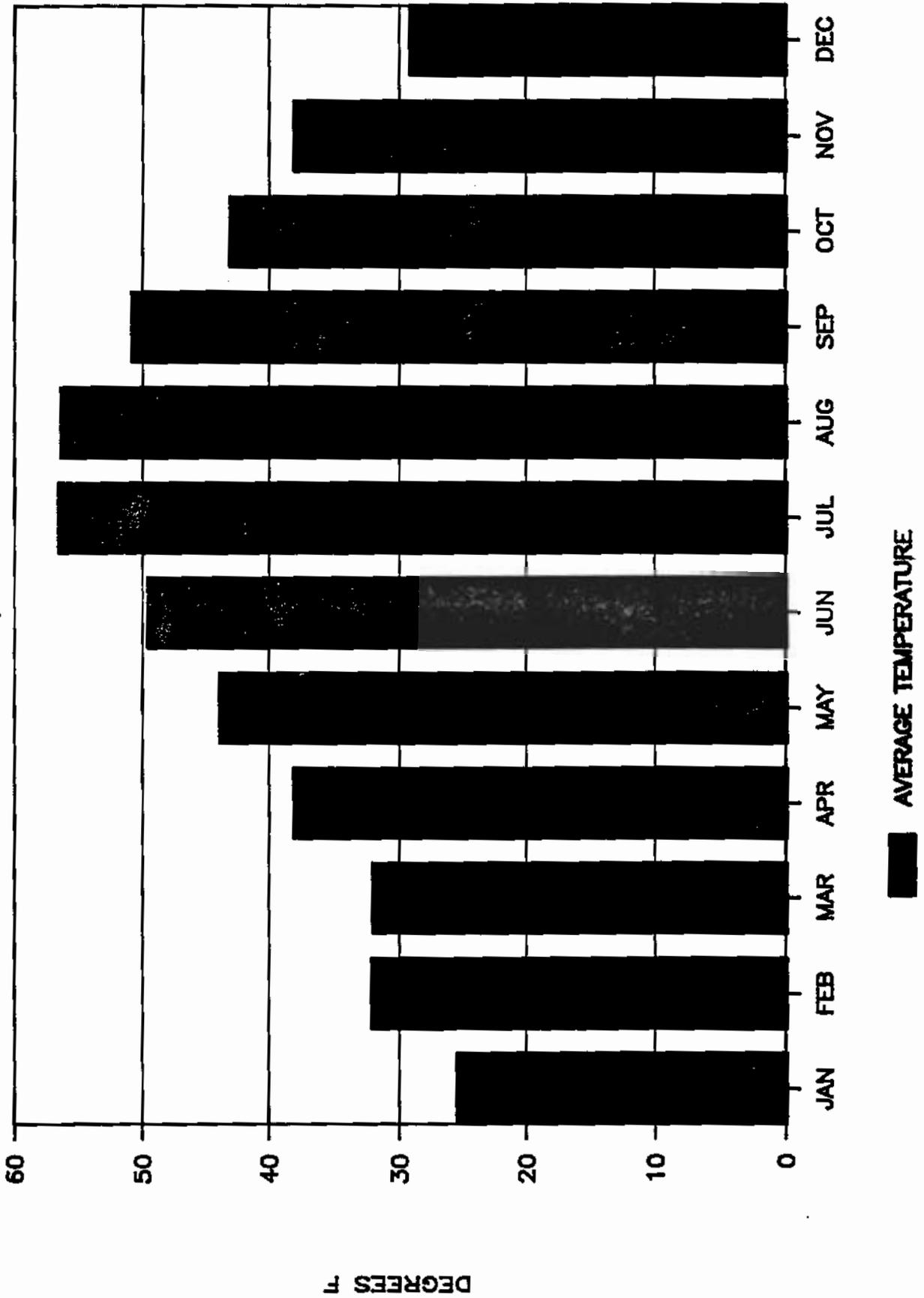
Source: AEIDC, 1968 - 1971

Figure #7



OLD HARBOR CLIMATE INFORMATION

Source: AEIDC, 1968 - 1971



Tides, Currents and Coastal Processes

Tides in the Kodiak Archipelago are generally typical of the west coast of the United States. There are usually two high and two low tides each day. High and low tides arrive at Old Harbor 14 minutes earlier to 14 minutes later than at Kodiak Harbor. The maximum range between high and low tides at Old Harbor is 8.0 to 9.9 feet. Sitkalidak Passage/Strait, between Old Harbor and Sitkalidak Island, often experiences currents of up to 3 knots.

Tidal currents are causing an erosion problem for the access road connecting the southern and northern portions of the village where it crosses the lagoon separating the two sections of town.

Physical Hazards

The village of Old Harbor is subject to a number of physical hazards. Historically, physical hazards in Old Harbor have included earthquakes, tsunamis, land slides, erosion, and volcanic ash fallout. The first three hazards may sometimes be related as earthquakes, tsunamis, and landslides can often occur due to a single seismic event.

A large portion of the old town, which includes the school and most other community structures, and a large residential area of about 50 dwellings is located in the tsunami run-up zone. The airstrip and the small boat harbor are also located in this zone and therefore subject to damage by a seismic event as well as the resulting wave action. In addition, due to the steep topography, old town is also vulnerable to the possibility of landslides.

Erosion is a threat to Old Harbor primarily due to its location near the shore. Tidal currents and storms have tended to erode the raised roadway linking old town and new town. In addition, erosion of steep terrain, especially in the area of old town, could be a contributing factor to landslide activity. As long as the surrounding hillsides are well vegetated, however, this threat is minimal.

Another hazard previously mentioned is the possibility of ash fallout as a result of volcanic eruption. Local hazards due to volcanic activity come from the active volcanic ridges along the Alaska Peninsula. While the village is not in direct danger, the volcanically active mountains of the Alaska Peninsula could erupt and spew ash and dust into the atmosphere and over Kodiak Island when winds are right. This can present a respiratory problem for humans and animals as well as causing extensive damage to machinery which must be operated during these types of events. Additional damage could be caused by corrosive rains which are caused by the acidic volcanic gases mixing with precipitation. There has not been much volcanic activity recently, however, in 1912, the volcanic eruption of Mt. Katmai blanketed Old Harbor with two to six (2 - 6) inches of volcanic ash.

Geology

Kodiak Island and the associated smaller islands making up the Kodiak Island group are located in the Western Gulf of Alaska. The islands are separated from the Alaska Peninsula by lower Cook Inlet and Shelikof Strait. Kodiak, Afognak, Spruce, Sitkinak, Tugidak and Chirikof Islands are rugged land masses dominated by the glacially northeast trending Kodiak mountains. Some of the mountain peaks rise to heights of 4,000 feet or more.

The islands were formed primarily from extensive marine sediment deposition and volcanic activity. Most of the islands are dominated by cretaceous and Upper Jurassic rocks of sparsely fossiliferous graywacke, slate, argillite with minor conglomerates, volcanic detritus, and interbedded mafic volcanics. The Kodiak Archipelago has undergone extensive uplift and glaciation, the result of which is a sea coast cut by deep narrow scoured straits and fjords, and steep, rocky sea bluffs.

The soils throughout the Archipelago are relatively shallow. Surficial deposits are located primarily at valley bottoms and along the narrow coastal plain. Many areas at the heads of bays are not suitable for development because of poorly drained soils or high water tables. Old town is typical in that it is located in an area of shallow soil. New town, however, is located on glacial deposits where the soils are somewhat deeper.

Nonrenewable Resources

The Kodiak Archipelago has areas identified as potential mineral belts. Lode deposits containing gold, silver, copper, lead, tungsten, zinc and possibly chromium occur in these mineral belts, but few have been mined. Placer gold is the main mineral that has been exploited to date. Mineral claims are concentrated along the coastline.

Old Harbor is located southeast of the identified mineral provinces. However, gold, zinc, copper, lead and silver lode deposits have been located near Old harbor - primarily on Sitkalidak Island. Gold lode deposits have been identified near the village of Old Harbor.

Fish and Wildlife

Fish

Fishing is a major source of income, employment, and food throughout the Kodiak Archipelago. Major fisheries currently being exploited include finfish (salmon, halibut, herring, and bottomfish) and shell fish (crab and scallops).

Finfish, particularly salmon, halibut, and herring, are harvested for subsistence and commercial purposes in large quantities in Kodiak Archipelago waters. According to the Alaska Department of Fish and Game, Old Harbor is a diversified fishing community. Most village residents balance their fishing activities between salmon, herring, ground fish, and shell fish. It is estimated that Old Harbor is the second most active fishing community on Kodiak Island, following the City of Kodiak. Salmon are the most sought after species by the village residents. It is estimated that in 1988 there were 72 purse seine permits, 2 beach seine permits, and 1 set gill net permit owned by village residents.

Five species of salmon swim the waters of the Kodiak Archipelago: pink (humpback), Chinook (king), red (sockeye), silver (coho), and chum (dog). Pink salmon are the dominant species harvested, followed by chum and red.

The adults of all species of salmon migrate from the ocean into fresh water streams or lakes to spawn. They migrate in the summer and fall, usually returning to the same waters where they began life. Upon reaching the spawning grounds, the female salmon lays her eggs on the gravelly bottom of the stream or lake. The male fertilizes the eggs which are then covered with layers of gravel. Newly hatched fry, emerging after

absorbing the egg yolk sac's food reserves, stay in fresh water for varying periods of time before migrating to salt water.

Pink salmon are abundant from mid-July through mid-August. They spawn during late summer, and the eggs develop in the gravel through the winter. Upon hatching, the young migrate directly into salt water. There they spend the next 1 1/2 years before returning to their place of origin to spawn. All salmon die after spawning.

Halibut also are abundant in Kodiak area waters. Females grow to a larger size than males and may attain weights of 460 pounds, while the males may weigh up to 120 pounds. Halibut have been found most numerous between 30 and 70 fathoms.

In recent years, the Old Harbor area has been one of the major sites of the sac roe herring fishery which generally occurs prior to June spawning. Large quantities of herring are found in almost all the bays of the Kodiak Archipelago. Spawning takes place along the shore from late April to early June. After the sac roe fishery which occurs prior to June spawning, herring is taken commercially for bait and reduction purposes.

The waters surrounding the Kodiak Archipelago are also abundant in shellfish. Tanner crab, dungeness crab, six distinct stocks of king crab, scallops, and six species of shrimp have been harvested. According to estimates from the Alaska Department of Fish and Game, Old Harbor is very active in commercial shell fish harvests, particularly for crab.

Marine Mammals

Twenty-three marine mammal species inhabit the coastal waters near the Kodiak Archipelago. The five most abundant mammals are the sea lion, harbor seal, sea otter, and dall and harbor porpoises. Fur seals are only seen offshore during spring and fall migrations. In addition, seven species of endangered whales can be found in the area. The most abundant cetaceans are the gray whale and the humpback whale.

The harbor seal, a land breeding marine mammal, prefers sandy beaches or sand bars for breeding, pupping and hauling out. The Stellar sea lion, a common inhabitant of near-shore waters, establishes rookeries and hauling out grounds on isolated rocks, inlets and rocky points along the mainland and islands. The world's largest known populations of harbor seal and most important breeding rookeries are found in the Kodiak Archipelago. Sea otters inhabit shallow coastal waters. Rocky reefs and shoals which open to the ocean are their preferred areas. Sea otters and fur seal were hunted extensively at the turn of the century and their numbers were reduced. However, their numbers are slowly increasing because they are protected by the Marine Mammal Protection Act of 1972 and international treaty.

Terrestrial Mammals

The Kodiak Archipelago is inhabited by about 20 species of mammals. Only six - the little brown bat, tundra vole, red fox, brown bear, short-tailed weasel, and land otter - are indigenous. However, several mammals have been transplanted successfully, including the Sitka black-tailed deer, arctic ground squirrel, Norway rat, house mouse, northern red squirrel, marten, beaver, muskrat and arctic fox. The latter five species were

introduced for trapping purposes. In addition, snowshoe hare, Roosevelt elk, Sitka black-tailed deer, mountain goat and dall sheep were imported for hunting.

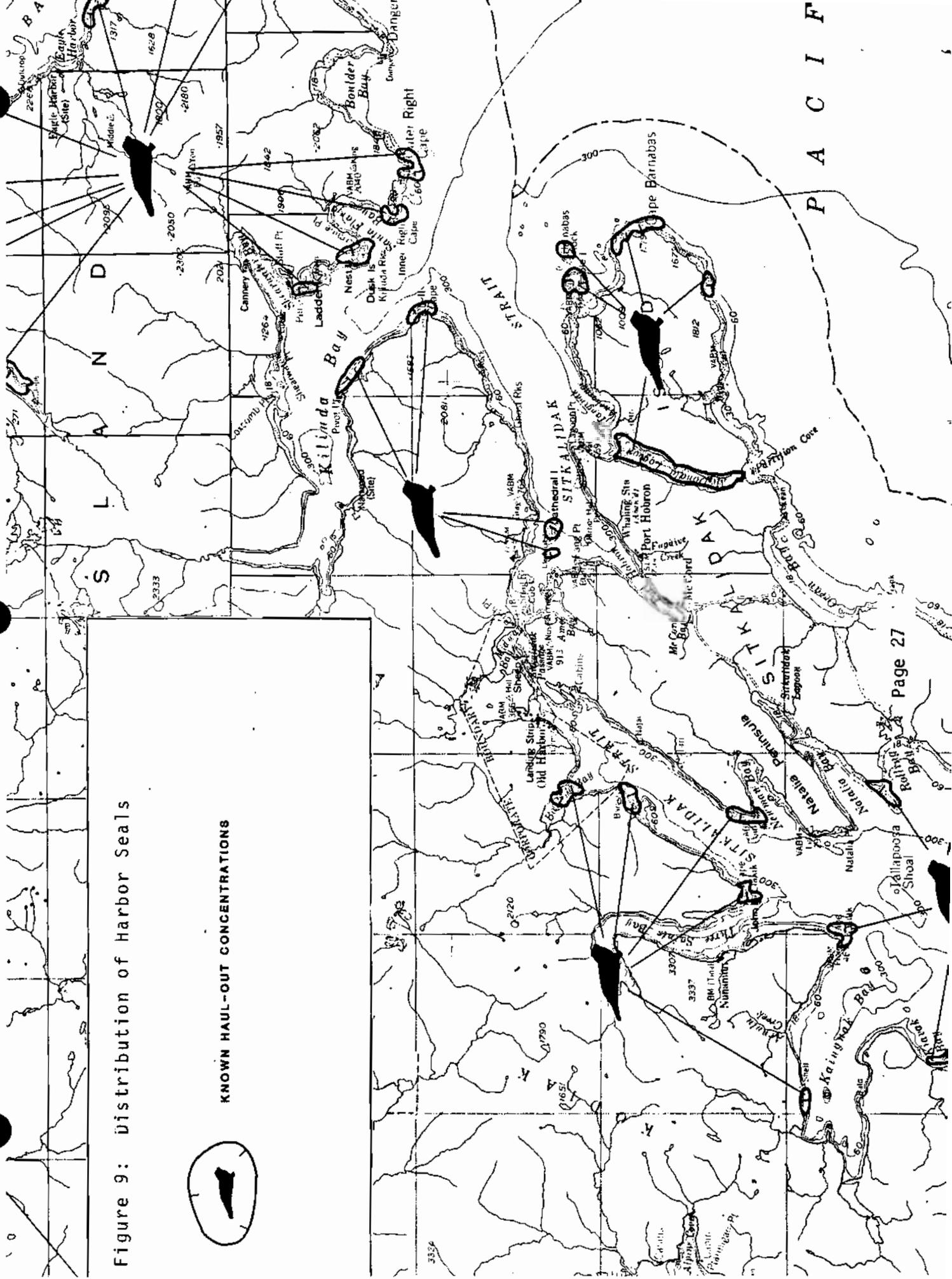
Only three of the larger mammals are found within close proximity to the village: red fox, Kodiak brown bear and Sitka black-tailed deer. The red fox is known to hunt and forage along the beaches for invertebrates and stranded fish. The Kodiak brown bear has an estimated population exceeding 3,000. Brown bear frequent the coastal areas from April to mid-November. River otters also are a frequent visitor to the coastal areas. They forage on small fish, clams, crustaceans, and other invertebrates.

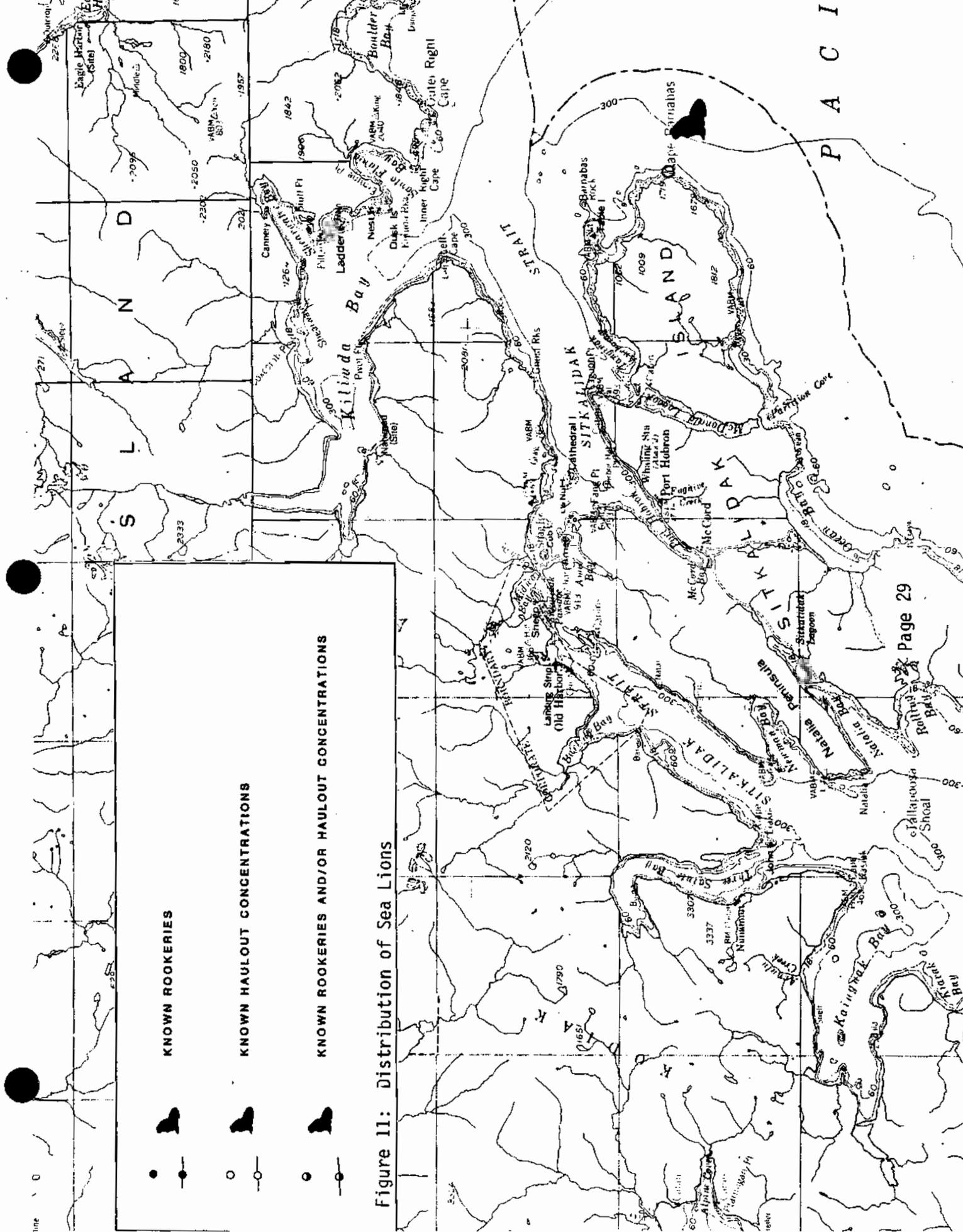
Birds

There have been over 200 species of birds observed in the Kodiak Archipelago, however many are only passing through enroute to major breeding grounds farther north. The most abundant marine species are the sooty and short-tailed shearwaters which occur as summer residents in flocks of 25,000 to 50,000 birds. Other common species include the glaucous-winged gull, fork-tailed storm petrel, black-legged kittiwake, mallard, green-winged teal, widgeon, and pintail. Both tufted and horned puffins are common summer breeding species on small offshore islands throughout the Kodiak Archipelago. Other conspicuous birds include the common loon, pelagic and red-faced cormorant, phalarope, jaeger, tern, tundra swan, and common murre. Inland birds common to the area in the summer months include mergansers, goldeneye, eider, snipe, magpie, crow, thrush, warbler, and sparrow. The bald eagle, goshawk, willow and rock ptarmigan, belted kingfisher, downy woodpecker, raven, winter wren, varied thrush and song sparrow are year-round residents.

