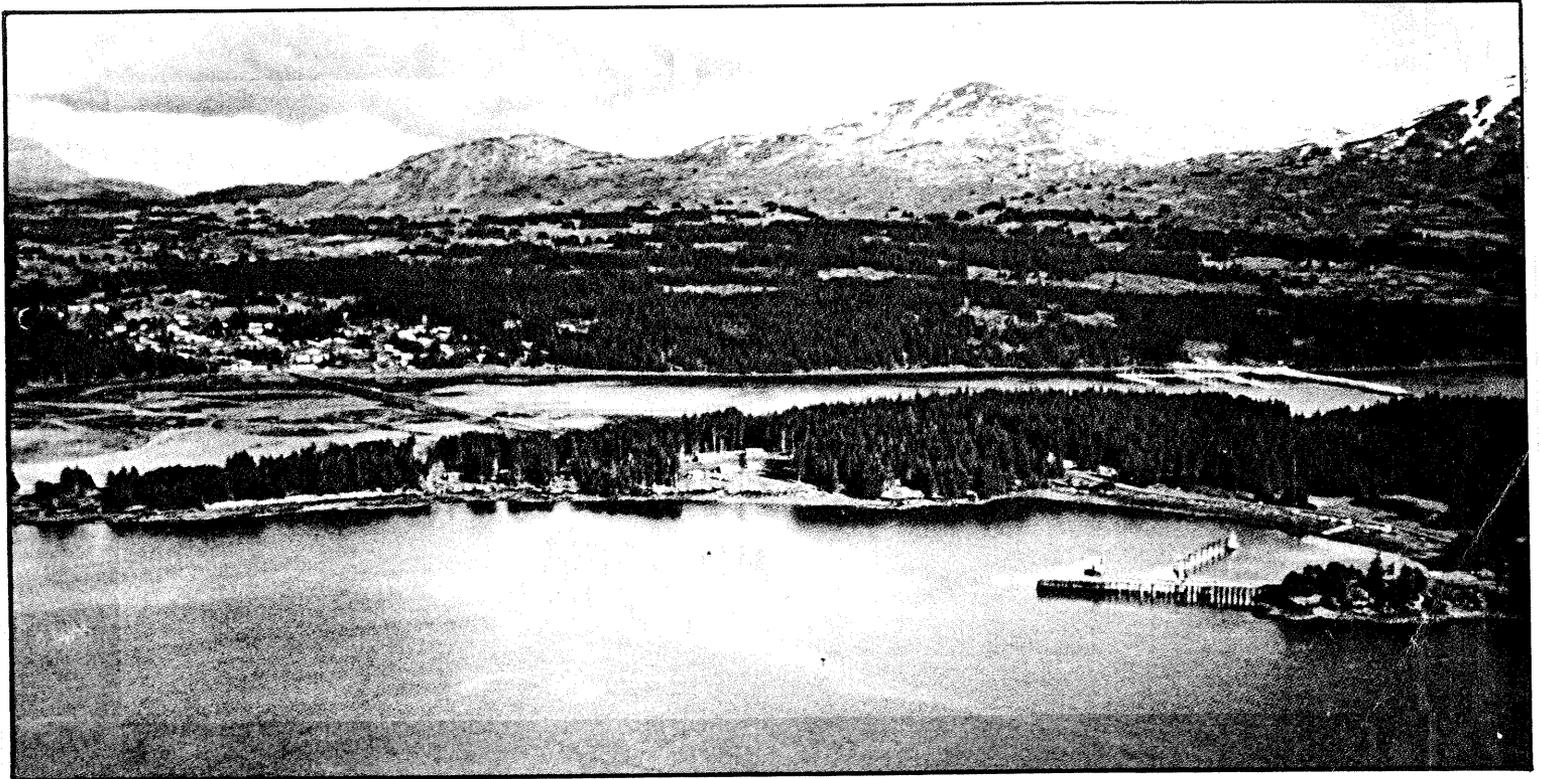


PORT LIONS

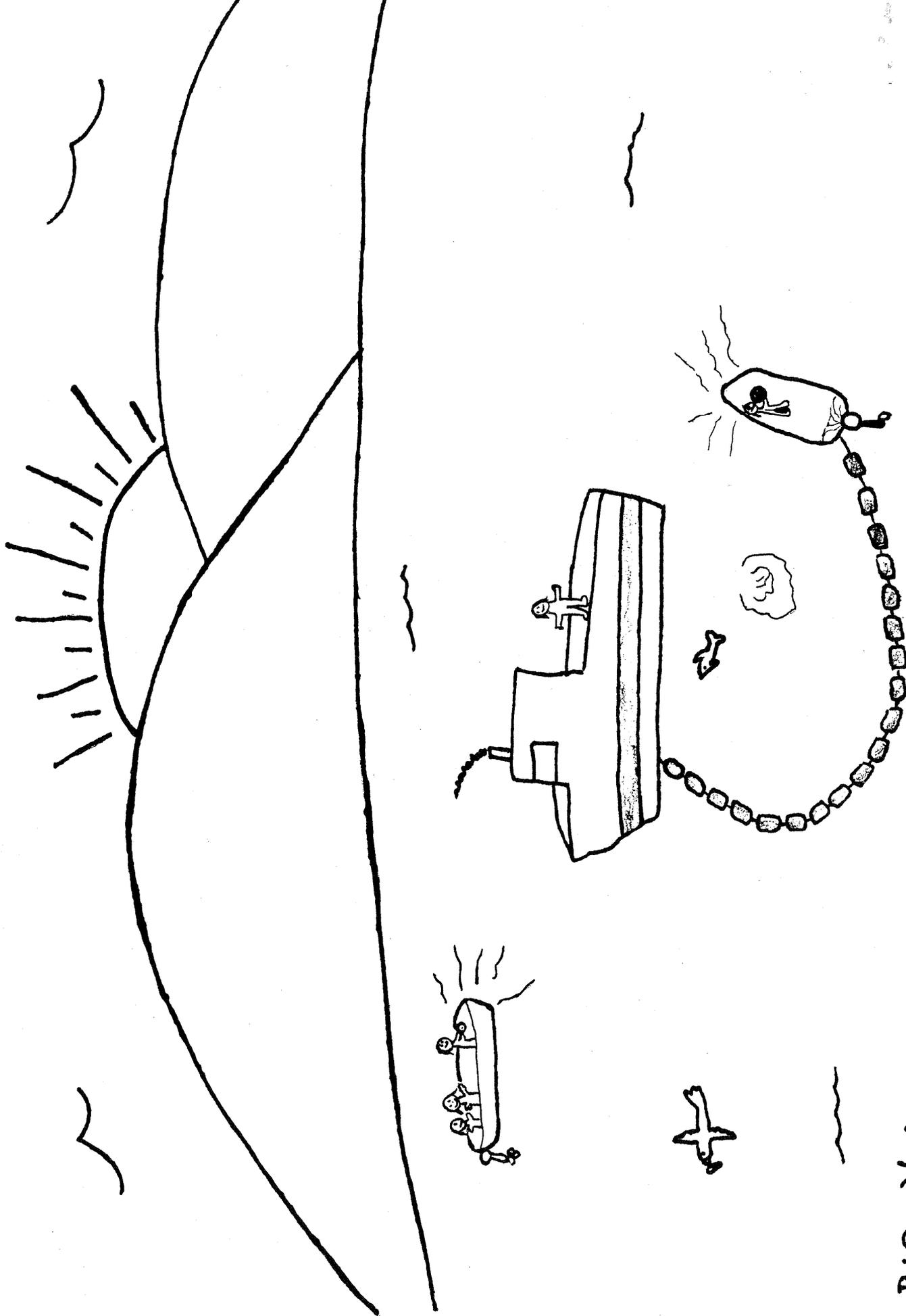
COMPREHENSIVE DEVELOPMENT PLAN



Prepared for
The City of Port Lions,
(Originally adopted January, 1982)
and revised by
The Kodiak Island Borough
Community Development Department

REVISION
November 1997

Port Lions is the Place to be



By: Rose Ward June 1992

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ACKNOWLEDGEMENTS

KODIAK ISLAND BOROUGH ASSEMBLY

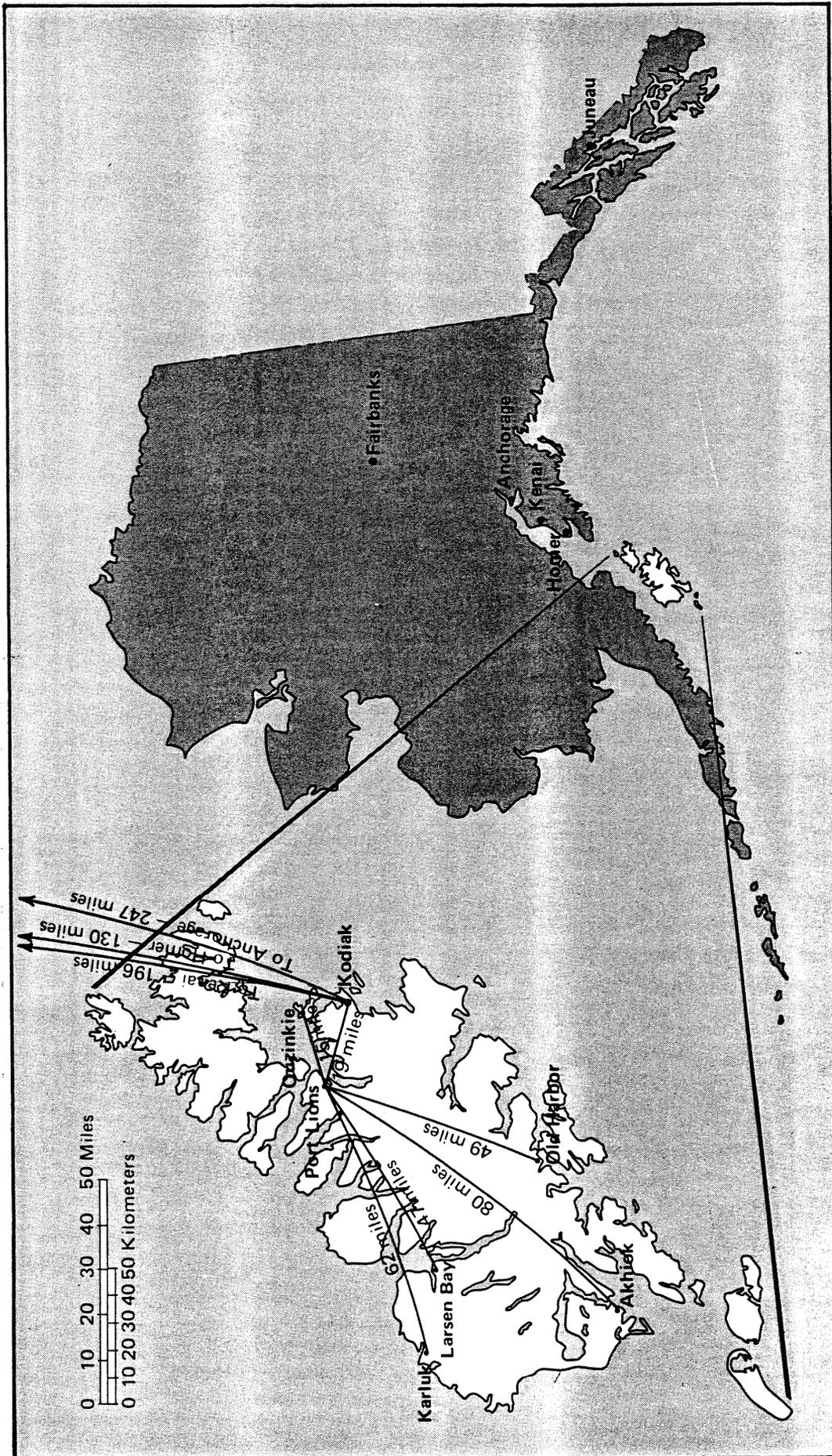
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Robert Wagner - Deputy Mayor
Wayne Lukin - Member
Margaret Nelson - Member
Arnold Kewan - Member
Wanda Kaiser - Member
Melvin Squartsoff - Member



PREFACE (1997)

The comprehensive plan serves as a guide for decisions about location and focus of future land uses, as well a future capital improvement needs and scheduling. As an aid in evaluating development proposals, assessing potential impacts and formulating capital budgets, the plan seeks to improve the physical environment of the community as a setting for human activity while promoting the interest of the community at large.

It is through the process of identifying local issues and problems and taking inventory of environmental, social, and economic conditions that a comprehensive plan formulates community goals and objectives. Ideally, this imparts a sense of direction and purpose, reflecting how the community wishes to develop. Fundamental to this is ensuring that the plan remains up-to-date and current, accurately reflecting emerging viewpoints and changing conditions.

This last step is, in many ways, the most vital in the process since it will ensure that the comprehensive plan is a living document that grows with the community and adapts to change. It is this that has recently been undertaken and, with completion of this plan revision, accomplished by the community of Port Lions. The Preface of the original 1982 Port Lions Comprehensive Development Plan reflects on the achievement of the people of Port Lions in interweaving cultural tradition, recreation and employment into a viable community. With this plan revision, that theme is continued to help guide the community into its future.

ORIGINAL PREFACE (1982)

The people of Port Lions have achieved a unique way of life that has successfully interwoven the elements of employment, recreation and cultural tradition into a viable community. They have done this without producing a negative impact on the natural environment. The water and forest are as much a part of this community as the houses and streets, and the people feel very strongly about their local amenity.

Yet, Port Lions has to provide for future growth if their young people are to find employment in the local community. This growth must be accommodated without disrupting the local lifestyle and the natural environment. The comprehensive development plan provided herein represents a means for achieving this.

The plan includes suitable space for the development of the seafood processing industry and support facilities. This will provide for employment that is in keeping with local tradition, but of further importance, Port Lions is strategically located for the development of the bottomfish industry which is of growing importance not only locally but to the State and Nation as well.

The area set aside for industrial growth is buffered from other community activities. Future residential growth will be directed to new areas so that the scale and community harmony of the existing residential area will benefit from future growth and be protected by prohibiting competing commercial areas from developing. The plan provides for ample parks, shoreline access and protects the coastline from unsightly and non-water dependent development.

If the plan is followed, the difficult task of providing for more growth, yet, retaining the existing community scale and local values will largely be achieved.

William A. Walton, Director
Kodiak Island Borough
Community Development Department
1982

HISTORY

1964 is considered the beginning date for Port Lions. However, it should be recognized that Kodiak Island has a record of human occupation for at least the last 6000 years. Several sites within or near the city limits of Port Lions have been documented as pre-European occupation. Three of these are on the Peregrebni Peninsula and one is at the head of Settler Cove. Another possible site is at the north bank of the mouth of the Port Lions River (Source: 9).

Three homesteads were established on the upper cove and Peregrebni area during the early Twentieth Century, and a sawmill was located near the mouth of the Port Lions River during this same period.

Port Lions was established as a city after the village of Afognak on Afognak Island was partially destroyed by the Tsunami which resulted from the Good Friday earthquake on March 27, 1964. As a result of the earthquake, the land at Afognak had sunk about four and one-half feet, rendering the location even more potentially hazardous. Thus, the situation required the relocation of the village.

The site at which Port Lions is situated was located by village residents Oscar Ellison and George Naumoff while on a reconnaissance survey on May 14, 1964 (Source: 10).