Figure 9: Distribution of Harbor Seals

KNOWN HAUL-OUT CONCENTRATIONS





KNOWN ROOKERIES

KNOWN HAULOUT CONCENTRATIONS

KNOWN ROOKERIES AND/OR HAULOUT CONCENTRATIONS

Figure 11: Distribution of Sea Lions

Figure 12: Distribution of Brown Bears

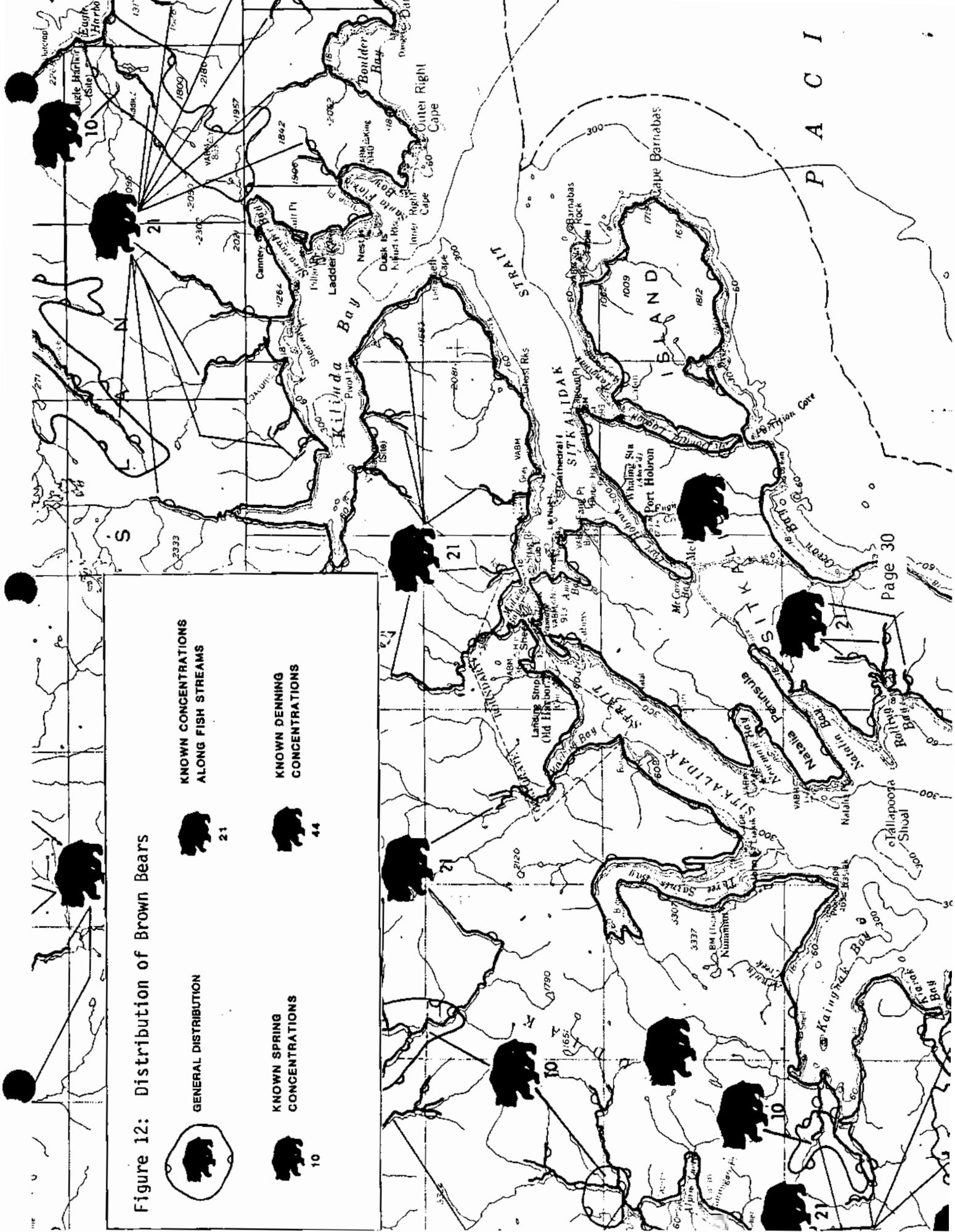
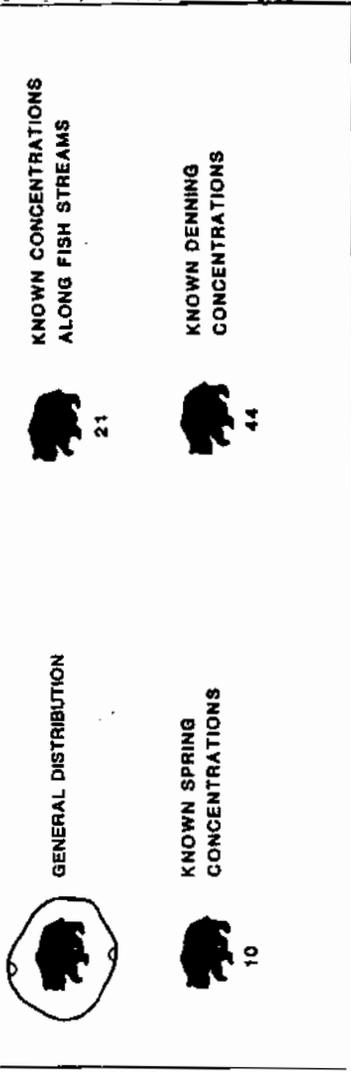


Figure 13: Distribution of Beaver



GENERAL DISTRIBUTION



KNOWN HIGH DENSITY AREAS

52

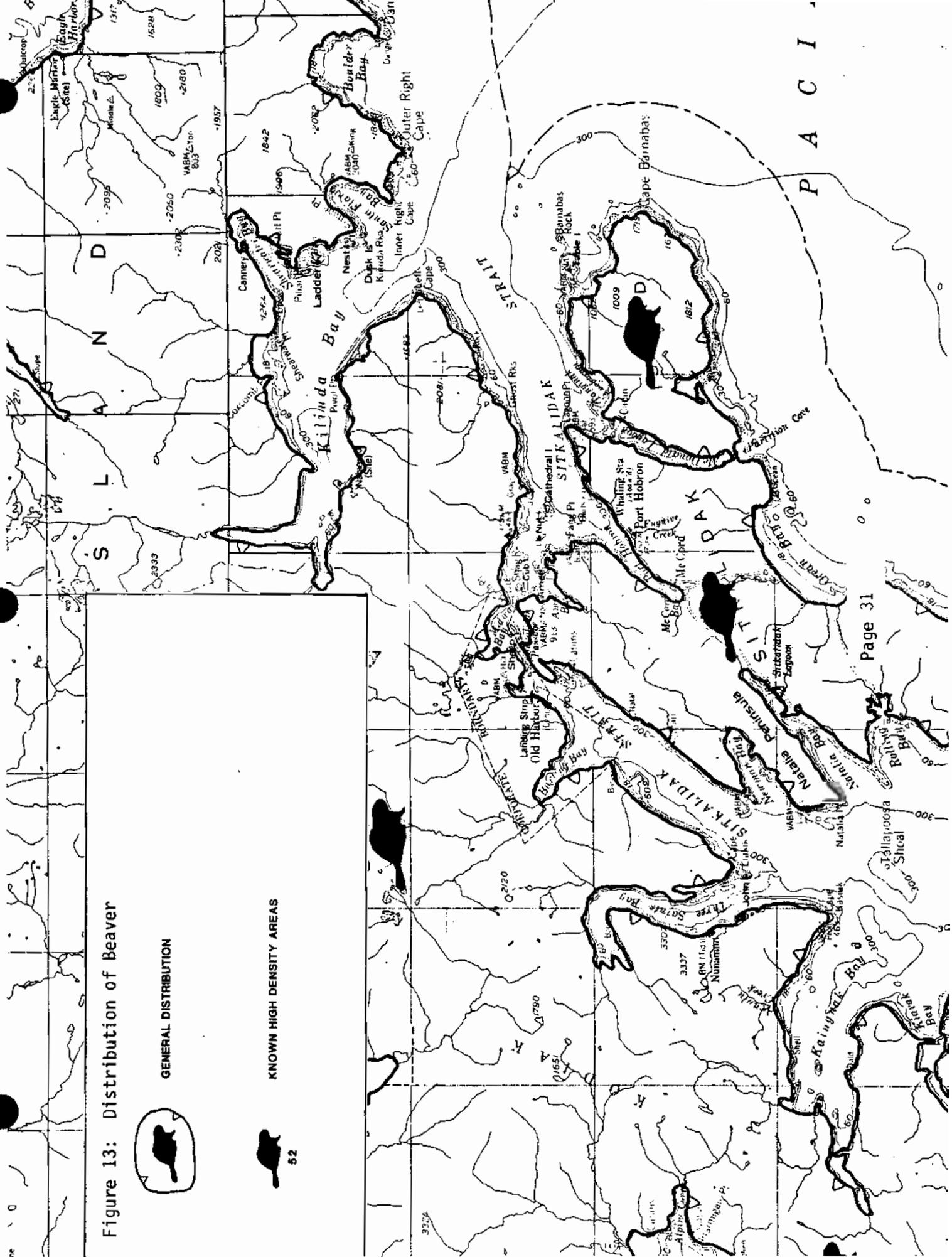
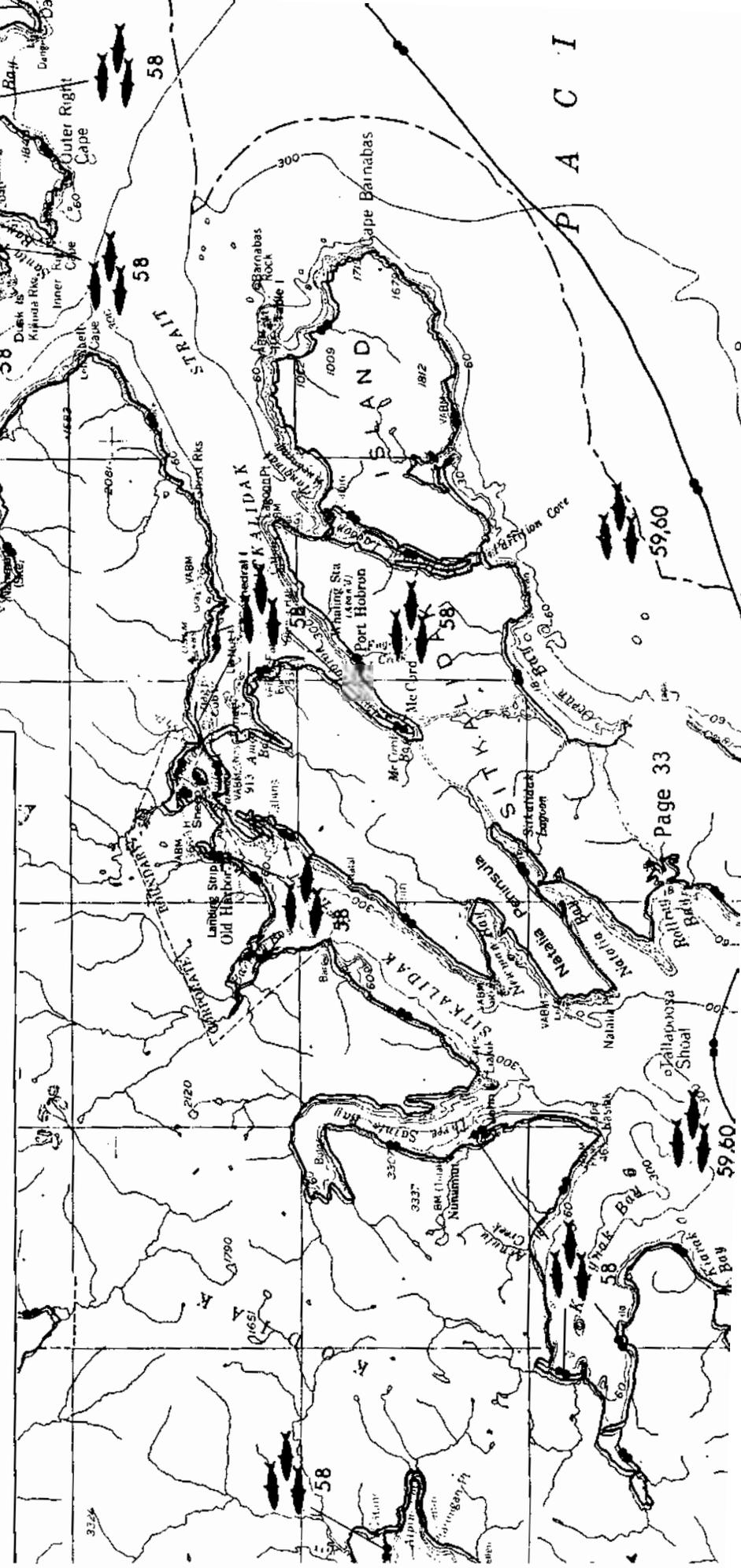
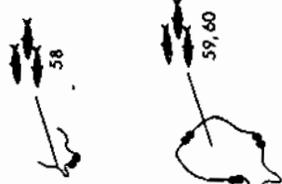
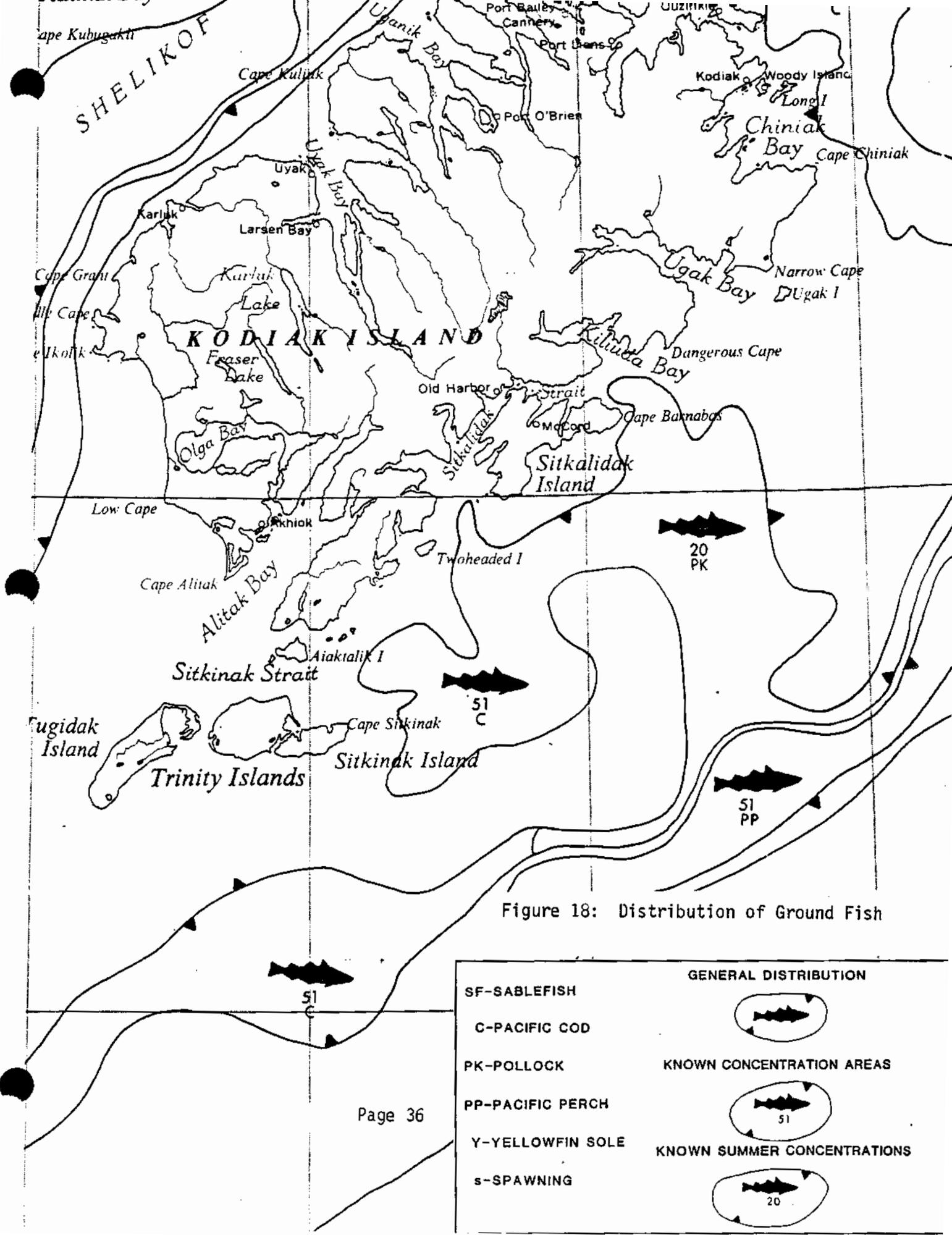


Figure 15: Distribution of Pacific Herring

- 58 KNOWN SPAWNING AREAS
- 59 KNOWN REARING AREAS
- 60 KNOWN FEEDING AREAS





	Anadromous Watershed-Drainages with documented presence of anadromous fish.
	Not Present in Watershed-Waters which have been surveyed and where anadromous fish were documented to not be present.
	Unsurveyed Watershed Areas—Areas where documentation of presence or absence of anadromous fish species is not available.