With assistance from the Alaska Lions Clubs, the U.S. Bureau of Indian Affairs, U.S. Public Health Service, a group of Mennonites and other volunteers, a town site was surveyed and laid out, sewer and water systems were installed and forty-four homes were constructed by late 1964, when the first residents moved from Afognak. In 1966, Port Lions was incorporated as a fourth class city. Port Lions was subsequently changed by state statute to a second class city.

The population has increased since that time, more homes have been built, businesses developed and public facilities and services have been established to meet the requirements of village life.

LOCAL GOVERNMENT AND NATIVE CORPORATIONS

City of Port Lions

Port Lions is a second-class city, and as such, the city has the power to provide certain services including fire protection, street maintenance, water supply, sewage collection and garbage collection. Under contract with the State, the City maintains the state road and the air strip and provides a shorehand to tie up the state ferry when it docks at Port Lions. The City also owns a public dock and small boat harbor. The City also provides several parks, a cemetery, maintains a solid waste disposal site, a library and a health clinic.

Port Lions has the power to levy sales tax and special property assessments, but at the present time, no taxes are being levied. The major sources of revenue come from user and service fees and state and federal grants (Source: 11).

The City of Port Lions is governed by an elected, seven member council, which in turn elects a mayor from the council members. A City Clerk and an Accounts Receivable Clerk are employed to administer city business. Several other persons are also employed by the City as maintenance and service personnel.

Kodiak Island Borough

The Kodiak Island Borough is governed by an elected seven member assembly and a mayor. The elected mayor is responsible for implementing policy and directing the Borough staff. The Borough has the authority to levy property taxes and has the responsibility for planning and zoning, education and park and recreation programming. This pertains to the villages, such as Port Lions, as well as the unincorporated area. Planning and Zoning and subdivision for Port Lions are conducted through the Borough Community Development Department.

Port Lions Traditional Tribal Council

The Port Lions Traditional Tribal Council is a native non-profit corporation and is completely independent of city government. However, the Tribal Council and the City work closely together on numerous matters. The Tribal Council's main responsibilities are administering tribal and federal funds for social programs, such as the pre-school program.

Afognak Native Corporation

The Afognak Native Corporation is a private, native-owned village corporation that has extensive land holdings on northern Kodiak Island, including almost all of the land surrounding the City of Port Lions and half of the land within the city limits. The Afognak Native Corporation has conveyed land and deeded easements to the City of Port Lions and provides the site for solid waste disposal. The approximately 800 acre balance of the City's 1,280 acre 14C-3 ANCSA entitlement is in the process of being conveyed to the City of Port Lions by the Afognak Native Corporation.

Koniag Regional Corporation

The Koniag Regional Corporation is a private, native-owned company. Koniag holds title to the mineral rights to all of the land which is owned by the Afognak Native Corporation.

Municipal Boundaries

An annexation in 1983 expanded the municipal boundaries of Port Lions to encompass 8.75 square miles, of which 6.6 square miles is land area. All land surrounding Port lions is owned by the Afognak Native Corporation.

Existing land use includes both public and private development. An inventory of these uses is provided in the following table:

TABLE NO. 1
LAND USE/OWNERSHIP

OWNERSHIP	PRIV.	CITY	BORO.	STATE	FED.	COOP.
RESIDENTIAL						
Single-family	97					
Multi-family	4					
Apt. (w/lodge) ¹	1					
COMMERCIAL						
Grocery Store	1					
Lodge ²	2					
Petroleum Sale	1					
COMMUNITY FAC.						
Elementary Sch			1			
High School			1			
Pre School ³	1					
Commun. Hall ⁴		1				
Library		1				
Clinic ⁵		1				
Church	2					
Fire Station		1				
Cemetery		1				
Storage/Whse		3				
Parks		3				
Post Office					1	
UTILITIES						
Water Trtmt.		1				
Water Tank		1				
Telephone Bldg	1					
Television R/T	1					
Generator	1					1
Storage Dam ⁶		1				
PORT FACILITIES						
Sm. Boat Hrb ⁷				1		
Public Dock		2				
Breakwater					1	
Airport ⁸				1		
Seaplane beach		1				

1. One apartment is included with the lodge.
2. The lodges contain rental units.
3. Administered by the Port Lions Traditional Tribal Council.
4. Includes a community hall as well as administrative offices for the City of Port Lions.
5. The building is owned by the City but it is funded by the U.S. Public Health Service, private fees and revenue sharing funds.
6. This provides the reservoir for the Port Lions water supply.
7. Small Boat Harbor is owned by the State of Alaska and managed by the City of Port Lions.
8. The airport is owned by the State but is maintained by the City of Port Lions.

TOPOGRAPHY

The topography in the Port Lions area has been mostly influenced by Pleistocene glaciation. Glaciers occupied the valley and flowed toward the sea, scouring the bedrock. In retreat stages, various amounts of till were deposited. Hummocky lakes are found west of the village at about 300 feet elevation. The drainage pattern is poorly developed, with many streams draining small areas, typical of glacial moraine areas (Source: 4).

Major landforms include Mt. Ellison (2000 feet), approximately two miles from the village center, and Peregrebni Peninsula, a deposition formed area of nearly 300 acres connected to the mainland by a narrow isthmus which forms Settler Cove. The Port Lions River, which drains approximately fifteen square miles, empties into Settler Cove.

Elevations on the Peregrebni Peninsula rise to eighty-five feet with most of the area between twenty-five and seventy feet. Most of the isthmus is below fifteen feet elevation. The area at the head of Settler Cove and south of the road is above twenty feet elevation, gently sloping upward to reach 100 feet elevation approximately 1600 linear feet from the shoreline. The developed portion of the village rises from the shoreline to 175 feet elevation (Kizhuyak Drive), with a generalized slope of 6.25%.

CLIMATE

Kodiak Island is located in the maritime climatic zone. This is characterized by cool summers and warm winters. The City of Kodiak, the nearest weather recording station (nineteen miles), receives an average of fifty inches precipitation annually, which includes seventy-five inches of snow. The average wind speed is from the Northwest at 8.7 knots per hour. Kodiak has 8860 annual average degree heating days and 1575 growing degree days, with a 148 average annual frost-free days (Source: 1)

The prevailing wind at Port Lions tends to be from the northeast, which brings moist air from the ocean; this is particularly prevalent in the fall and spring and occasionally in the summer. In the winter, northwesterlies bring cold air, while southeasterlies and southwesterlies bring warmer air. Westerlies most frequently occur during the summer, which bring good weather. Winds on occasion have been estimated at eighty miles per hour.

GEOLOGY

The bedrock geology of the area in which Port Lions is located consists of marine sediments dating from the Cretaceous and Jurassic periods of the Mesozoic era. These are in the form of graywacke and slate and lie at varying depths, including surface exposures. This rock is fractured and tightly folded. Strata tend to dip to the west from seventeen to twenty-five degrees. A mantle of till covers the bedrock at thicknesses of up to thirty feet. Volcanic ash and organic silt overlay the till and is usually at a thickness of less than four feet (Source: 4).

Conditions appear to be satisfactory for light structures, however, in the absence of a detailed geologic survey, slopes which exceed fifteen percent should be evaluated to determine if unconsolidated material underlies the surface. Only a few areas of the city exceed fifteen percent, thus, this should be only a minor limitation.

SOILS

A soil survey has not been conducted for the Port Lions area. However, a soil survey was conducted and mapped for the area directly east of Kizhuyak Bay (Source: 7). In addition, soil test pits were dug and analyzed for the Ptarmigan and Wakefield subdivisions (Source: 8). From these sources an estimate of soil properties was made. It should be recognized that this is only a rough estimate and does not substitute for a soil survey or soil engineering study.