Documented Presence in Stream or Lake—the presence of a species in a specific stream segment or lake during any time of year or life cycle has been observed.

X—one or more of anadromous species.

Documented Spawning, Rearing, and Migration—the presence of spawning, rearing and migrating fish, eggs or eggs has been observed in a stream, lake shore or intertidal beach. For detail of known spawning, rearing areas see An Atlas to the Catalog of Waters Important for Spawning, Rearing or Migration of Anadromous Fishes.

Documented presence shown on a scale 1/63,000 map but does not appear at a scale 1/280,000 map.

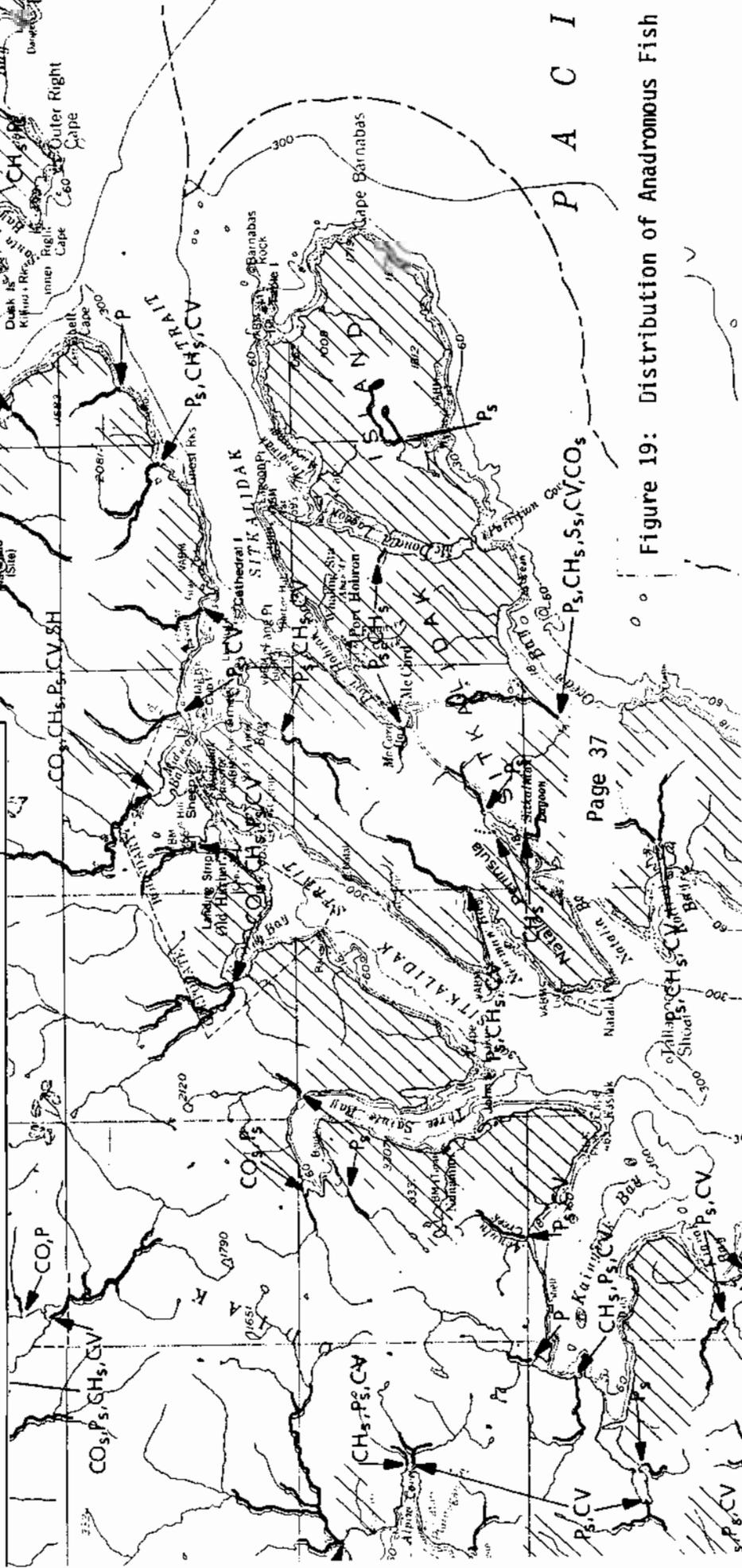


Figure 19: Distribution of Anadromous Fish

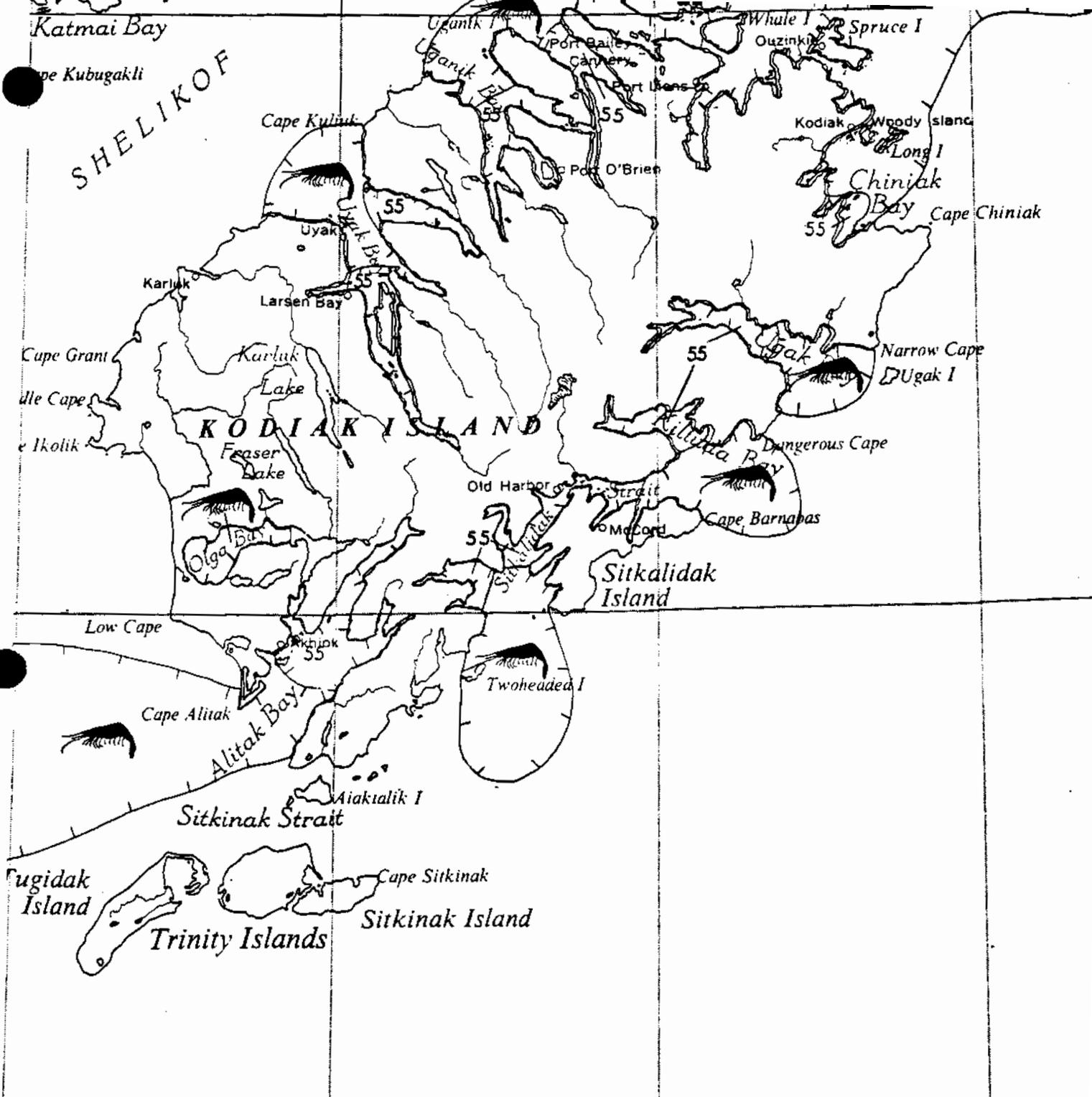


Figure 20: Distribution of Shrimp



GENERAL DISTRIBUTION



KNOWN EGG HATCH
/REARING CONCENTRATIONS

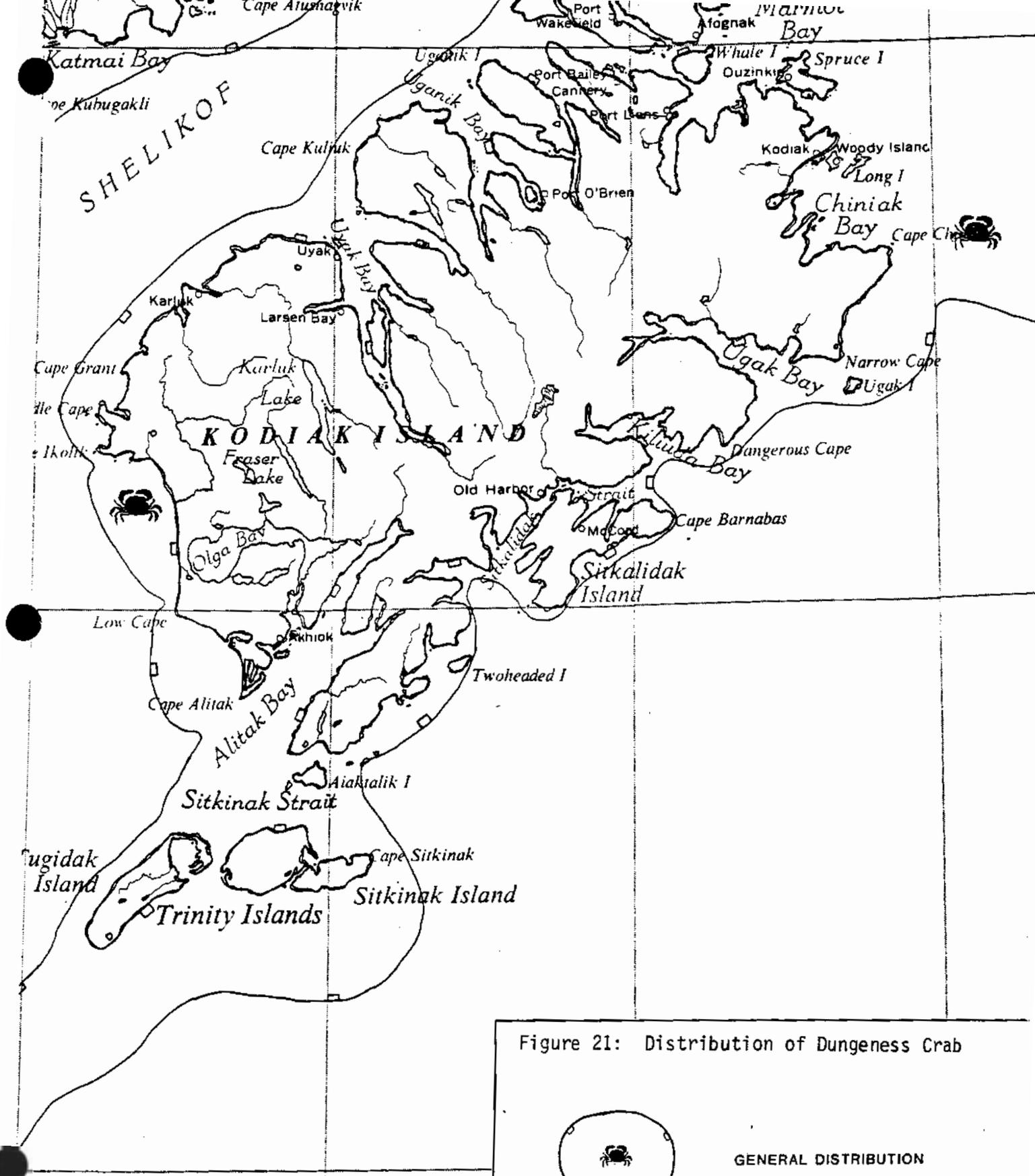
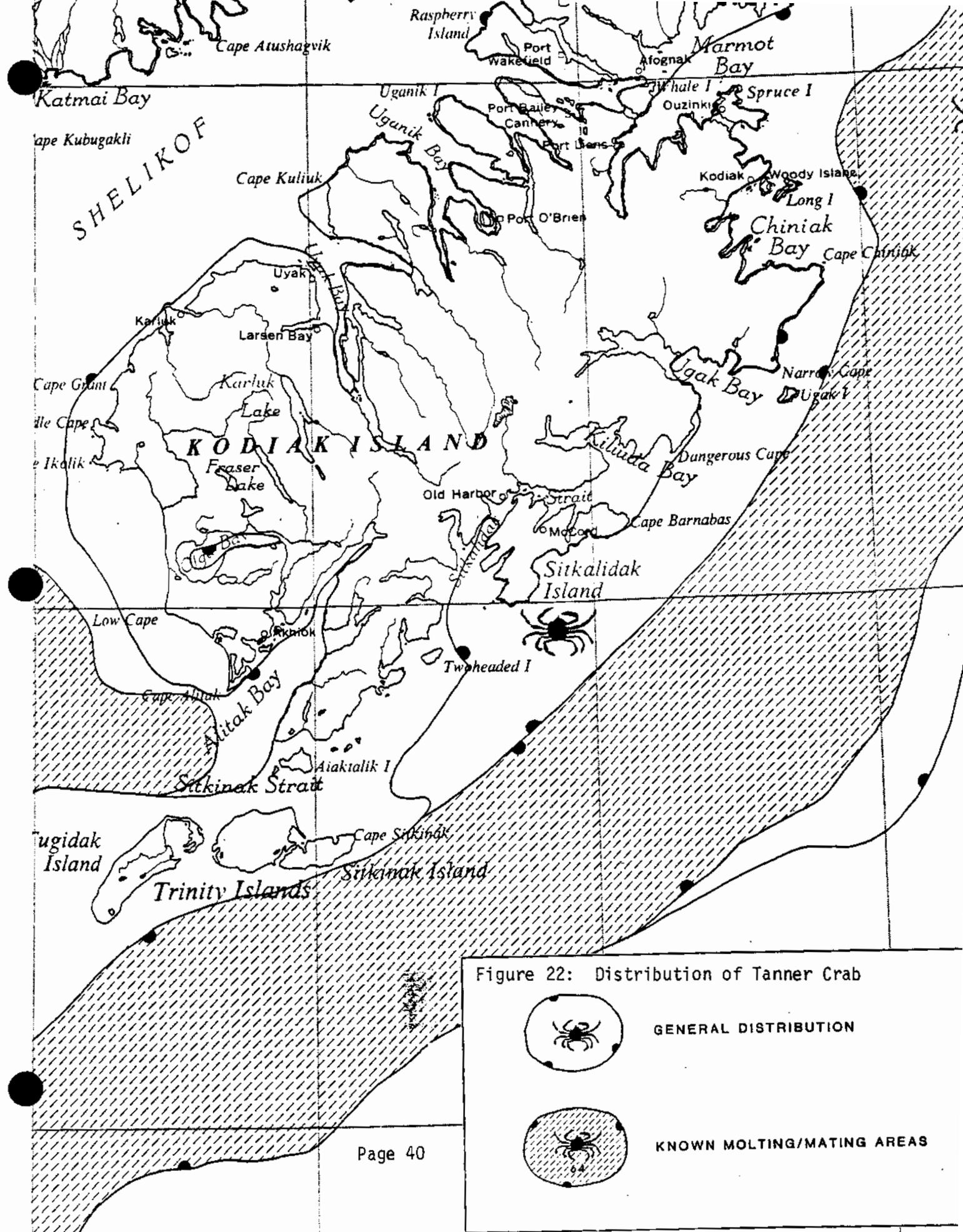