The majority of the soils on which Port Lions is located appear to be of the Kodiak Series. The characteristics of this soil in terms of urban development properties are listed in the following table:

TABLE NO. 2
KODIAK SOIL SERIES

CHARACTERISTICS	STABILITY	NOTATION
Slippage potential	●	1
Slope	●	2
Permeability	●	3
Seasonal saturation	●	4
Erosion potential	●	5
Frost action	●	6
Shrink/swell	.	7
Corrosivity	●	8
Depth to bedrock	◆	9
LIMITATIONS		
Light structures	◆	10
Drainfields	●	11
Roads	◆	12
Utilities	●	13

- Good
- ◆ Moderate
- Poor

1. There is a potential for slippage in the local areas that exceed twelve percent. The soil beneath the volcanic ash horizon can liquefy when wet.
2. A few localized areas contain excessive slopes - above fifteen percent.
3. The permeability rate range is 0.6 to 20.0 inches per hour, with an average for the upper four strata of 0.95 to 3.0 inches per hour.
4. The upper strata of the soil horizon is often saturated due to rainfall that exceeds the permeability rate.
5. Due to the frequency of rainfall and the volcanic ash content in the soil, the potential for erosion is high.
6. Frost action is moderate due to the abundance of moisture in the soil during periods of rainfall coupled with alternating freezing and thawing.
7. Due to the low clay content of the soil, there is little shrink/swell action.
8. The acid content is high in the Kodiak Series.
9. Soil pit excavations in the Wakefield subdivision area revealed that the bedrock averaged five feet, with a minimum of four feet and a maximum of a little over six feet. Similar excavations in the Ptarmigan subdivision above the existing town site indicated that bedrock averaged six and one-half feet, with a minimum of five feet and a maximum of ten feet.
10. The major limitations for light structure include localized steep slopes and seepage areas.
11. Drainfields are severely limited to seasonal saturation and localized seepage.
12. The AASHO rating for the Kodiak Series includes A-1, 2, 4, 5 and 8. The A-8 classification is limited in extent but still is a potential problem in terms of stability.
13. Corrosivity to both steel and concrete is rated as high. Thus, below grade steel and concrete should be properly protected. In localized areas, bedrock may be close to the surface which would necessitate blasting for laying pipe.

FISH AND WILDLIFE

Fish and wildlife are abundant around the Port Lions area and throughout Kodiak Island. It is one of the unique regions of the world in terms of fish and wildlife, known for the large stocks of salmon and the Alaska Brown Bear. Fish and wildlife resources are utilized in three ways - commercially harvested, sport hunting and fishing and as subsistence food supply.

Commercial

Commercial activities are confined to fishing. The City of Kodiak is one of the nation's most important fishing ports and seafood processing centers. Many residents of Port Lions are engaged in various aspects of the commercial fishing industry, with Port Lions serving as a home port for a number of boats. Set gill netting and purse seining are the permitted means of taking salmon around Kodiak Island.

Salmon found in Kodiak Island waters include coho, pink, chum and sockeye. The coho and pink salmon utilize the Port Lions River for spawning and all four species utilize the Kizhuyak Bay tributaries as spawning sites (Source:2). In addition, area waters enjoy runs of Dolly Varden and resident rainbow trout are found in the Port Lions River and several other local streams.

In addition to anadromous fish, other fin fish resources are abundant. Those being commercially harvested at the present time are herring, and to a lesser extent, halibut. A tremendous potential exists for the development of the bottomfish industry and Port Lions has the probability of playing a major role as both a fishing port and processing center. At the present time, only foreign vessels are fishing for bottom fish. Principal species being taken are pollock, flounder, sablefish and ocean perch. Bottomfish species found in the Kodiak Island region are listed in the following table:

TABLE NO. 3
COMMERCIALY IMPORTANT BOTTOMFISH

SPECIES	DEPTH OF HIGH AVAIL- ABILITY 1980 SEASON (FATHOMS)	AREA OF GREATEST CONCENTRATION
Pollock	100	Shelikof Strait
Cod	71-110	Shelikof Strait
Sablefish	90-110	Raspberry Island
Ocean Perch	85-95	*
Halibut	110	Shuyak Island
Turbot	71-110	W. of Afognak Island
Flathead Sole	85-125	Shuyak & Afognak Isl
Rock Sole	45-55	Middle Shelikof Str.
Atka Mackerel	95-115	*

* No major concentration
Adapted from Source 2

Three crustacia are commercially harvested in the off-shore waters of Kodiak Island. These are the Tanner and Dungeness crab and pink shrimp.

Shellfish of commercial importance include crab, shrimp and scallop. These are found in off-shore beds which parallel the east side of Kodiak Island and in smaller beds off the northwest tip of Kodiak Island (Source: 1).

Commercial fur trapping is carried out to a limited extent with fox and land otter being the most profitable species.

Subsistence

Subsistence hunting and fishing is extremely important to the people of Port Lions, with approximately half of their food supply coming from the local forests and waters. The main sources are salmon, with coho and sockeye being the preferred species, and venison. In addition, halibut, king and Dungeness crab and clams are regularly used, with ducks and ptarmigan to a lesser extent.

Sport

Sport fishing and hunting are activities that are pursued in the waters and forests around Port Lions mostly by village residents. Game species include the coho and pink salmon, deer, bear, ptarmigan and, to a lesser extent, waterfowl. Deer are the most popular species hunted and represents the largest number harvested for sport purposes. The Alaska Brown Bear, also known as the Kodiak Bear, is the largest carnivore in the world. This bear exists in substantial numbers on Kodiak Island and is prized as a big game trophy. The Kodiak National Wildlife Refuge, a few miles from Port Lions, has been established by the federal government for the management and propagation of the Alaska Brown Bear. Other big game animals found on Kodiak Island are mountain goats and Dall sheep. Roosevelt Elk inhabit nearby Afognak and Raspberry Islands.

Though not considered game species, other animals of interest found in the general vicinity of Port Lions include seven species of whale, two species of porpoise, sea otters, Stellar sea lions, harbor seals, eagles and the peregrine falcon (rare).

TABLE NO. 4
FISH AND WILDLIFE SPECIES

	SALMON					CRAB			SHELL FISH			GAME			WATER FOWL		FUR BEARING				
	KING	COHO	PINK	SOCKEYE	CHUM	KING	TANNER	DUNGNESS	SCALLOP	STEAMER	BUTTER	PINKS	DEER	BEAR	PTARMIGAN	DUCKS	LAND OTTER	RED FOX	BLACK FOX	CROSS FOX	HALIBUT
COMMERCIAL	•	°	°	°	°	°		°	°	°								°	°	°	
SUBSISTENCE		°	•	°		°			°	°	°	°	°	°		•	°				°
SPORT	•	°	°										°	°		°	•				

- Minor Importance
- ° Major Importance

VEGETATION

Large trees on Kodiak Island are confined to the coastal edge. The northeasterly boundary of the city limits of Port Lions approximately coincides with the extent of the forested area. Most trees which occupied the village center have been removed. The coastal edge is dominated by the Sitka spruce. Deciduous species, particularly Sitka alder, dwarf birch and low growing willows are found in recovery areas or along streamways.

Due to a lack of soil depth and exposure conditions, the spruce give way to shrub species. The more common of these species are Labrador tea, blueberry and low bush cranberry.

The area above the head of Settler Cove consists of a mixture of spruce and shrub. This area also exhibits evidence of land clearing and/or domestic grazing which occurred earlier in the century.

Numerous small wetlands are found near the shoreline in the upper cove area.

SETTLER COVE

The lifestyle and economy are very closely tied to the existing resource base. Since it is a shared goal of the community that the lifestyle and economy continue, it is essential that future development be carried out in compatibility with the natural systems of the area.