Figure 21: Distribution of Dungeness Crab



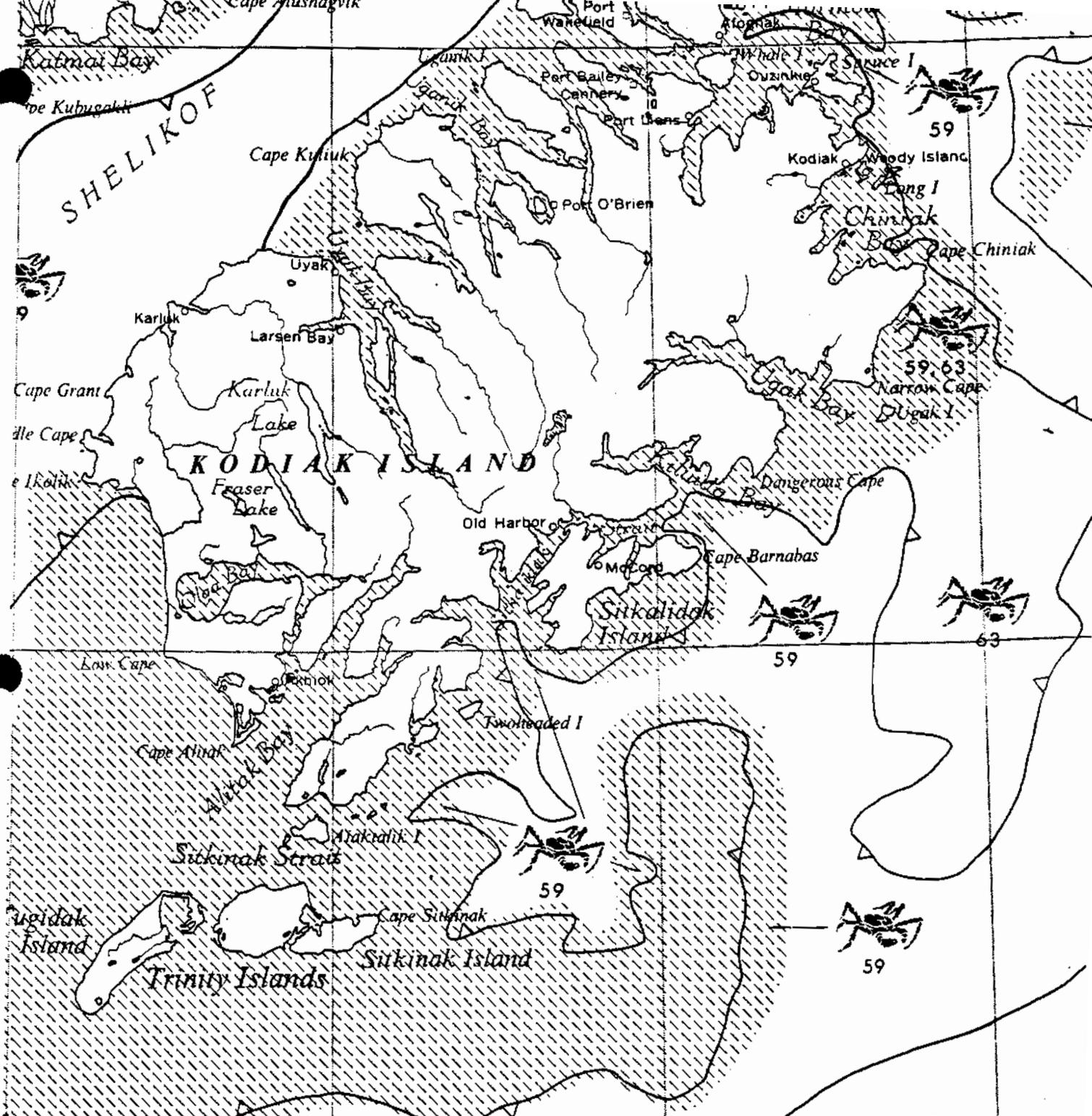


Figure 23: Distribution of Red King Crab

LEGEND



GENERAL DISTRIBUTION

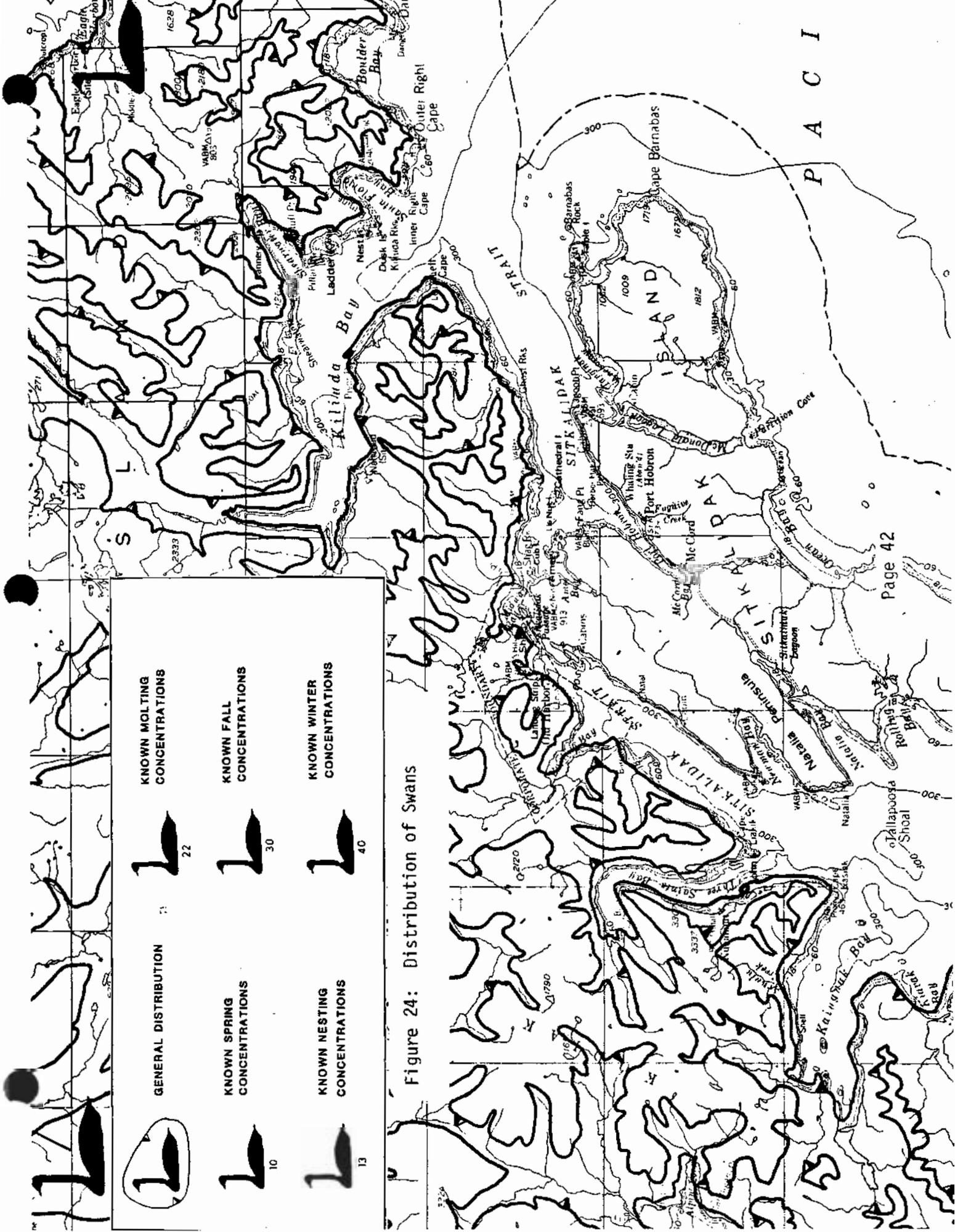


KNOWN JUVENILE REARING AREAS



KNOWN MATING AREAS





GENERAL DISTRIBUTION



KNOWN MOLTING CONCENTRATIONS



KNOWN SPRING CONCENTRATIONS



KNOWN FALL CONCENTRATIONS



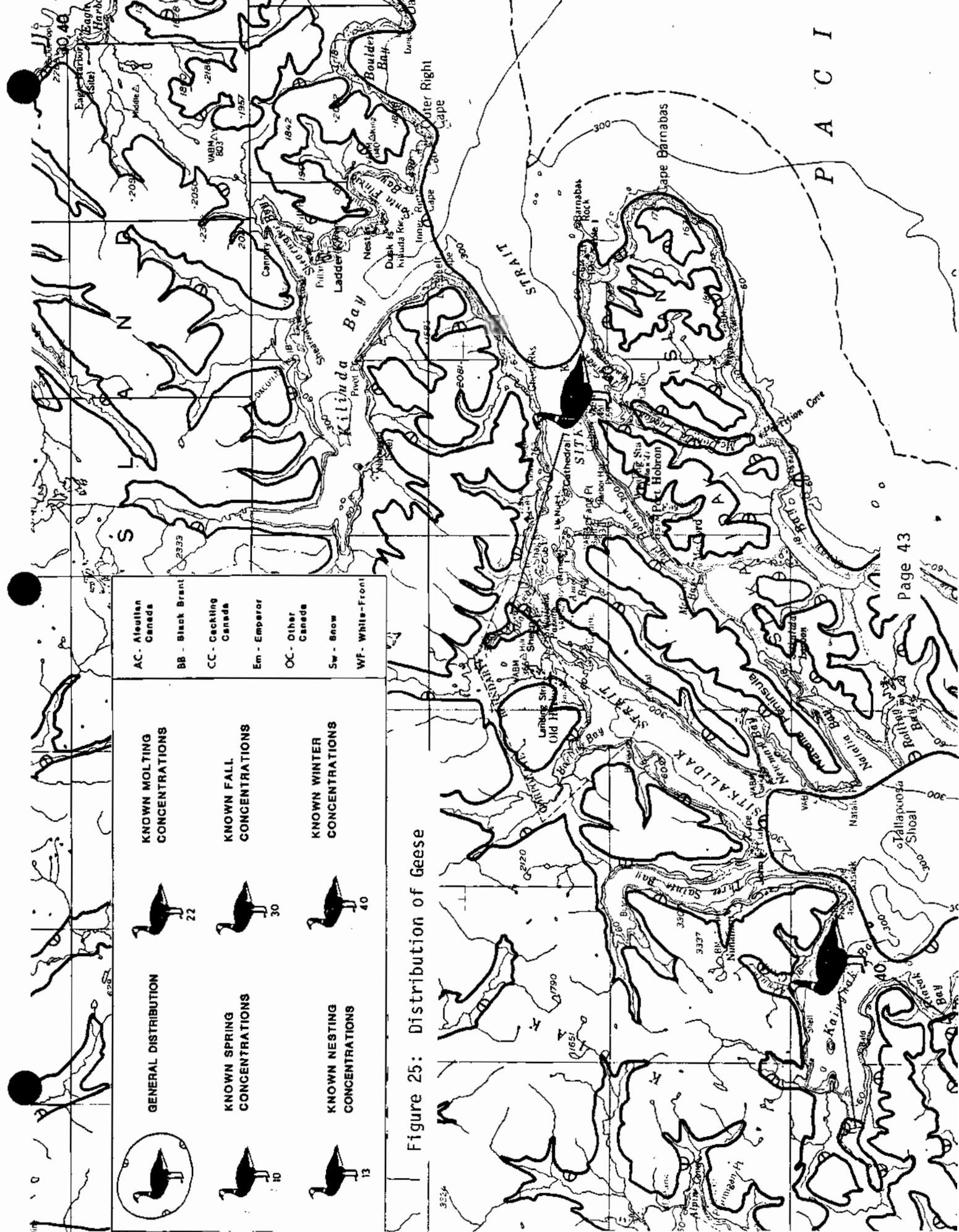
KNOWN NESTING CONCENTRATIONS



KNOWN WINTER CONCENTRATIONS



Figure 24: Distribution of Swans



AC - Aleutian Canada
 BB - Black Brent
 CC - Cackling Canada
 Em - Emperor
 OC - Other Canada
 Sw - Snow
 WF - White-Front