Settler Cove is a significant system that deserves special attention. In addition to being an estuary, there are five distinct habitats found in Settler Cove. As an estuary, Settler Cove serves as a location for the mixing of seawater and freshwater, resulting in nutrient recharge and mixing.

An abundance of algal growth is found, as well as kelp beds and numerous species of seaweed. Many species of finfish, especially anadromous fish rely on the estuary for several life cycles, as do crustacea and shellfish. Certain marine mammals, sea otter and harbor seal, and terrestrial mammals, deer and fox, depend on the estuary and surrounding shoreline for food supply, as do waterfowl, shorebirds and raptors.

Within Settler Cove are found five shore habitats: wetlands, tideflats, low energy beaches, high energy beaches and rock outcropping beaches. The wetlands and tidelands are the most biologically productive. Material produced in these areas serves as food on the site as well as being transported by tidal action and currents to organisms miles out at sea. The consummation of this material is both direct and through build-up in the food chain. Many species which never enter Settler Cove depend on the organic material being produced there as a source of food. In addition to food production, the tideflats are host areas for spawning, larval and juvenile periods. Herring, coho and pink salmon, particularly depend on the tideflats of Settler Cove.

Low energy beaches (pebbly beaches), high energy beaches (cobbles and boulders) and rocky beaches (outcrops) are not as biologically productive as tideflats and wetlands but they serve as host areas for affixing organisms such as barnacles and mussels, as well as seaweed. They are also important nesting or roosting areas for certain shorebirds and serve as haul out areas for seals and otters. When organic debris collects among the rocks, it is used as winter feed by deer.

Settler Cove has one major stream, the Port Lions River, which serves as a salmon spawning area for coho and pinks. However, there are several smaller streams that drain into the Cove that are also important, for these convey nutrients from the uplands and wetlands which they drain. Thus, Settler Cove is the setting for numerous dynamic processes and will require continued careful thought in terms of its use and use of surrounding uplands if it is to remain in a healthy state of productivity and continue to serve the people of Port Lions and beyond.

TABLE NO. 5
SETTLER COVE SPECIES

	SPAWNING	JUVENILE	CATCH AREA	AGGREGATION	FEED AREA	NESTING AREA
Herring			•			
King Crab	•	•	•			
Dungeness Crab	•	•	•			
Tanner Crab	•	•	•*			
Shrimp	•	•	•			
Coho Salmon	•**	•	•	•		
Pink Salmon	•**	•	•	•		
Sea Otter					•	
Land Otter					•	
Harbor Seals					•	
Ducks					•	
Eagles					•	
Deer					•	
Fox					•	
Shorebirds					•	•

* Kizhuyak Bay only

** Tributary only

Table No. 7 provides a sampling of select benthic species native to Settler Cove. The table illustrates species found on rocky shores according to most favored tidal conditions. This shows the dynamic qualities of habitat in response to changing tidal conditions. These species occupy an important link on the lower end of the food web. Development on the shoreline or within the Cove can affect the productivity of benthic species and ultimately higher order species.

TABLE NO. 6
BENTHIC SPECIES

	Trophic Type	High Intertidal	Mid-Intertidal	Low Intertidal	Shallow Subtidal	Tide Pool	Splash Zone
Blood Starfish (<i>henricia leviuscula</i>)				●			
Green Sea Urchin (<i>Strongylocentrotus drobacheinsis</i>)	H						
Black Caty Chiton (<i>Kathrina tunicata</i>)	H			●	●	●	
Lined Chiton (<i>Tonicella lineata</i>)	H		●	●			
California Mussel (<i>Mytilus californianus</i>)	FF	●	●				
Sitka Periwinkle (<i>Littorina sitkana</i>)	C	●	●				
Puppet Margarite (<i>Margarites pupillus</i>)	H		●	●	●		
White-Cap Limpet (<i>Acmaea mitra</i>)	H		●	●		●	
Acorn Barnacle (<i>Balnus glandula</i>)	FF	●	●			●	●

H = Herbivore
C = Carnivore
FF = Filter Feeder

SHORELINE CHARACTERISTICS

Since shorelines are dynamic, it is wise to have an understanding of local characteristics in respect to land use planning and the location of development. Caution should be particularly exercised when considering high energy beaches and accretion beaches.

Settler Cove is relatively protected, while ports of the Peregrebni Peninsula are not. Most of the beaches consist of pebble to gravel size material. In a few places cobble to boulder-size beaches were observed; these are known as high energy beaches which receive larger waves during storm conditions. Only one small feeder bluff was observed, though evidence of erosion was found in the upper cove area. The latter is being produced as a result of land subsidence triggered from the 1964 earthquake. Extensive beach erosion has occurred in the waterfront area of the village center.

Bank conditions vary from, in a few locations, low profile slopes to sheer face bluffs, with the shorelines below the breakwater and Peregrebni Point having the highest banks.

CURRENTS AND COASTAL PROCESSES

Settler Cove and Kizhuyak Bay respond to waves generated to the east and northeast in Marmot Bay and tidal currents that affect all of Kodiak and surrounding islands. Tides around the island are typical of the eastern pacific, two high and two low each day. The maximum tidal range at Port Lions is 8.0 to 12.0 feet. Tidal currents in Settler Cove flow in a counter clockwise direction 1.0 to 1.2 knots in speed.

Kizhuyak Bay and Settler Cove are open to winds and waves from the east and northeast. Intense storms in the Gulf of Alaska produce strong easterly winds. These winds generate high waves that pound the east facing shorelines. Waves within Marmot Bay travel into Kizhuyak Bay and Settler Cove. Storm waves can reach heights of 6 to 7 feet at the entrance to Kizhuyak Bay. These waves strike the shoreline around Peregrebni Peninsula and the village center. Under extreme conditions, easterly winds can reach speeds of 80 to 100 mph creating waves 8 to 12 feet high in Marmot and Kizhuyak Bay.

Coastal erosion intensifies during storm periods, particularly impacting east and northeast facing shorelines. Beach sediments are driven into Settler Cove. From Peregrebni Point, sediment moves both into Settler Cove and around the outside of the Peregrebni Peninsula toward Port Wakefield and beyond. The beaches at Port Wakefield and other small isolated areas are products of the flow and deposition of littoral sediments in the local coastal area.

The village center and the Peregrebni Peninsula are subject to long and short term coastal flooding due to land subsidence and seismic seawaves. Those hazards should be considered in any coastal plan or development.

HAZARDS

Kodiak Island is situated in one of the most active tectonic, volcanic and seismic zones in the world. Tectonic movement and active faulting make the area subject to earthquakes. A major fault, the Border Range fault, runs parallel in length to the west side of Kodiak Island and is located approximately seventeen miles west of Port Lions (Source: 1). No local fault lines are mapped in the immediate Port Lions vicinity, however, several are visible on aerial photos one to two miles to the southwest (Source: 2). No rock face cliffs or extremely steep slopes are in close proximity to Port Lions and therefore landslides triggered from earthquakes are not a potential hazard to the village.

The location of Port Lions on Settler Cove make it relatively protected from tsunamis. However, the location of the epicenter, the direction of shockwaves and topographic barriers (or the absence of such) are the variables that determine the path of a tsunami and the extent of damage. There is always some potential that Port Lions, like any coastal village, could experience some affects of a tsunami.

Another potential hazard comes from volcanoes. There are no volcanoes on Kodiak Island, therefore eliminating hazards from lava, mudflows or flooding. However, there is a potential to receive ash fall from any of the fourteen active volcanoes that are within a 200 mile radius of Port Lions. The last major eruption left Kodiak Island covered with several feet of ash.

The original 1982 Port Lions Comprehensive Plan identified potential for oil spill as a hazard of major concern. Well organized and corrected community response to the Exxon Valdez oil spill in 1989 was a major factor in minimizing impact within the immediate municipal boundaries. However, an oil spill of any magnitude within or entering Kizhuyak Bay has the potential for devastating impact on the natural resources of the bay, on the economy of Port Lions, and on the lifestyle of residents. This remains a community concern, and is addressed on a region level by oil spill response sub-area planning.