KNOWN MOLTING CONCENTRATIONS

22

KNOWN FALL CONCENTRATIONS

30

KNOWN WINTER CONCENTRATIONS

40

GENERAL DISTRIBUTION



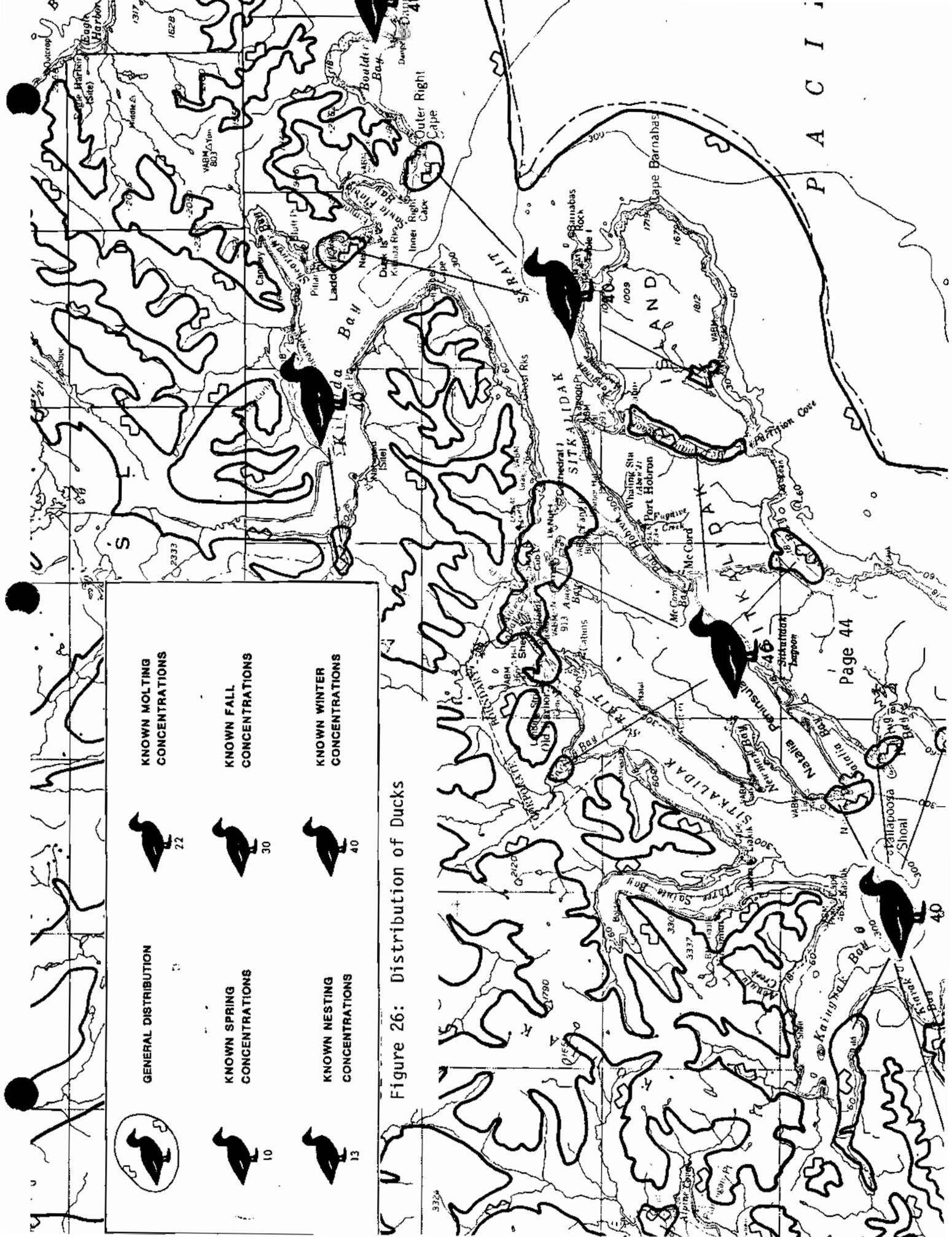
KNOWN SPRING CONCENTRATIONS

10

KNOWN NESTING CONCENTRATIONS

13

Figure 25: Distribution of Geese



KNOWN MOLTING
CONCENTRATIONS



KNOWN FALL
CONCENTRATIONS



KNOWN WINTER
CONCENTRATIONS



GENERAL DISTRIBUTION



KNOWN SPRING
CONCENTRATIONS



KNOWN NESTING
CONCENTRATIONS



Figure 26: Distribution of Ducks

Figure 27: Distribution of Sea Bird Colonies
KNOWN NESTING COLONIES

● INDIVIDUAL COLONY

GROUPS OF COLONIES

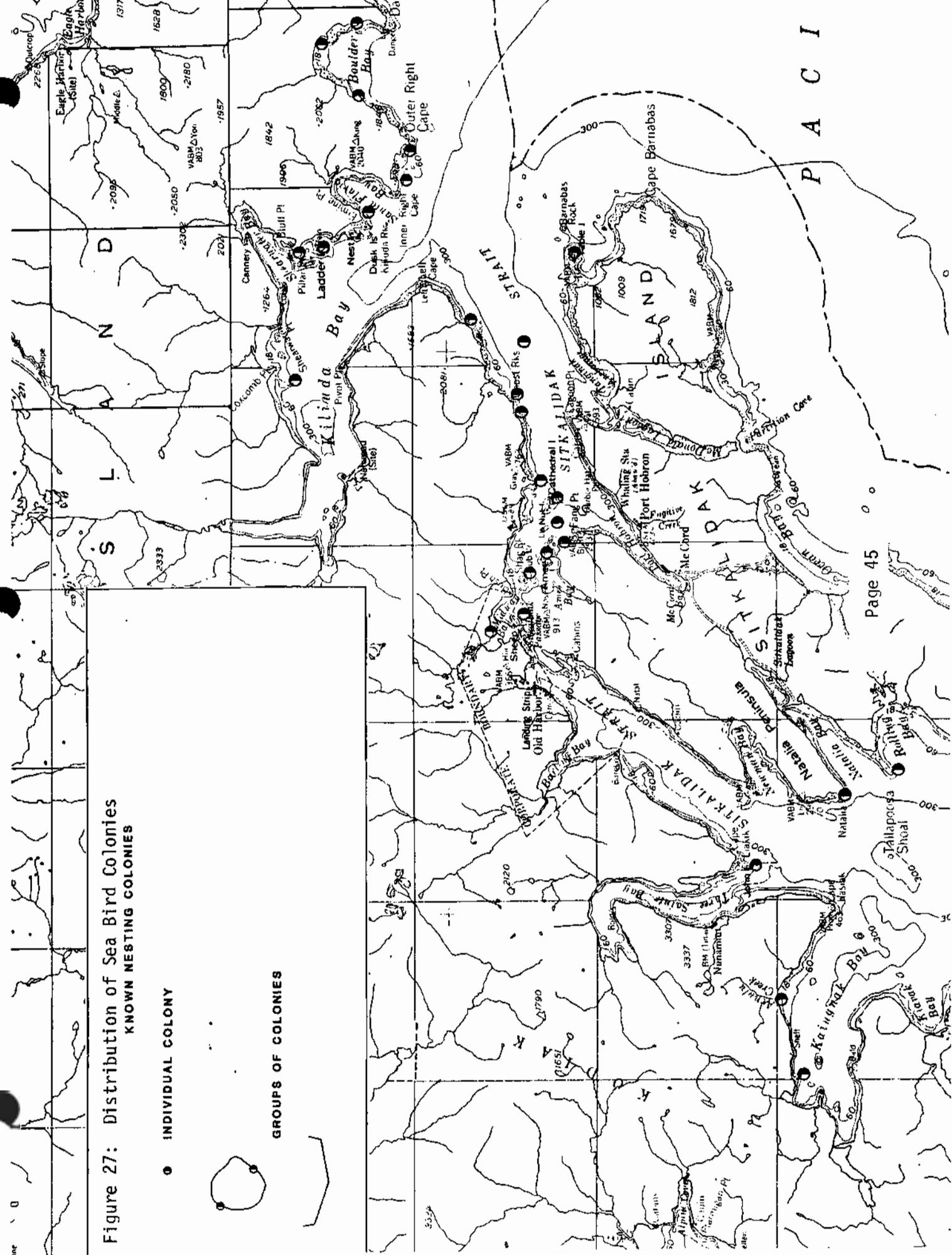
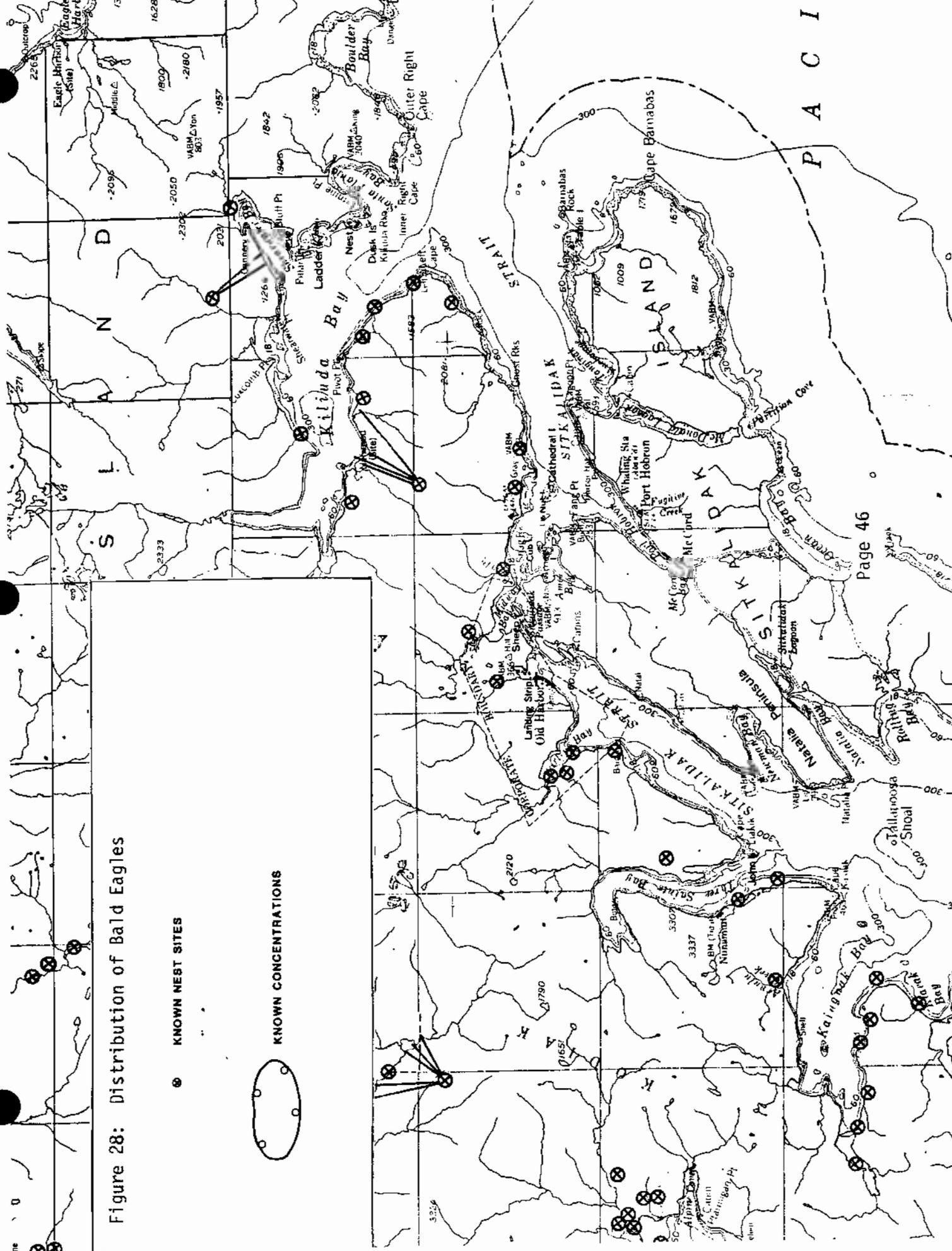
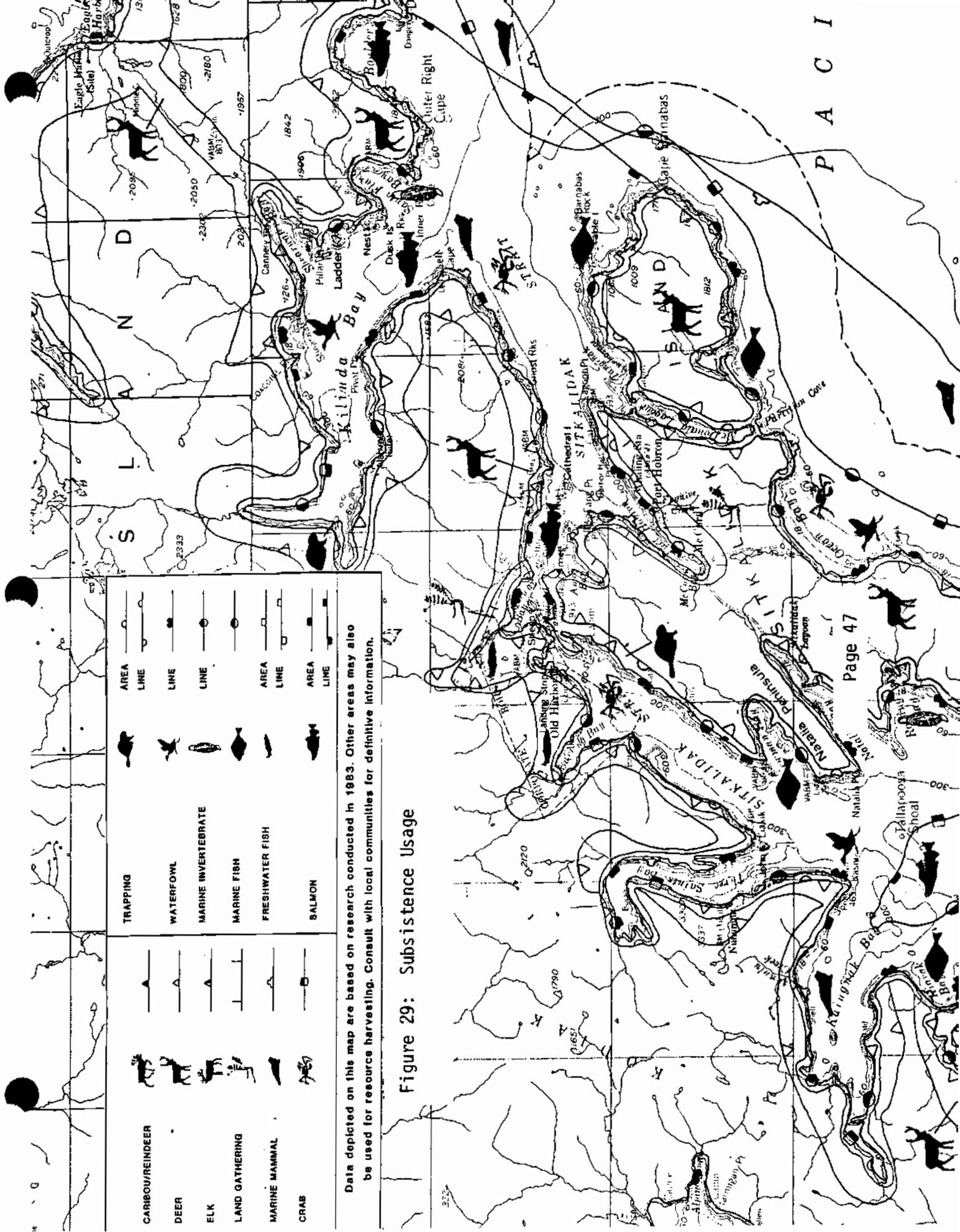


Figure 28: Distribution of Bald Eagles

⊗ KNOWN NEST SITES

○ KNOWN CONCENTRATIONS





CARIBOU/REINDEER		TRAPPING		AREA	
DEER		WATERFOWL		LINE	
ELK		MARINE INVERTEBRATE		LINE	
LAND GATHERING		MARINE FISH		LINE	
MARINE MAMMAL		FRESHWATER FISH		AREA	
CRAB		SALMON		LINE	

Data depicted on this map are based on research conducted in 1983. Other areas may also be used for resource harvesting. Consult with local communities for definitive information.

Figure 29: Subsistence Usage

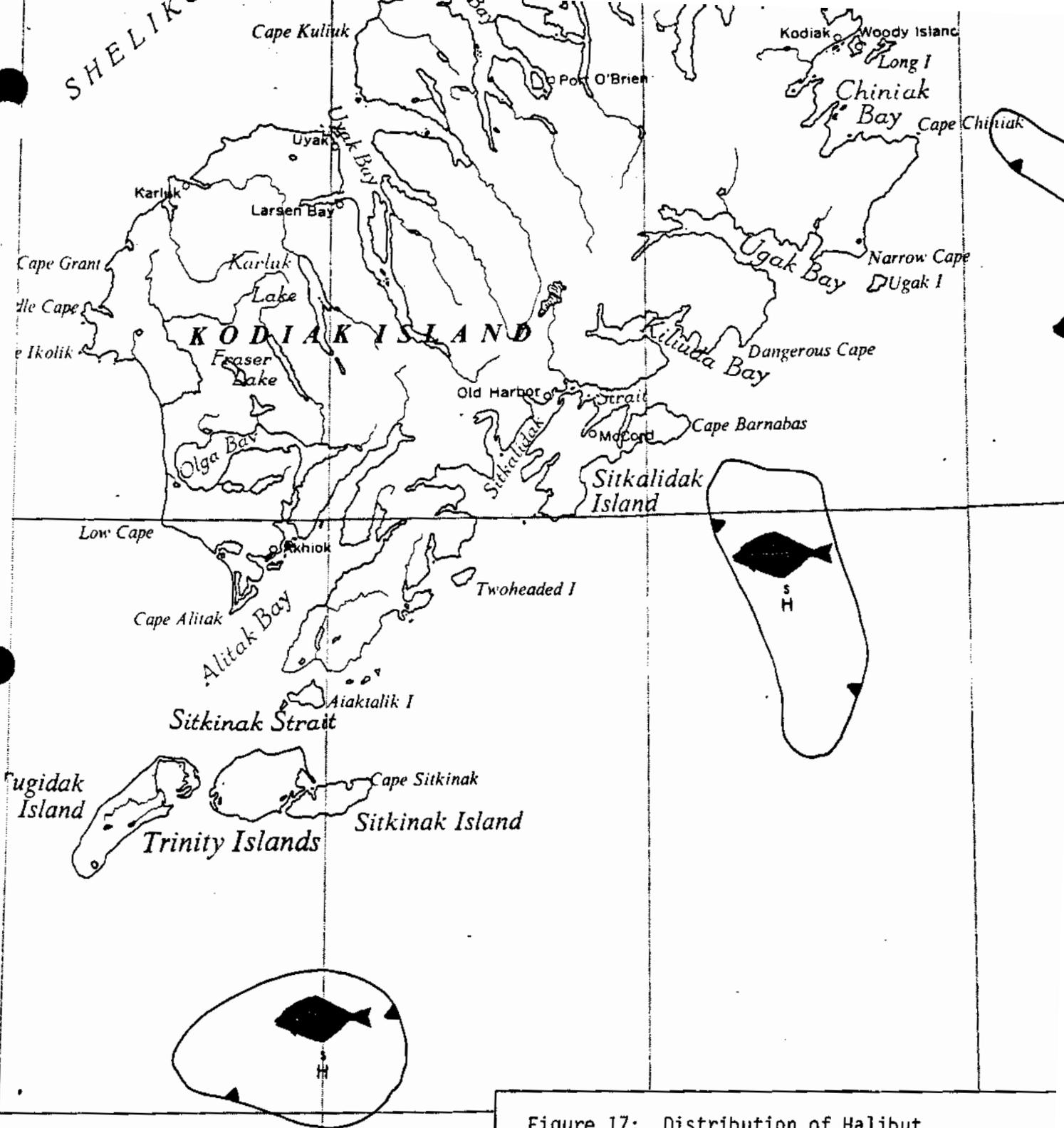


Figure 17: Distribution of Halibut

H-HALIBUT



GENERAL DISTRIBUTION

s-SPAWNING



KNOWN REARING AREAS

59

Vegetation

The vegetation varies significantly throughout the Kodiak Archipelago. The northern islands, including Spruce Island, Afognak, Marmot, Raspberry, and Shuyak, are heavily forested with tall stands of Sitka spruce and coastal western hemlock. In other areas, the steep mountains sustain a thick shrub cover of alder, salmonberry, devil's club, and elderberry at lower and middle elevations. At higher elevations, the mountains exhibit a typical alpine-arctic heath vegetation of mosses, lichens, and dwarf willows. Old Harbor is located in the transition zone between high brush vegetation and alpine tundra. Dominant vegetation types include willow, alder, devil's club, bluejoint and fescue grasses, lupine, Jacobs ladder, ferns, sedges and horsetail.

CULTURAL ENVIRONMENT

Land Use

Land use in Old Harbor is subject to regulations which are adopted by the Kodiak Island Borough. In the 1968 Borough Comprehensive Plan, the village of Old Harbor was only briefly touched on, as the plan's primary focus was on the Kodiak urban area. This plan is intended to focus specifically on the needs and desires of the Old Harbor community by identifying land use issues which may impact the physical development of the community in the next five to ten years.

The Borough regulates land use through zoning; using a multiple district zoning system. The majority of developed lands within the Old Harbor Townsite are currently zoned R-1--Single-Family Residential. This is due to a general rezone of Old Harbor, as well as other villages within the Kodiak Island Borough, that occurred with the passage of Ordinance 77-19-0. There have been some zoning changes in Old Harbor since that time, however, the basic pattern of R-1 zoning still remains.

It is difficult to resolve land use issues when there is little information on which to base a decision. Therefore, this comprehensive plan provides information and a basis for the resolution of land use issues through future zoning changes and other implementation methods. The plan should, therefore, make it easier for the development plans of the community to be realized in the future.

Community Facilities

In 1988, the Old Harbor school enrollment was 74 students. The current staff consists of 7 faculty, 1 administrator, 2 custodial, 1 maintenance, and 1 clerical. In addition, there are one and a half (1.5) teacher's aide positions at the school which are filled by local residents. Occasionally, outside education specialists perform workshops in writing, music, and art in Old Harbor schools. After school athletic activities include volleyball, wrestling and basketball. In some years the students participate in the Native Youth Olympics. In addition, the gymnasium remains open in the evening for community recreational activities. The Kodiak Area Native Association (KANA) operates a preschool in Old Harbor with funding from the federal Johnson O'Malley Program.

A new school in Old Harbor was under construction in 1988 and 1989 as a result of a construction program of the Kodiak Island Borough. The 1.7 million dollars budgeted for the project was obtained through a bond issue passed by Borough voters in 1986. The completed structure will contain classrooms for both the elementary and high school grades. Eventually, plans call for the connection of the new school to an existing gymnasium and shop building. The Borough facilities department estimates the new school will contain approximately 7,500 square feet and that it will be completed in September of 1989. It is estimated by the Kodiak Island Borough School District that this new school will adequately serve the needs of Old Harbor for the life of the building.

Fuel is delivered 6 to 8 times a year by the Petro Marine Company from their facility in Anchorage. Petro Marine operates what is referred to as a "peddling run" about once every three weeks. Prior to departure, Old Harbor and other Kodiak communities are

notified by FAX or by phone that a "run" has been scheduled. The communities have a certain amount of time within which they may respond with a fuel order.

The price of fuel is not based on relative distance from the Petro Marine terminal facility. Pricing is currently determined by the amount of fuel purchased and the amount of time spent in port to off-load the fuel in a particular community. The price varies slightly from community to community and from order to order, based upon these variables. Petro Marine primarily delivers diesel fuel, stove oil, and one grade of gasoline.

Fuel distribution services in Old Harbor are carried out by an independent jobber. Bulk fuel is stored in four 15,000 gallon storage tanks located near the southern corner of old town near the shore. There is another 60,000 gallon fuel tank located in a diked area above and behind the Russian Orthodox Church at the southwest end of old town. This tank is currently not set up for bulk fuel deliveries from the fuel barge. It may be used for reserve fuel storage however.

The city owned and maintained sanitary landfill is located near the sewage lagoon northeast of the lagoon. The original landfill located near the lagoon on the old town side, was constructed in 1977 by the Kodiak Island Borough with Federal Housing and Urban Development Community Block Grant funds. This site became inadequate and the residents relocated it to a site near the sewage lagoon area. Collection is presently performed free of charge by the city. However, the council is considering a collection fee of \$5.00 per month for all customers. Collections occur on an intermittent schedule.

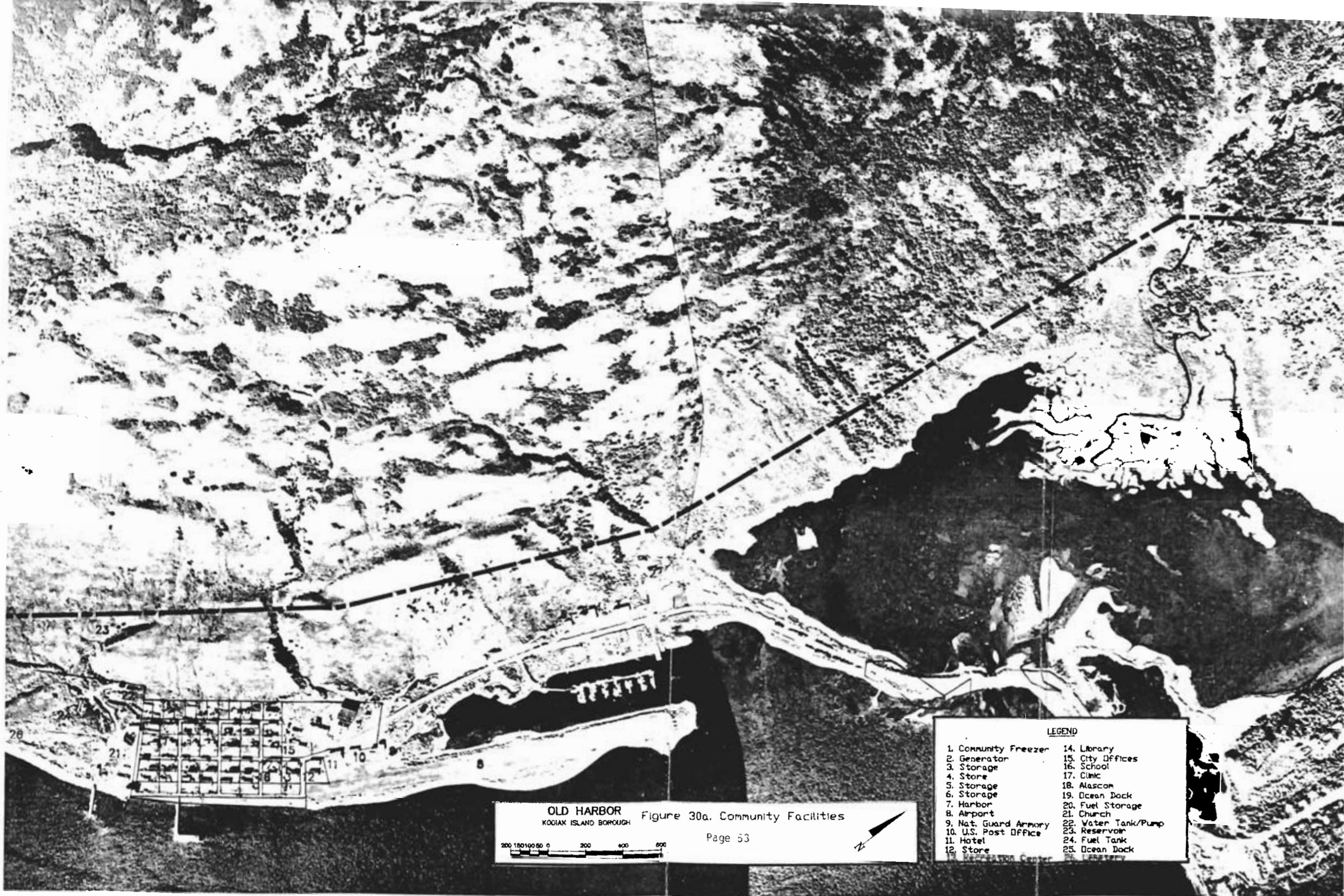
Garbage which is burnable is currently disposed of at a place near the beach. Non-combustible garbage is presently being dumped in a designated area near the west side of the sewer lagoon. It is apparent that the community will need to consider moving the

landfill to a new location in the immediate future. This is because the present site is near capacity.

The Corps of Engineers and the State of Alaska Department of Transportation and Public Facilities (DOT/PF) have constructed a small boat harbor which is currently large enough to handle about two dozen boats. There is concern by the Old Harbor residents that the harbor basin needs to be enlarged and re-dredged. When contacted, both agencies said that there are no current plans to dredge or enlarge the harbor. The harbor was originally constructed by the Corps of Engineers in 1967. In 1982, DOT/PF added a 60 by 300 foot dock extension to the existing facility.

Other facilities in Old Harbor consist of the city offices, a small medical clinic, a store, a library, a cold storage facility, a cemetery, fire station, city shop building, and activity center.

Mail and newspapers are delivered Monday through Friday by Hermens/Mark Air Express and Peninsula Airways. Kodiak radio stations KVOK/KJJZ AM and FM and KMXT FM are received in Old Harbor.



OLD HARBOR
 KODIAK ISLAND BOROUGH
 Figure 30a. Community Facilities
 Page 53

LEGEND

1. Community Freezer	14. Library
2. Generator	15. City Offices
3. Storage	16. School
4. Store	17. Clinic
5. Storage	18. Alascom
6. Storage	19. Ocean Dock
7. Harbor	20. Fuel Storage
8. Airport	21. Church
9. Nat. Guard Armory	22. Water Tank/Pump
10. U.S. Post Office	23. Reservoir
11. Hotel	24. Fuel Tank
12. Store	25. Ocean Dock





OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 30b. Community Facilities

LEGEND

- 1. Water Tank
- 2. Pump House
- 3. Water Well
- 4. Sewage Lagoon
- 5. Landfill



Transportation

Old Harbor is regularly served by scheduled commercial airline flights from the City of Kodiak. In addition, the village is also served by barges and private marine vessels which regularly call at Old Harbor.

Old Harbor is accessible only by air and water. There are no roads connecting the town with the other villages on Kodiak Island. There are, however, gravel roads within the town of Old Harbor. The roads, built by the Bureau of Indian Affairs, were not constructed to state standards. The state, therefore, takes no responsibility for them and maintenance is left up to the city. Little funding has been made available for road maintenance, so the city government does the best it can to maintain the roads. In the past, all terrain vehicles were one of the main modes of transportation in Old Harbor. Now, however, there appear to be more cars operated in Old Harbor than ATV's.

Old Harbor is regularly served by both Hermens/Mark Air Express and Peninsula Airways. Other air charter companies are also available for flights to and from the City of Kodiak, where connections can be made with other cities. Round trip airfares between Old Harbor and the City of Kodiak were \$90.00 in 1989, however this fare only applies to regularly scheduled service. At the same time, the cost of air freight ranged from \$.20 to \$.25 per pound. Both Hermens Mark Air Express and Peninsula Airways provide overlapping service 7 days a week.

There is a 2,000-foot airstrip located close to the old town section of Old Harbor which also acts as a breakwater for the Small Boat Harbor. The village has requested that the State of Alaska move the airstrip to property acquired through ANCSA behind new town, on the other side of the lagoon. This would serve several purposes, one, to allow the

airfield to be lengthened widened and otherwise improved to handle larger aircraft, and, two to provide more usable area for economic development near the shore of Sitkalidak Strait and the small boat harbor. In addition, the current location of the airstrip is not ideally located for all wind conditions.

The State of Alaska Department of Transportation and Public Facilities has prepared plans and specifications for the construction of a new airport at Old Harbor. These plans propose that a new site be developed near new town, on the peninsula between Sitkalidak Strait and Midway Bay. At the present time all that is required for this project to go forward is funding. The project is proposed to be constructed using federal Airport Improvement Program (AIP) funds administered by DOT/PF. Funding is not expected to be available before the early 1990's.

A large cargo dock is located near the village's fuel storage tanks. The condition of this facility has reportedly been deteriorating due to lack of regular maintenance and its usefulness for tie up of larger vessels is now being called into question. However, this facility is regularly used to load and unload fishing gear and other large freight items that cannot be moved through the small boat harbor. Another smaller dock to the southwest is used for gear storage as it appears to be unserviceable for other uses.

Utilities

Water

The Old Harbor water system was originally constructed by the U.S. Public Health Service during the reconstruction of Old Harbor in 1964 and is currently owned and maintained by the city. This system was replaced and expanded in 1977 to serve the

new town area developed on the north side of the lagoon. Two surface water sources supply water to Old Harbor. The water system consists of a north and south grid connected by a 6 inch main to provide a balanced system. The old town system obtains water from a dammed creek. The water is treated with chlorine and fluoride and stored in a 100,000 gallon tank. The new town system receives its water from an infiltration gallery. The water is pumped, treated, and stored in a 120,000 gallon tank. Both drainage areas are relatively small. The water system in new town is subject to freezing in cold temperatures. In December 1980, the pipes in all the homes connected to the system froze and service was discontinued for 6 and one half weeks. The distribution system is constructed of 3-inch plastic water mains. Eleven fire hydrants scattered throughout the entire community are connected to the water system.

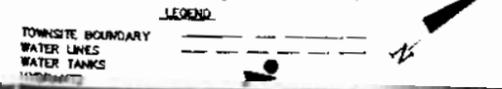
Sewer

The U.S. Public Health Service installed two sewer systems, one each in the old town and new town parts of Old Harbor, which are now owned and maintained by the city. The old town system includes a collection system, septic tank and outfall line. This system which was originally constructed in 1964, provides service to the old town portion of the community and outfalls into Sitkalidak Strait. The sewer system is constructed of 8 inch ductive iron sewer mains, all of which discharge into two 10,000 gallon septic tanks near the beach. The effluent from these tanks are discharged into Sitkalidak Strait below lower tide level. The sewer system was rehabilitated during 1985 and a new outfall line was constructed.

The new town system consists of a collection system, septic tank and sewage lagoon which was constructed in 1977. There is a two cell sewage treatment lagoon however, half of it has since been converted to a sanitary landfill, which is rapidly reaching

capacity. This system provides service to the new town portion of Old Harbor. All housing is hooked into one of these two systems. Although the systems are adequate for the existing community, it is questionable whether these systems would be adequate to support increased use by a shore based fishing processor or other basic industry.

OLD HARBOR Figure 31a. Water System Map
KODIAK ISLAND BOROUGH





OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 31b. Water System Map

LEGEND

- TOWNSITE BOUNDARY
- WATER LINES
- WATER TANKS
- HYDRANTS

Scale: 0, 200, 400, 600

North arrow pointing up.



OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 32a. Sewer System Map

LEGEND

200 180 100 50 0 200 400 600

TOWNSITE BOUNDARY
SEWER LINE
MANHOLE
SEPTIC TANK

▲



OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 32b. Sewer System Map

LEGEND

SEWER LINE
SEWER LINE
TOWNSHIP BOUNDARY
TOWNSHIP BOUNDARY



Electricity

The electrical distribution system in Old Harbor is owned by the Alaska Village Electric Cooperative (AVEC). AVEC currently provides power to Old Harbor with two Caterpillar 3306 generator units rated at 170 Kilowatts prime. (170 Kilowatts prime means the units are rated to produce 170 Kilowatts of continuous power with no decrease in the operating life of the units.) One unit is in operation at any given time while the other unit is maintained in standby status for emergency use in case the other unit fails.

AVEC has plans to install an additional unit in the summer of 1989, a Cummins LTA10, which is rated at 125 Kw. prime. This unit is expected to be more fuel efficient than the Caterpillar 3306 units and would be the primary power source for the community during the summer months when power demands are traditionally lower. AVEC records indicate that peak demands for power are usually about 125 Kw in the winter and 80 Kw in the summer. It is expected that the new Cummins LTA10 unit will save 10 - 15 percent of the annual fuel requirement during the 7 months of the year that it is expected to be in operation. Due to its efficiency this would amount to a total fuel savings of about 3500 gallons annually over the Caterpillar 3306 unit.

Other plans that AVEC proposed to implement in early to mid 1989 include the improved sectionalization of the town. Currently, the old town and new town sections are all located on one grid. Work on any part of the system requires turning off the power which means that the whole town must go without power when the system needs maintenance. In addition to the obvious inconvenience the community experiences, this also makes it harder to do regular maintenance. As a result, AVEC is reluctant to make any changes until it is absolutely necessary to do so. Plans call for the installation of at

least two switches so that different sections of town can be isolated when repairs and maintenance are required on the system.

Another change that is planned for some time in 1990 is the change of the electrical system in old town from the current 480 volt system to a more standard 7200 volt system. This would not change the actual voltage of household current, however it would require the upgrade of most transformers and other electrical distribution hardware in old town. New conductor would be strung on the existing poles. The ultimate goal of these improvements is to reduce the voltage drop that usually occurs as a result of power transmission and to provide more stable power to the inhabitants of old town. Power within the residential community sections is via an overhead transmission line. However, the northern and southern portions of the community are tied together with an underground line in the road right-of-way. Present (1988/1989) electricity costs per kilowatt hour are \$.325 for the first 1500 kwh with a \$.0301 fuel surcharge tax.

In 1988, Old Harbor requested to be included in the Terror Lake Power grid located 38 miles away, in order to enjoy the relatively cheaper power currently available to residents of Kodiak, Chiniak and Port Lions. Preliminary estimates by the Kodiak Electric Association, have not shown this to be a feasible option, at least for the foreseeable future. Other alternative energy sources that have been considered by the community include a small head hydropower plant on an unnamed creek, one mile west of Old Harbor, and a horizontal axis wind induction generator.

Private Utilities

Telephone service in Old Harbor is provided by Alascom, Inc., via an earth station for satellite communication. This facility also provides for reception of the Alaska Satellite

Television Project. A translator is also in place for reception of KMXT-FM, a public radio station based in Kodiak. Reception of KVOK/KJJZ AM and FM is also possible. The local telephone system is maintained by Telephone Utilities of the Northland and is available to all residents of Old Harbor. A local cable television service was introduced in 1988 and is presently in operation.

Population

The present population of Old Harbor is 380, as certified by the State of Alaska Department of Community and Regional Affairs for use in determining State Revenue Sharing and Municipal Assistance entitlements.

Old Harbor's population has been increasing according to the decennial census conducted by the U.S. Bureau of Census. From an initial level of 54 people in 1920, the population had grown to 340 persons living in Old Harbor in 1980. It is estimated that during the summer there is an increase of 50 to 100 people in Old Harbor who are attracted by jobs in the commercial fishing industry.

Figures 33 and 34 show population data from both the U.S. Census and the Kodiak Island Borough. In addition, these figures show the expected growth of the community based on a straight line projection of the data from each of these sources.

It is interesting to note that even though the data sources are entirely different and cover widely different time periods, both trends indicate a population of about 430 people in Old Harbor by the year 2000. The Borough trend indicates a population of 432 and the U.S. Census trend indicates a population figure of 435. It should be noted that these

figures are only estimates and there are many other factors that will determine how much the community of Old Harbor will grow during the next ten (10) years.

OLD HARBOR POPULATION PROJECTION

Source: U.S. BUREAU OF CENSUS, 1980

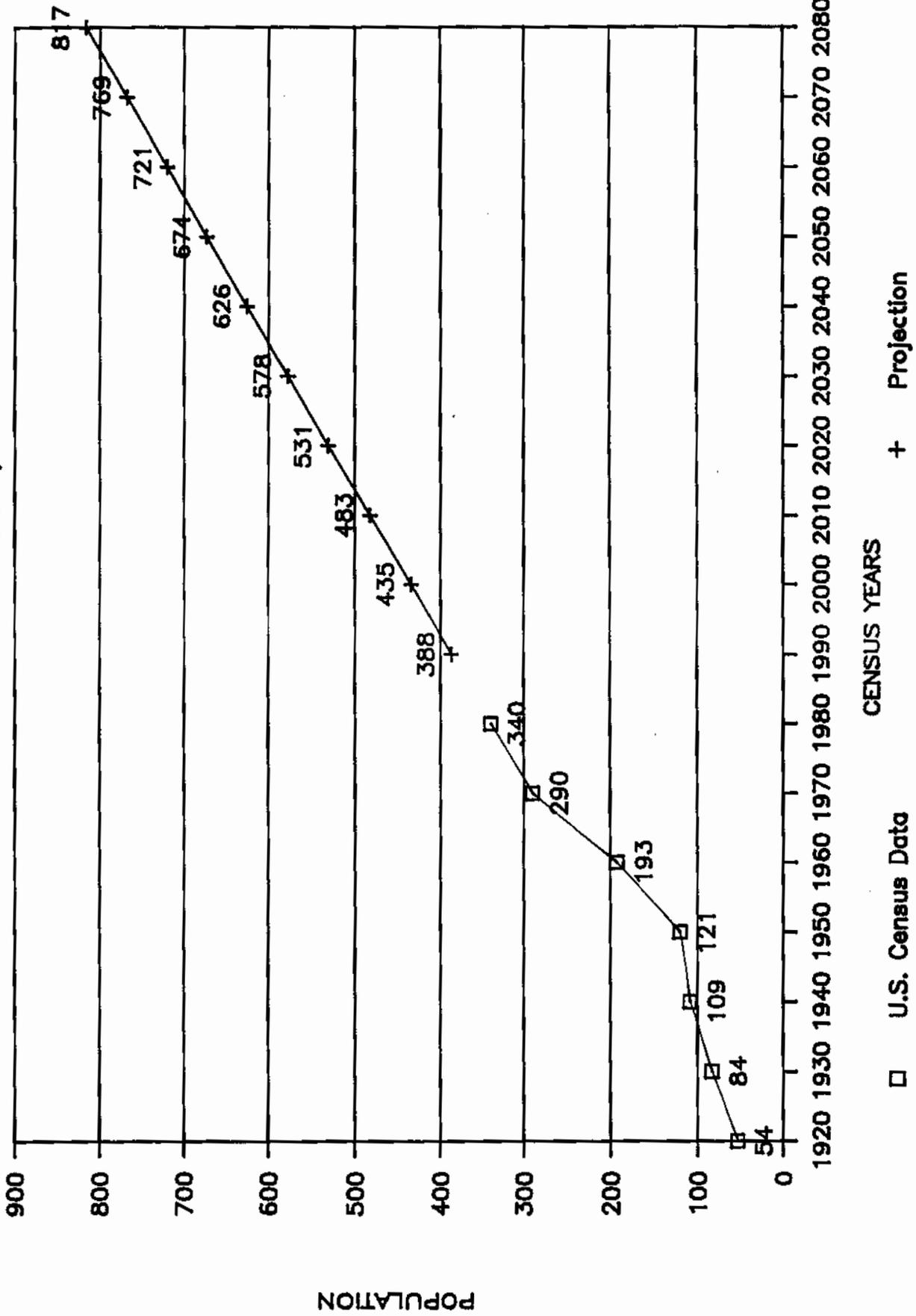


Figure 33 - Page 67

OLD HARBOR POPULATION PROJECTION

Source: KODIAK ISLAND BOROUGH, 1988

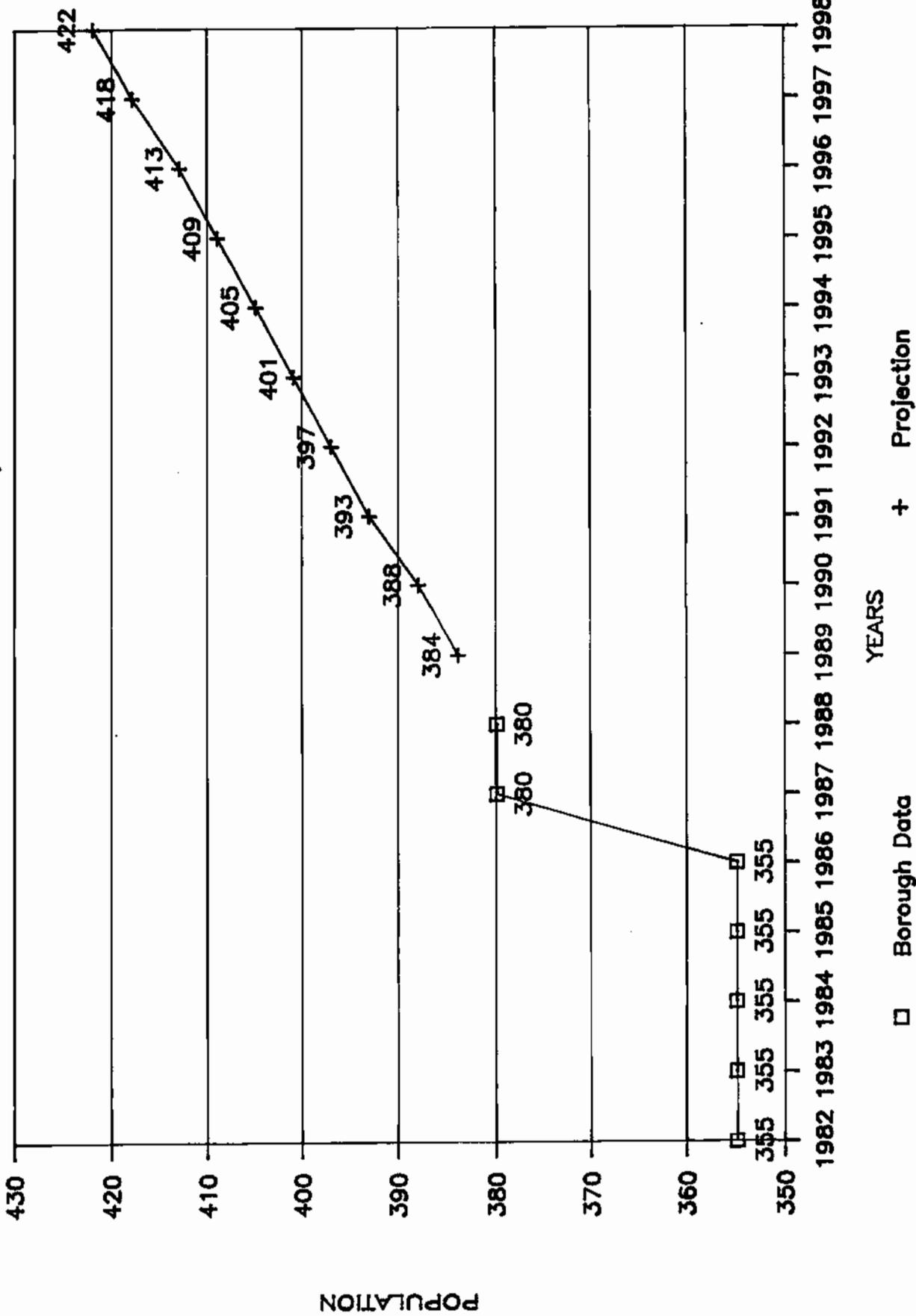


Figure 34 - Page 68

GOALS AND OBJECTIVES

Introduction

The following goals and objectives represent the future course of the City of Old Harbor as indicated by its residents. They were developed in close consultation with and represent the priorities of local residents and elected officials. Goals are statements of desired results while objectives provide the means and methods of achieving desired goals. These goals and objectives provide the basis for development of the comprehensive plan and capital improvement project priorities list.