LAND USE

The existing corporate limits of the City of Port Lions consists of approximately 8.75 square miles, of which 6.6 acres is land area.

Including tracts and a U.S. Survey, a total of 233 lots have been platted for urban use. These are found in three principal locations within the city limits. The first two areas, the Village Center and Ptarmigan Subdivision, are contiguous. The third area is located on the Peregrebni Peninsula and contiguous with U.S. Survey 1736. Commercial use is concentrated in the village center along the waterfront.

Within the principal platted areas along existing roads, 45% of lots are vacant (undeveloped), 45% are developed with single-family residences, 6% are public, 3% have business development, and 1% are churches. The analysis does not include industrial and public tracts on the Peregrebni Peninsula near and beyond the public dock, nor does it include tracts of Port Lions 2nd Subdivision along Airport Road which are zoned conservation and RR2 but have never been granted final subdivision plat approval and remain undeveloped.

COMMUNITY FACILITIES

Schools

Port Lions has a very well equipped elementary and high school building. These are operated by the Kodiak Island Borough School District. The school is staffed with seven full time teachers, one full time aide, three part time aides, and three support staff classified positions. The present population is forty-five elementary and fifteen high school students (September 1997). A new school was constructed in 1988. It was done in two phases the first one being classrooms and support spaces. It consists of three elementary classrooms and two high school classrooms, one being a science classroom that is shared with both primary and secondary classes. The first phase also includes a cafeteria, library, computer lab and all the support spaces. The second phase consists of a vocational education wing that has welding and wood shop classrooms along with a full size gymnasium. There is an extensive physical education program which includes both indoor and outdoor activities. The site also has a baseball diamond adjacent to the gym. In addition, the school is used regularly by the community for recreation. The school regularly offers workshops on special topics such as art, music, photography, computer labs, writing and has a library that is maintained for both elementary and high school use both during the day and evenings.

Clinic

The City of Port Lions owns and maintains a clinic. The clinic is set up to handle outpatient care. Staffing the clinic are a community Health Aid, Community Health Representative and a Mental Health Worker.

Library

Port Lions has a city-owned public library, presently undergoing major reconstruction that will incorporate it into one structure with the municipal offices and community hall. The collection includes periodicals, reference books, technical books, records, children's books and novels for all ages. The library is staffed by community volunteers. Fully funded, the new library will be finished in early 1998.

Community Hall

The old Community Hall was condemned and demolished and replaced in 1996 by a newly constructed 40'X50' (2000 square foot) building, containing 1500 square feet of hall area and 500 square feet of storage/restroom facilities. It is attached to the pre-existing 720 square foot office building, for a combined total of 2720 square feet of Community Hall/office building.

Fire Protection

Port Lions maintains a volunteer fire department with a pumper/tanker fire truck. Fire hydrants are connected with the city water system.

Cemetery

Port Lions owns and maintains an eight-acre community cemetery.

Solid Waste

A five-acre site is maintained for solid waste disposal and once a week garbage collection is provided by the City.

TRANSPORTATION

No roads connect Port Lions with other towns, however, it is conveniently accessible by air and water.

Water Transportation Facilities

The City owns and maintains a public dock on the Peregrebni Peninsula. The dock extends 440 feet into the water with a 200 foot right angle arm extending from the end, providing 21,000 square feet of surface area. The mean lower low water at the end of the dock is forty-two feet.

A sixty foot concrete launch ramp is located in the vicinity of the dock on Kizhuyak Bay. This is designed to accommodate small boats and to off-load barges.

A \$2,000,000 breakwater was completed in the summer of 1981 at the entrance to Settler Cove. This breakwater provides protection for about fifty-two surface acres of water, including twelve acres at fifteen foot MLLW and forty acres at ten foot MLLW. In addition, a float dock for small boats was constructed in 1982. The main float is 464 feet long with three extended arms of 365, 424 and 528 feet in length. In addition, a twenty-four by eighty foot concrete loading dock was constructed off the small breakwater. The end of this dock was in eighteen feet of water at MLLW.

The Alaska State Marine Highway System provides the ferry Tustumena for service to Port Lions. The Tustumena is normally out of service for approximately two months during the winter. The Port Lions public dock is the ferry terminus. The Tustumena can accommodate auto, passenger and freight service, the latter required to be in a vehicle or cargo van.

Air Transportation Facilities

The State of Alaska has provided a 100 by 2,600 foot pit run air strip. There is enough land at this site to substantially increase the length of the runway. The air strip is maintained under contract by the City of Port Lions and is open year round. It is connected by state road to the village center, some 1.75 miles to the south.

A float plane beaching area is located at the foot of Spruce Drive, which is convenient to the business district and city hall.

Regularly scheduled air service between Port Lions and Kodiak provides passenger, mail and freight service. Charter air service is readily available from Kodiak, nineteen air miles and fifteen minutes to the east. National air carriers connect Kodiak with the Alaska mainland and the lower forty-eight.

Circulation

All city streets and the state road are constructed of locally quarried pit run rock. The state road connects the air strip with the public dock on the Peregrebni Peninsula via the village center. A 2,175 foot wooden pedestrian causeway connects the Port Lions village center, spanning Settler Cove, with the Peregrebni Peninsula.

TABLE NO. 7
ROAD SYSTEM

State Road	Platted Developed Streets	Platted Undeveloped Streets	Unplatted Developed Streets	Pedestrian Causeway
23,100 ln.ft.	10,975 ln.ft.	5,725 ln.ft.	6,325 ln.ft.	2,175 ln.ft.
4.4 miles	2.1 miles	1.1 miles	1.2 miles	.4 miles

UTILITIES

The U.S. Public Health Service has stated that Port Lions has the best public utility system of all the villages in rural Alaska. A sewer and water system has been in operation since the City's beginning, and major upgrading and extension of the sewer and water system was recently completed by the U.S. Public Health Service. The water and sewer pipe system has been upgraded in 1994 by village safe water.

Water

The existing water system utilizes a 150,000 gallon reservoir located on Branchwater Creek as the source of supply. The reservoir was created by the construction of a timber dam that provides a top elevation of approximately 194 feet (Source: 10). The City of Port Lions has identified replacement of the existing city water dam as the top priority in the current Capital Improvements Program at a cost of \$800,000 (see Appendix A).

Water is fed by gravity flow to the treatment facility and then pumped to a storage tank located approximately at ground elevation 175 feet. Treatment is chlorination/fluoridation.

Auxiliary equipment includes a 500 gallon per minute pump located on the Port Lions River and connected to the water system, a 125,000 gallon steel storage tank is located northwest of the city center.

The minimum flow of Branchwater Creek has been estimated at 150 gallons per minute and the minimum flow of the Port Lions River has been estimated to be 550 gallons per minute. The water quality for both sources has been rated, respectively, excellent and good (Source: 10).

Sewer

The original sewer system, like the water system, was constructed in 1964 and was later extended to the Peregrebni Peninsula after residential development began. Sewage is collected by gravity flow from the village center into two 25,000 gallon septic tanks and then pumped beneath Settler Cove and released by means of a 2000 foot outfall into Kizhuyak Bay. Sewage from the Wakefield subdivision is collected into two 5000 gallon septic tanks and released through the 2000 foot outfall in Kizhuyak Bay.

Electricity and Lighting

Electricity is provided by the Kodiak Electric Association from the Terror Lake Hydro Electric Project. Most wiring is underground, with both overhead and underground wiring in the village center and for the public dock. The City provides street lights for the town center and for the public dock. An emergency standby generator is still being maintained for use as needed, as well as two portable generator sets.