The goals and objectives have been categorized as follows:

Economic
Transportation
Housing
Land Use
Environment
Recreation

Economic Goals

Goal: Development of shore-based fish processing facilities in Old Harbor.

Objective 1: Work with domestic and foreign seafood processors in order to determine the feasibility of locating facilities in Old Harbor.

Objective 2: Utilize community resources to initiate and/or operate a local processing facility if it is determined to be feasible.

Objective 3: Construct the necessary infrastructure, i.e. water, sewer, electrical and solid waste utilities to support development of processing facilities.

Objective 4: Identify and obtain suitable land along shoreline for development of fish processing facilities.

Objective 5: Rezone lands identified for industrial development potential to the appropriate zoning district as required by Borough Code.

Goal: Enhance local fisheries by restocking nearby streams which have the potential to support salmon runs large enough for commercial harvesting.

Objective 1: Work with state government and other entities to develop plans for commercial fisheries enhancement.

Objective 2: Provide community support for implementation of plans for fishery enhancement.

Objective 3: Work with state government to develop appropriate regulations for the optimal management of enhanced fisheries.

Goal: Development of aquaculture facilities in Old Harbor.

Objective 1: Work with state government and other entities to acquire the technology and/or expertise to operate an aquaculture facility.

Objective 2: Work with Old Harbor Native Corporation and/or other interested investors to obtain needed startup funding.

Objective 3: Train local people in skill areas required for the operation of aquaculture facilities.

Goal: Provide year-round employment opportunities for the residents of Old Harbor.

Objective 1: Work to broaden the economic base of Old Harbor by developing service industries and jobs not related to commercial fishing.

Objective 2: Develop more support services for the maintenance of the commercial fishing fleet such as boat repair, gear repair, etc.

Objective 3: Train local people in skill areas that would be required for projected or desirable industries.

Transportation Goals

Goal: Improve air traffic access to and from Old Harbor via a new airport capable of handling up to a C-130 cargo plane.

Objective 1: Work with the Alaska Department of Transportation and Public Facilities to develop the new, larger airport facility at the location already identified near new town.

Objective 2: Assist the state in the construction of new airport facilities by providing labor and equipment at cost to facilitate development efforts.

Objective 3: Work with the Alaska Department of Transportation and Public Facilities to develop an Airport Master Plan indicating those areas where support facilities and airport related land uses can be expected to locate.

Goal: Provide a well-maintained and viable road system in Old Harbor.

Objective 1: Establish the necessary agreements and secure the necessary support from the Bureau of Indian Affairs and the State of Alaska to initiate and sustain a comprehensive maintenance program for local roads.

Objective 2: Establish a road to the new airport site as soon as possible to permit concurrent development of surrounding village lands.

Goal: Provide additional or improved docking facilities to handle marine traffic in Old Harbor.

Objective 1: Secure the necessary funding for the development of a new dock facility so that transportation costs to the community will be as low as possible.

Objective 2: Secure the necessary funding for the rehabilitation of existing dock facilities to permit concurrent use of dock facilities by commercial fishermen and community shipping needs.

Objective 3: Improve dock facilities by providing small dock cranes to allow for off-loading of fish or small boat repairs.

Housing Goal

Goal: Encourage the development of new housing, consistent with the natural growth and development of the community.

Objective 1: Discourage housing and other structures from locating in known hazard areas.

Objective 2: Continue a housing maintenance program through the Kodiak Island Housing Authority with the cooperation and support of the Kodiak Island Borough and the State of Alaska, that will provide for the upgrading and maintenance of older housing units and the continual maintenance of all housing units in the community.

Land Use Goal

- Goal:** Maintain the general pattern of existing land uses while providing suitable land use areas for future community growth.
- Objective 1:** Encourage the Kodiak Island Borough to establish and adopt a mixed use zoning district that will allow flexibility in locating new land uses supported by the community.
- Objective 2:** Encourage the Kodiak Island Borough to give preference to locally developed land use plans as a guide for future land use decisions.
- Objective 3:** Designate and provide for additional industrial growth areas for development of the commercial fish processing, and aquaculture industries.
- Objective 4:** Direct residential expansion towards higher elevations to the north (in new town) of the existing residential areas (in old town) to minimize the potential for damage from catastrophic events.
- Objective 5:** Direct institutional and public land uses towards higher elevations to minimize the potential for damage and casualties from earthquakes, tsunami, and landslides.
- Objective 6:** Maintain a centrally located commercial and business enterprise core district that allows residential use in old town.

Objective 7: Protect historically, archaeologically or culturally significant structures or lands.

Objective 8: Give preference to land-based and shoreside economic development over floating or water based operations.

Objective 9: Encourage expanded marine services and facilities to locate on lands near the small boat harbor or the airport runway area after the airport has been relocated.

Objective 10: Encourage industrial and commercial development to locate near planned and existing harbor and airport facilities.

Environmental Goal

Goal: Assure the natural environment is protected and enhanced by eliminating existing sources of environmental degradation and prohibiting future actions by private and public entities that might adversely affect the environmental quality of Old Harbor and its surrounding area.

Objective 1: Establish a new and properly located and operated sanitary landfill site.

Objective 2: Encourage and promote development through local and Borough ordinances that preserve the natural land forms, existing

vegetation, archaeological resources, subsistence resources, and other environmental resources of the Old Harbor area.

Objective 3: Preserve adequate open space and public access along the shoreline.

Objective 4: Provide adequate erosion-control measures for the shoreline within the community.

Objective 5: Protect the existing watershed area of the community.

Recreational Goal

Goal: Provide a wide range of recreational opportunities for all residents.

Objective 1: Establish and maintain an ongoing parks and recreation program in cooperation with the Kodiak Island Borough School District.

Objective 2: Ensure that future residential development includes the provision of adequate recreation areas and neighborhood parks where necessary.

Objective 3: Encourage and promote the multiple use of public buildings for recreational and other community activities.

Objective 4:

Encourage non-buildable sites and lots to be designated as natural parks.

COMPREHENSIVE PLAN

Introduction

The following section presents the future land use needs of the community based on the existing situation in Old Harbor and the goals and objectives for future development of the community and its environs.

Land Use Growth Requirements

Commercial and Industrial

Commercial activity in Old Harbor centers around two main areas, in old town, near the city offices and the post office, and also near the small boat harbor. Existing industrial land uses include equipment storage buildings, community generators, bulk fuel storage and the airport. Several proposed activities will increase the need for additional industrial land in the future. These include development of fish processing facilities, aquaculture facilities, a new bulk fuel storage site and airport support facilities.

Residential

Old Harbor shows a slow but stable rate of growth according to trends established earlier in this report. While Old Harbor may not need to construct many new dwellings in the future, it is certain that a number of the existing dwellings in old town will have to be replaced as they continue to deteriorate and become unserviceable. As this happens new land will need to be identified in the new town area for residential expansion of the two existing subdivisions.

Community Buildings

The trend of residential movement from old town to new town will at some point require the relocation of community buildings. The new school building and the relatively new city offices will probably not be moved for some time. However, the post office, will probably be moved to the new airport after the airport's completion in the early 1990's. The clinic also is planned to be relocated to new town and the community is only awaiting the necessary funding to initiate the project. The City of Old Harbor is interested in a land trade with the Russian Orthodox Church which will provide a new church site in new town by the proposed airport. In return the City hopes to receive church owned land located along the waterfront in old town that can be used for industrial development. As previously identified, all community and institutional buildings should be encouraged to develop or redevelop in new town with its areas of higher elevation.

Utilities

Old Harbor currently does not charge for utilities such as water, sewer and garbage service. Consequently, when the system requires repairs there are no dedicated funds to draw on for the repairs. This results in unnecessary delays in restoring service as funds are shifted from other projects or requested from outside agencies. In order to provide adequate service to the community and to support the expansion of commercial and industrial land uses, some means of revenue generation must be considered either by user fees or local taxes to adequately fund and maintain the community's water, sewer, and solid waste facilities.

A new sanitary landfill must be developed in the near future. Old Harbor has been disposing of its solid waste by open burning and other means for some time now. In the short term, the city has a plan to use some old fuel tanks as large open burn pits, so that at least the residue and non-combustibles will be contained for later disposal. However, this does not change the fact that the community must obtain a new sanitary landfill site before current practices become a hazard to the community.

School

The Old Harbor community school provides instructional facilities for children in Kindergarten through the 12th grade. Construction of a new school facility was begun late in 1988, and it is expected that this new facility contains adequate classroom and activity space for current and projected needs through the life of the structure.

Roads

Local roads are considered to be inadequate by most Old Harbor residents. Improvements to the access road connecting old town and new town are needed, to improve safe traffic flow and also to protect against constant erosion by wind and wave action. New roads will be needed to access areas near the new airport site and a new sanitary landfill if it is sited off the existing road network. Old Harbor roads were not originally constructed to State standards. It would be a great improvement if the old town - new town road could be reconstructed to State standards. It is the most frequently travelled road in town. In addition, it provides a critical link between residential areas and all the commercial, transportation, and government facilities in town.



OLD HARBOR
KODIAK ISLAND BOROUGH

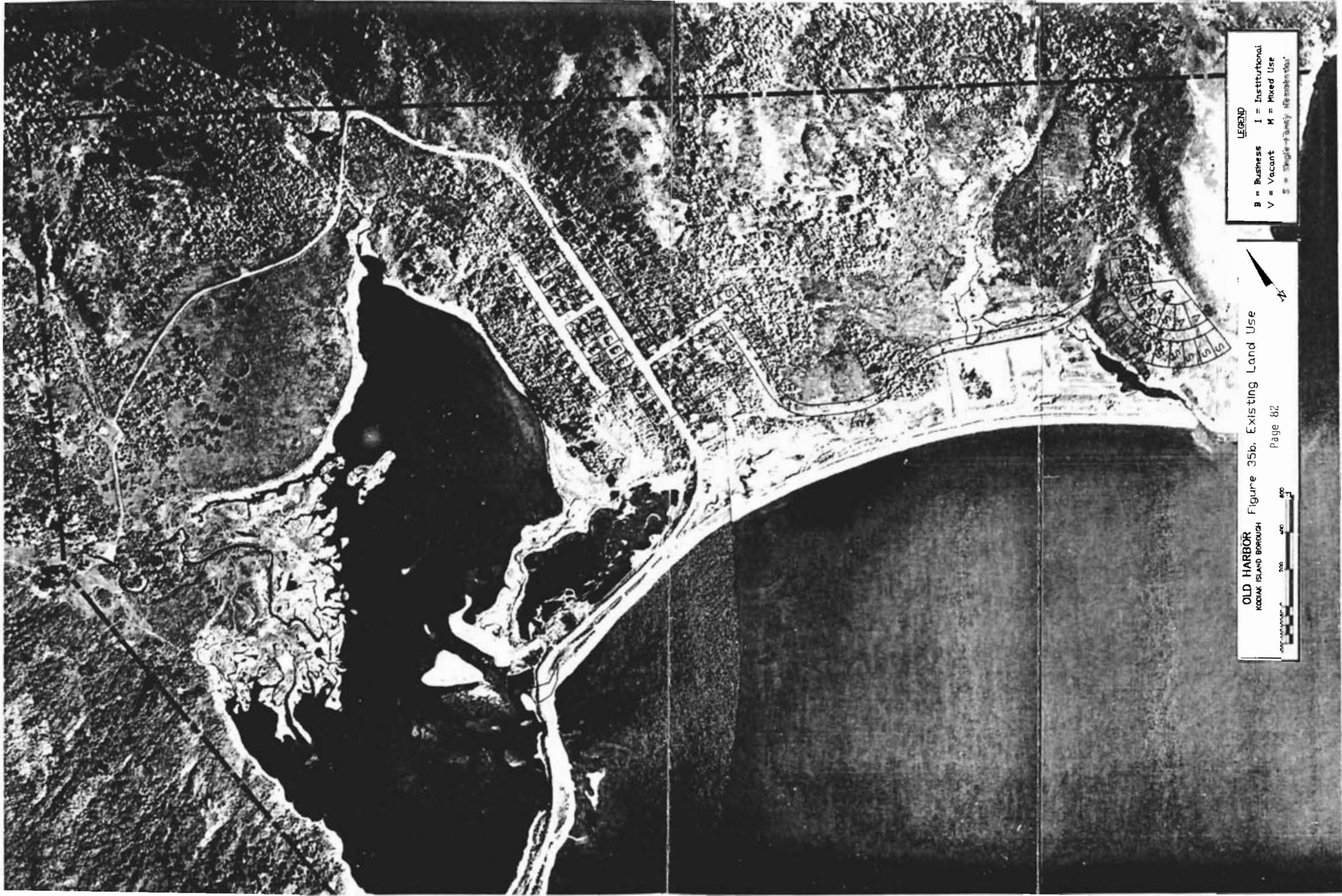
Figure 35a. Existing Land Use

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LEGEND

B = Business I = Institutional
V = Vacant M = Mixed Use
S = Single-Family Residential

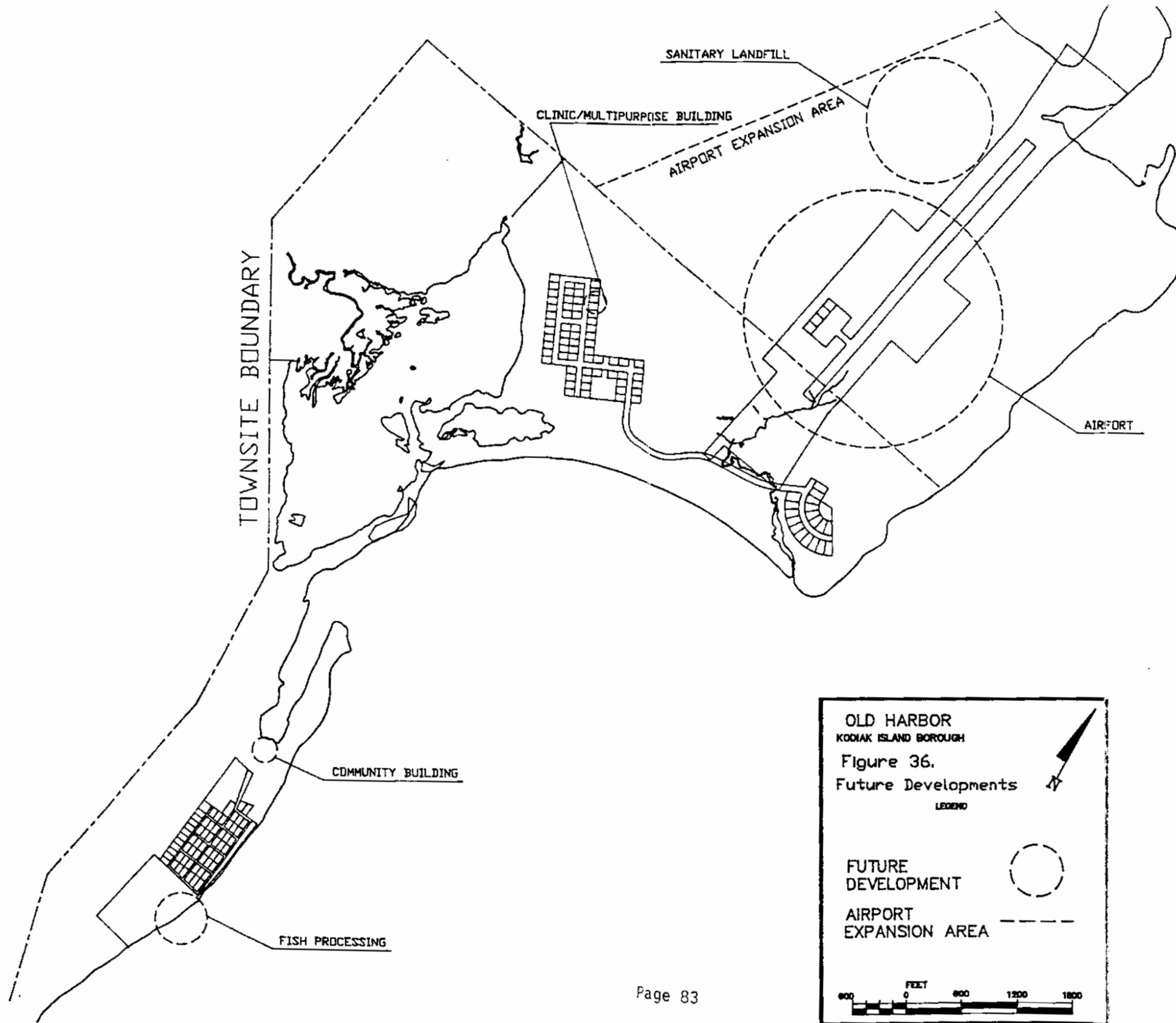


OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 35b. Existing Land Use

LEGEND

- B = Business
- I = Institutional
- V = Vacant
- M = Mixed Use
- S = Single-Family Residential



Land Use Element

Introduction

Experience with development projects in all Kodiak Island villages has shown that the "urban oriented" zoning code regulations of the Kodiak Island Borough do not work well or meet the needs of remote communities. Compounding this problem is the fact that all areas within the corporate (municipal) boundaries of Kodiak Island villages were originally zoned exclusively for "urban" single-family residential development. This zoning was established in 1977, although some properties in Old Harbor have since been rezoned. Commercial, industrial and public land uses are found in almost all communities. In the case of rural Alaskan villages, these land uses are often located in close proximity to one another, on the same parcel of land, or within a single structure.