Private Utilities

Private utilities consist of a satellite earth station, telephone/public television transmission and reception dish and local telephone equipment. These are maintained by Alascom and the Interior Telephone Company. In addition there is the Eyecom Cable Television Service, another private utility.

ENERGY

Domestic Use

The majority of the homes in Port Lions are heated with a combination of space heaters fired with fuel oil and wood stoves. The thirty-five homes that were recently constructed under a HUD contract all have airtight wood burning stoves with a fuel oil stove auxiliary unit. Most home cooking is done on electric stoves.

Fuel Supply

Kizhuyak Oil Sales (KOS) is owned by the Port Lions Tribal Government. It consists of three 30,000 gallon tanks within a tank; one each of Diesel No. 1, Diesel No. 2, and Unleaded Gasoline. Also present is a gas station for road traffic and a diesel delivery truck for home deliveries.

Electricity

Power is currently provided through the hydro-electric dam on Terror Lake.

POPULATION

The 1990 federal census revealed that sixty-eight percent of the residents of Port Lions were of Aleut/Indian descent. Most people of this category are mixed Aleut and European, as indicated by the predominance of Russian and Scandinavian surnames.

There were 73 family units in Port Lions in 1990. The average family size was 3.04 persons, the median age was 26 (Source: 13), and the sex distribution was 56% male and 44% female (1990).

Population counts and estimates for Port Lions that have been provided through the years are listed in the following table.

TABLE NO. 8
PORT LIONS POPULATION

YEAR/SOURCE	POPULATION
1966 Davis and Beak Consult.	180
1970 U.S. Census	218
1975 Galliett & Slides	250
1978 AK DCRA	232
1979 U.S. Army Corps	227
1980 U.S. Census	215
1981 Port Lions City Survey	262
1982	291
1983	291
1984	291
1985	291
1986	291
1987	302
1988	296
1989	300
1990	300
1990 U.S. Census	222
1991 & 1992 - State Certified Revenue Sharing figures	222
1993 Same as 1991/92	259
1994 Same as 1991/92	264
1995 Same as 1991/92	263
1996 Same as 1991/92	264

As stated in the 1982 Port Lions Comprehensive Plan the City of Port Lions remains committed to attracting industrial and commercial development consistent with the community's character and on a scale that will not overtax existing infrastructure or negatively impact lifestyle. Potential industrial development includes an oil service facility, seafood processing plant, boat service operations, and timber harvesting. Any such development can influence population growth. Growth beyond the scale desired can be avoided through land use controls and availability of utility services.

GOALS AND OBJECTIVES

Goals are statements about the town that represent ideal conditions that residents would like to retain or achieve in their community. Objectives represent means or standards for achieving or retaining goals. The comprehensive plan is a physical representation of the fulfillment of the goals and objectives.

The people of Port Lions share major concerns in regard to their lifestyle, local environment and economic opportunities. The goals and objectives for this revised plan reflect these concerns.

Economic

Goals

1. To encourage economic enterprise that is compatible with the lifestyle and environment of Port Lions.
2. To obtain for the residents of Port Lions the benefits of modern technology and competitive business.
3. To provide a stable economic base that will provide adequate employment opportunities for the residents of Port Lions.

Objectives

1. A diversified employment base shall be encouraged.
2. Adequate infrastructure shall be provided for business and industry.
3. Active solicitation of marine-oriented industry shall be pursued, including but not limited to canneries, bottomfish processing and boat repair.
4. Opportunities for the location of shore-based fish processing industry shall be provided.
5. Shore-based industry shall be given preference over floating industry.

6. Opportunities for the location of boat repair industry shall be provided.
7. Opportunities for retail sales and service shall be provided.
8. Support for frequent air carrier service shall be maintained.
9. Support for more competitive electric rates shall be maintained.
10. Industry that causes pollution or has a potential for accidental pollution shall be avoided.
11. Future growth shall be guided in a manner so that public costs shall not exceed public benefits.

Environmental

Goals

1. To maintain the existing high aesthetic quality of the scenic environment which surrounds Port Lions.
2. To maintain the functional processes of the natural systems at a healthy level of productivity.
3. To maintain environmental quality and resource preservation consistent with the ability to provide subsistence use for local residents.

Objectives

1. Development which may result in increased surface or shore erosion shall be avoided.
2. Development which would produce adverse conditions resulting in changes in long shore drift, deposition or erosion shall be avoided.
3. Shore defense works shall consist of materials of compatible aesthetic merit and junk shall be avoided.

4. Multiple use docks shall be encouraged to coordinate uses and minimize the number of docks required.
5. Docks located on piling or floats shall be preferred to minimize disruption of fryling movement.
6. A buffer shall be maintained along all streams and marine shorelands.
7. Except for activities that are water dependent, all beaches shall be free from permanent development.
8. Any cutting of timber along streams shall be done by select removal methods in order to prevent erosion.
9. Development which would result in the permanent disruption, compaction or overcrowding of land surface which may adversely affect drainage or runoff shall be avoided.
10. Development which may significantly degrade water quality from leachate, phosphates, detergents, waterborne bacteria and virus or other substances shall be avoided.
11. Streams shall not be used for the disposal of storm water.
12. Development which may reduce, degrade or destroy wetlands shall be avoided.
13. Kelp and eelgrass beds shall be protected.
14. Waterfowl nesting and feeding areas shall be protected.
15. Mining and dredging shall be avoided if a potential for significant ecological damage exists.
16. Tideflats shall be preserved in their natural condition.
17. Significant shellfish areas shall be protected from development.
18. Sustained-yield timber harvest methods shall be employed to retain forests and wildlife habitat.

Lifestyle

Goals

1. To retain the small town, human-scale character of the community.
2. To provide a safe and aesthetically pleasing community in which to live.
3. To provide for recreational and cultural opportunities.

Objectives

1. The optimum size of Port Lions shall be 400 - 500 residents.
2. New housing shall be provided at a rate consistent with population growth.
3. Infilling shall be encouraged before new areas are opened for development.
4. A variety of housing shall be provided according to need and lifestyle choice.
5. Utility construction shall be implemented as a means for directing growth according to the comprehensive plan.
6. Development that will produce a significant demand for public services, such as but not limited to, fire and police protection, schools, utilities, roads or other public facilities shall be avoided unless acceptable compensation is provided.
7. New growth shall be contiguous with existing development and within the capacity to provide utilities and services.
8. Residential planning shall be oriented to avoid hazards and nuisances and capitalize on the scenic quality of the area.
9. The visual obstruction of the water from upland areas shall be limited.
10. Man-made changes in topographic, soil or geologic conditions which may endanger lives or property shall be avoided.

11. Natural amenity shall be maintained within the village area.
12. Activities which would generate noise that would adversely affect human or wildlife populations shall be avoided.
13. Excessive light or glare that would create a nuisance to surrounding neighbors shall be avoided.
14. Development which would adversely alter present circulation patterns or movement of pedestrians or goods shall be avoided unless acceptable alternatives can be provided.
15. Adequate off-street parking shall be required for all commercial and industrial uses.
16. Appropriate landscaping shall be required for all public and commercial buildings.
17. Public view points shall be established along the waterfront as part of an urban beautification program.
18. Future electric and telephone lines shall be installed underground.
19. Future development shall include the provision of recreation areas.
20. Adequate open space and recreation areas along the shoreline shall be preserved.
21. Non-buildable lots shall be made into natural parks.
22. A trail system and beach and stream access shall be provided.
23. Facilities for cultural and recreational pursuits shall be provided.
24. A parks and recreation program shall be established in cooperation with the Kodiak Island Borough.