Obviously a community's zoning regulations should reflect the types of land use present in the area and those likely to be established in the future. In Old Harbor, typical land uses include residential, commercial, industrial, public use, and undeveloped natural areas. As in other rural Alaska communities, in Old Harbor these land uses are generally located in compact land areas in close proximity to one another. The result is mixed use development which must function effectively as a whole, rather than as a number of distinctly separate zoning districts.

Discussions with Old Harbor residents, Kodiak Island Borough staff and review of other village planning documents indicates the need to establish and maintain land use regulatory mechanisms that allow for the greatest flexibility in determining future land use development patterns in villages.

The land use plan for Old Harbor is intended to serve the following purposes:

To establish a plan to guide future growth and development that reflects the needs and desires of local residents.

To establish a plan for all areas within the municipal boundaries of the community that takes precedence over other plans developed for this area, including those developed by the Kodiak National Wildlife Refuge.

To establish a plan that will be consistent with the provisions of the Alaska Coastal Management Program and the Kodiak Island Borough Coastal Management Program and will assist in the implementation of these programs.

To establish a plan with realistic land use categories that can be implemented through the Kodiak Island Borough subdivision and zoning regulations.

The land use plan for Old Harbor is shown in Figures 37 and 38.

Four basic land use categories have been identified in the Old Harbor land use plan.

They are:

Industrial

Mixed Use

Residential

Habitat and Resource Protection

These land use categories are only general guides and are not intended to stand alone or in the place of more detailed and structured land use ordinances developed by the Kodiak Island Borough in close cooperation with the City of Old Harbor and local property owners.

Industrial

Future industrial development should be located near the shoreline of old town where the best marine transportation access is located. This includes the ocean dock area and the small boat harbor. Another likely area for industrial development would be near the proposed site of the new airport; however, this area is better addressed in the mixed use category.

Industrial development in the old town area may be encouraged by the better availability of utilities. Industrial development elsewhere in Old Harbor could entail the extensive construction of additional utility lines.

Mixed Use

Those areas of the existing townsite of Old Harbor that are primarily located outside of the established residential subdivisions (with some exceptions) have been identified for mixed use development. In addition, existing development areas upland from the small boat harbor are also designated for mixed use. The mixed use category is intended to include land uses similar to the ones found in old town at this time. These uses include residential, commercial, industrial, waterfront related, public, and institutional land uses.

Residential

Residential areas designated in this plan consist primarily of existing residential subdivisions that have already been developed. The residents of Old Harbor have indicated that small portions of these areas may be appropriate for other purposes, however, the areas should generally be preserved as strictly residential in character.

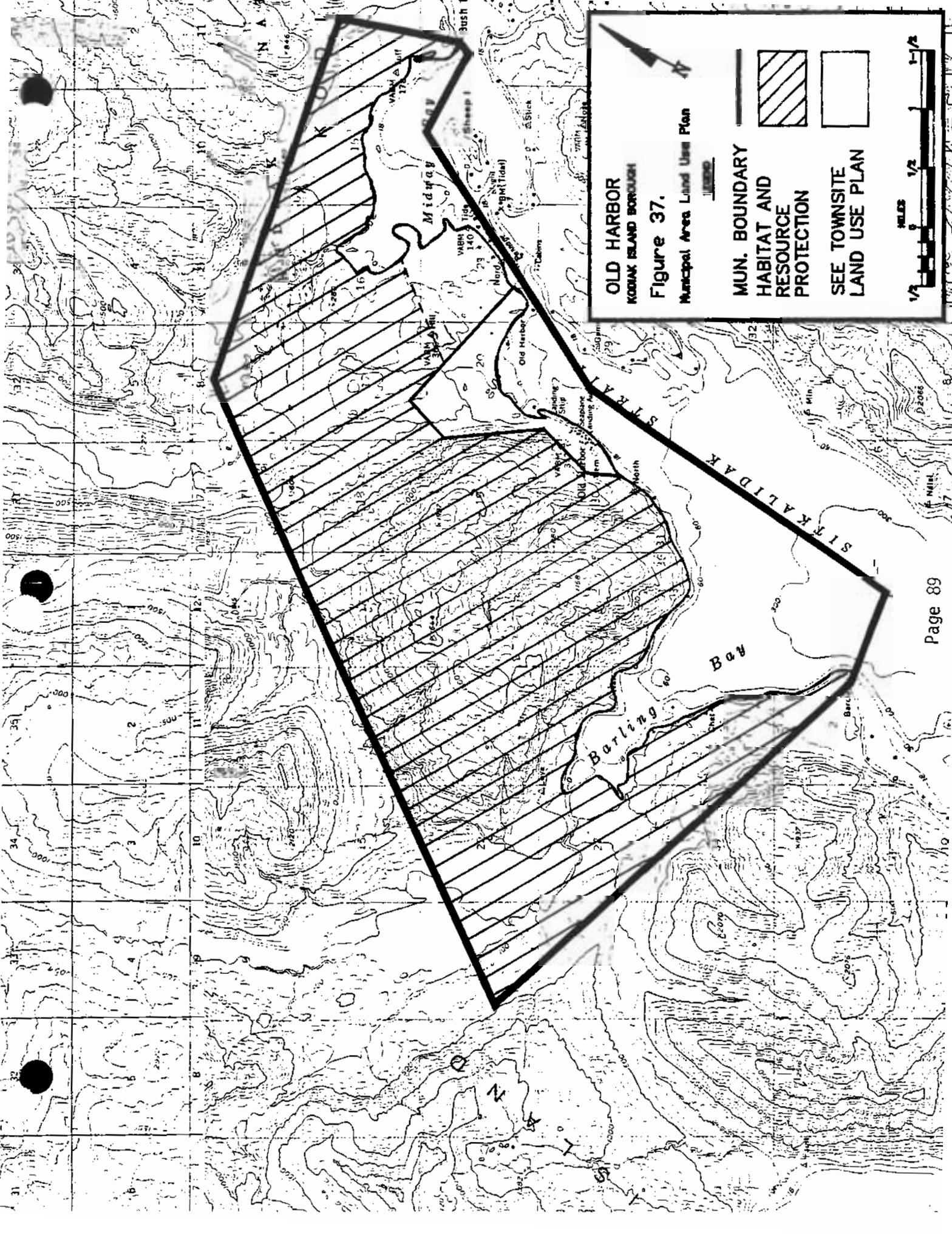
Habitat and Resource Protection

Habitat and resource protection areas are included in this plan because the corporate limits of Old Harbor contain a large land area that is unlikely to be developed in the future. This area extends 2 miles to the north, 1.75 miles to the west, and 3.5 miles to the south. These lands are primarily used for subsistence hunting and fishing activities. Residents of the community have indicated that protection of subsistence resources is a high priority. The functions of the habitat and resource protection category are as follows:

1. To protect and enhance the use of habitat and resource protection areas for subsistence hunting and fishing activities. This protection is a priority of community.
2. To protect the community's watershed and a reservoir from encroachments and potential degradation.
3. To allow for the future development of new commercial and/or industrial facilities related to the fishing or mariculture industries at selected locations. Old Harbor residents have expressed a strong desire to be

consulted and involved in the site selection process for new developments within the corporate limits.

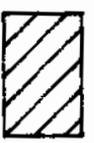
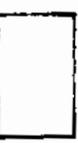
4. To enhance the preservation of open space for outdoor recreation and enjoyment by community residents.



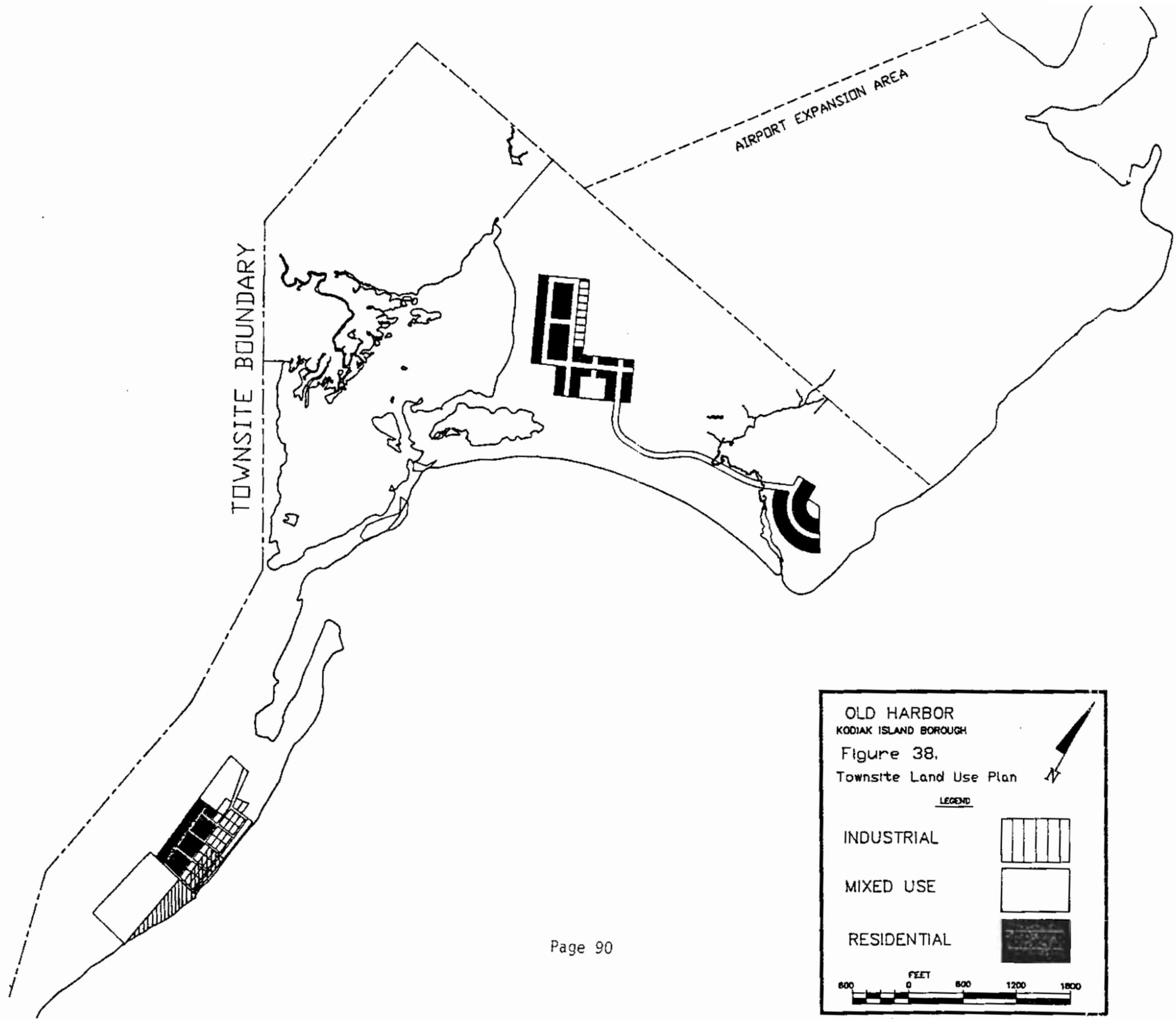
OLD HARBOR
KODIAK ISLAND BOROUGH

Figure 37.

Municipal Area Land Use Plan

-  **MUN. BOUNDARY**
-  **HABITAT AND RESOURCE PROTECTION**
-  **SEE TOWNSITE LAND USE PLAN**





TOWNSITE BOUNDARY

AIRPORT EXPANSION AREA

OLD HARBOR
 KODIAK ISLAND BOROUGH
 Figure 38.
 Townsite Land Use Plan

LEGEND

INDUSTRIAL	
MIXED USE	
RESIDENTIAL	

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 FEET

CAPITAL IMPROVEMENTS PROGRAM

The capital improvement project priority list is based on a number of discussions with community residents and elected officials. The capital improvement projects are intended to be a means of implementing future goals and objectives of the City of Old Harbor.

COMMUNITY PRIORITY LIST

Priority	Project*	Estimated Cost (In 1,000's)	Year
1	Erosion Control	350	91/92
2	Village Medical Clinic & Tsunami Shelter	212	91/92
3	Landfill Relocation	650	92/93
4	Terror Lake Intertie	2000	92/93
5	Community, Commercial, & Recreation Center	500	92/93
6	Fuel Tank Removal and Upgrade	250	93/94
7	Industry Research & Development	300	93/94
8	Minerals Study	50	94/95
9	Circuit Riding City Manager	60	94/95

NARRATIVE

1. Erosion control is an issue which concerns the local road system in Old Harbor. Old Harbor is unique in that the town is separated into three distinct areas which are connected by a unimproved road system. The most important link in this

* See narrative for explanation.

system is the section of road which crosses the lagoon separating old town from new town. The trend recently has been a larger percentage of Old Harbor residents relocating to the new town section of Old Harbor. The primary community institutions however, including the Russian Orthodox Church, City Offices, Post Office, Clinic, and School, among others, are still located in old town. This results in increased traffic over this critical link of local roadway. In addition, the current location of the airport is in old town, which means that most residents must travel over the road from new town to old town to get supplies.

This road has been subject to erosion due to wind and tidal action. Several attempts have been made to keep this roadway from flooding and eroding on a seasonal basis. However, to date this issue still provides a major source of concern for Old Harbor residents.

Many residents would like to see the grade of the road raised as much as three (3) feet, to inhibit further erosion and to provide an extra measure of insulation for underground utilities located in the right-of-way.

2. The Community of Old Harbor has identified a site for a new medical clinic in new town. This facility would serve several functions; primarily it would house the town's medical facility and also provide a tsunami shelter in the event of an earthquake. The existing clinic facility is located in old town, where the buildings were replaced after the 1964 earthquake. The clinic is therefore located in a known hazardous area and could not be counted upon as safe shelter for the community in the event of a tsunami. In addition, it would be devastating to the community to lose such a facility in the midst of a natural disaster as there is always the possibility of mass casualties as a result of such an event.

Another reason for moving the clinic to a new site is the deteriorating condition of the structure in which the clinic is currently housed. The cost estimate for a new clinic and multi-purpose building is \$212,000. The State Legislature appropriated \$94,000 for this project in FY88 and another \$70,000 in FY89. These funds were appropriated in the form of municipal grants which are being applied to the phased development of the project. While it appears that only \$49,000 is needed to complete the project, it is expected that additional expenses due to the phasing of the project will raise the total cost of the facility.

3. An area near the sewage lagoon has been used for solid waste disposal for a number of years now. Often, the residents of Old Harbor take their garbage down to a place near the beach and burn what they can. The unburnable garbage is covered over with soil. The areas where this can be done, however, are rapidly reaching capacity. The residents expect that there will be some opportunity to locate a new landfill site once the Alaska Department of Transportation relocates the airport to a site near new town. Residents feel that the cost of putting in a road is the major obstacle to establishing a new landfill in the area north of the proposed airport. The Kodiak Island Borough constructed the previous landfill which was located on the old town side of the lagoon with grant funds from the federal government; this landfill is no longer in service.

4. The community of Old Harbor, like most other communities is extremely interested in broadening the economic base of their community. They feel that the best way to provide an incentive for development is to obtain cheaper and more reliable electrical power through the construction of a Terror Lake power intertie. At the present time, electrical power is the most expensive type of

energy available in Old Harbor. As a result, it is only used for basic power requirements. All heating is by oil fired furnaces and water heaters. Cooking is usually accomplished on propane fired stoves. The cost of diesel fuel is currently about \$1.85 in Old Harbor. Diesel fuel makes up a large percentage of the cost of power generation in Old Harbor. In addition, other operation costs and the loss of power through transmission has made the cost of electrical power exceedingly high. The residents of Old Harbor would like to attract a land based processing facility to their community. However, they feel that the cost of electrical power today acts as a major disincentive to locate a processing facility in Old Harbor.

5. The residents of Old Harbor have had several meetings with representatives of the Kodiak Area Native Association in order to determine their social and economic needs and wishes. The Community has expressed a wide range of social and economic concerns some of which could be addressed quite easily if only there were appropriate facilities available in the community. Out of these meetings, the community of Old Harbor has developed a general plan for a mixed use community building which could be used to meet a number of social needs such as a place for teenagers, senior citizens and other community groups to meet and hold activities. The facility would also provide support for the small boat harbor by housing both public showers and commercial laundry facilities. The building could also have some lease area for the inclusion of some needed enterprises which the community would like to encourage such as a small cafe.
6. Fuel tank removal and upgrade is a concern of the residents of Old Harbor for several reasons. First, the location of the tanks along the shoreline, while convenient for the off loading of bulk fuel from transport barges, poses an ever

present danger to the marine environment in the event of petroleum spills. The tanks are also located in an identified hazardous area. A significant earthquake could easily generate a wave that would wipe out the town's fuel reserves, as well as fouling the environment. The town has a 60,000 gallon fuel tank that was installed in the ground above and behind the church. The tank has never been used for primary storage however. This one tank is the equivalent of the four 15,000 gallon tanks currently providing storage along the shoreline. If it could be put into service, it would eliminate the need for at least two of the existing tanks which currently provide storage for heating fuel.

7. Old Harbor is interested in having fish processing and other commercial fishing support industries locate in the community. A feasibility study to determine the need for complementary industries and infrastructure requirements would be of great assistance in furthering these goals. In addition the community is interested in further research of fisheries enhancement efforts in the Old Harbor area. Residents speak of once productive streams that were over harvested prior to the advent of regulatory intervention by the government. They would like to see these streams made productive once again so that the community would have a greater opportunity for economic growth and a more stable local economy through the diversity of different fish runs.
8. The Koniag Regional Native Corporation holds the subsurface rights to the land holdings of the Old Harbor Native Corporation. An assessment of the mineral potential of these lands would give the corporations a better idea of the value of these lands and also provide insight into how best to manage these lands. If minerals were found to be of sufficient concentration or value as to support exploitation, this could provide a measure of economic benefit to the Old Harbor

community as well as provide potential jobs. It should be noted that corporation lands located in the Kodiak National Wildlife Refuge are not available for commercial mineral resource extraction.

9. The community of Old Harbor, in conjunction with several other Kodiak Island communities, has expressed some interest in the creation of a circuit-riding city manager position. This person would travel around from village to village, coordinating the administrative functions which are now accomplished by elected mayors. Village mayors are for the most part, lay people who may or may not be compensated for their efforts, depending on local ordinances. While these mayors may get to know people in the borough and state governments, they are not always in a position to provide a total commitment to the administrative job of running a city when they have other occupations and family responsibilities to attend to.

It is felt that a competent city manager could effectively administer two (2) or three (3) villages and provide for a less seasonal variation in the local government. Also, a professional manager might be more adept at accessing outside resources that are required to implement community goals.

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