THE PLAN

GROWTH REQUIREMENTS

Commercial

At the present time, 6.7 acres are zoned commercial. This amount of land is quite adequate for future population growth. The existing primary commercial uses, cafes and the general store, can increase their sales volume several times without having to expand floor area. Of the commercially zoned lots in the village center, very few are being used for commercial use, including several lots which are undeveloped.

The lots on which existing commercial uses are located are, for the most part, adequate for structural expansion. Furthermore, residential units in the commercial zone can be converted to commercial use, either all or in part. In the case of Port Lions, this would give the advantage to existing residents to go into business since most small enterprises will be marginal during their startup period, if not indefinitely, and most people can not afford to maintain a home and a business in separate locations. In addition, nineteen percent of the land in the existing commercial zone is vacant and open for future development. Thus, the existing commercially zoned area is quite adequate to meet the needs of a population of 580.

If commercial development is concentrated in the existing commercially zoned areas in the village center, it will prove beneficial in the following ways:

It will provide a central focal point and orientation for village growth.

It will be more convenient for shoppers to have all commercial outlets in close proximity.

It will reduce the amount of commercial-residential incompatibility, resulting from traffic, outside storage, lighting, etc.

It will hopefully support favorable scale economies that would result in more competitive prices and greater selection of goods.

Residential

City of Port Lions Resolution #97-09-R, in adopting the Revised Comprehensive Plan, referenced a shortage of available housing units. For this reason, the revised plan redesignates seventeen (17) lots in the town center from low density (single-family) to medium density (duplex) residential. Should the community desire to pursue a rezone to R2 of these lots in the future, more housing might be made available to conversion of existing dwellings into duplexes.

Industrial

There is approximately 1,485,000 square feet (thirty-four acres) zoned industrial. This area is located on the Peregrebni Peninsula and includes the city dock and has ample shoreline with deep water at low tide. The Wakefield cannery was located here before it was destroyed by fire. This area is more than ample for future marine-oriented industrial development.

Schools

School population has remained remarkably stable, and most likely that trend will continue.

TABLE NO. 9
PORT LIONS SCHOOL POPULATION

	1981	1997
ELEMENTARY	40	45
HIGH SCHOOL	20	15
TOTAL	60	60

Utilities and Streets

Future residential growth will require extended sewer and water lines and new streets. At least a mile of new utility pipes and streets will be required, possibly much more depending on the location of new housing. Industrial development on the Peregrebni Peninsula will require several thousand more feet of utility lines.

- * In addition to regular classrooms, the Port Lions School has a high school vocational education classroom and a science room and library that is used by both high school and elementary students.

LAND USE ELEMENT

The Port Lions Comprehensive Plan provides for eight basic land use classifications:

- 1) commercial
- 2) conservation
- 3) industrial
- 4) open space
- 5) marine commercial
- 6) public
- 7) residential, and
- 8) shoreline

It should be recognized that this is a general guide for development and preservation, and that the zoning ordinance will provide specific standards which pertain to lot specifications and use activities. Zoning will also be the tool for phasing development over time, in keeping with the goals and objectives of the plan, i.e. because a particular area has been assigned a land classification does not necessarily mean that it is ready for development at this time.

Commercial

Commercial has been designated for two different areas. The largest area is in the village center and is located on both sides of Main Street with the exception of the extreme three northwest lots. Two large vacant lots are located in this area and most developed lots have ample room for new structures or expansion to existing structures.

The second area is located in the Wakefield subdivision. This consists of two lots located in a vacant area between Birch and Beach streets and Cove Drive. This area is designed for convenience goods retail use to serve the residents of the Peregrebni Peninsula. To encourage commercial development in the village center and to avoid premature commercial development in peripheral locations, the Wakefield commercial area should not be opened to commercial development until approximately seventy-five dwelling units have been built on the Peregrebni Peninsula.

Conservation

More land is designated conservation within the Port Lions' city limits than any other classification. The conservation designation provides for many activities, some of which should be permitted only when compatible with surrounding land use and environmental standards. Again, the zoning ordinance is necessary to provide adequate control and safeguards.

Land classified conservation has been designated for subsistence hunting and gathering, watershed protection, recreation, forestry, mining and to serve as a buffer around the developed portion of the city. Under exceptional circumstances when growth so merits and no other alternatives are available within the existing plan designations, conservation areas may be reclassified for other land uses, when in keeping with the public interest and the goals and objectives of this plan.

Industrial

The industrial area has been established to provide for seafood processing plants, boat repair and construction yards and support facilities. The industrial area has been located on the Peregrebni Peninsula (see the economic element).

Open Space

The open space classification consists of four subset classifications: parks, greenbelts, trails and beaches. The open space classification is to provide for aesthetic protection, stream bank protection and access and recreational opportunities (see the open space element).

Marine Commercial

The marine commercial classification is to provide for the sales and service of the maritime industry, including boating accessories, fishing gear, boat and engine sales, fuel sales and bait sales.

In order to protect the fledgling commercial area in the village center, general commercial, including convenience goods, shall be prohibited in the marine commercial area. The marine commercial area has been located between the northeastern edge of the village center and the breakwater area.

Public

The public classification is for designating land to carry out the administrative and service functions of government. This includes community facilities - cemetery, solid waste sites, fire station, school sites, etc. - and the city hall maintenance garage. Government owned utility facilities also fall under this classification. Some of these facilities, such as utility structures and fire stations can be located in other land use classified areas, according to service needs. The burden of perimeter transition, i.e. landscaping, buffering and planting, shall rest with government.

Residential

The major existing residential area is located in the village center. Most of this area is developed. A number of lots have not been built on yet and some of them are not developable. With redesignation of 17 lots in the town center from low density (single-family) to medium density (duplex) residential, a foundation is laid for limited population infill that might create additional housing units without the need for expansion of existing services. Several lots are still available in the Ptarmigan subdivision, and a platted area exists to the north and south of the school grounds (fifteen and twelve lots, respectively) which is not yet serviced with utilities, nor is access available in the case of the latter.

The major area for future residential growth, however, exists on the Peregrebni Peninsula. The Wakefield subdivision, which is fully serviced, exists here and an adjacent area has been designated residential that can accommodate approximately forty to fifty single-family lots.

In keeping with the community's values to retain its existing size, yet still be able to attract industry, which will mean more growth, the priority for future residential development will be placed on the Peregrebni Peninsula. With the majority of new residential development occurring on Peregrebni, the existing residential area within the village center would not have to expand. Residential development on Peregrebni would be very convenient to the industrial area, yet still be buffered by a large community park.

Port Lions is designated primarily to be a single-family residential community; however, multi-family housing is permitted within the residential area and is so indicated on the following map. Multi-family development shall be considered in keeping with the requirements of street capacity, off-street parking, buffering and view rights.

The amount of land and the timing of development for residential use is largely in the hands of the City of Port Lions, since the City has control over the utilities and owns much of the undeveloped platted land or land adjacent to utility serviced areas.

Shoreline

The shoreline classification is designed to retain the shoreline of Port Lions as a public resource, providing for pedestrian and boat access, ensuring aesthetic quality, ensuring the functional processes of the natural systems and preventing uses that are not water-dependent. The shoreline classification area extends from the mean high water line (MHHW) to the mean low low water line (MLLW) and includes all of the marine shoreline within the City of Port Lions except the shoreline adjacent to the industrial area.

The shoreline is the single more important physical characteristic of Port Lions and serves to set the basis for the high aesthetic value found there and is also an integral part of the local culture. Therefore, all development within the shoreline area shall be regulated by a conditional use permit, in keeping with the public interest.

TABLE NO. 10
LAND USE CLASSIFICATION/USE SUMMARY

USES	COMMERCIAL	CONSERVATION	MARINE CONSERVATION	INDUSTRIAL	OPEN SPACE	PUBLIC	RESIDENTIAL	SHORELINE
Retail	•							
Mining		•						
Watershed		•						
Forestry		•						
Subsistence hunting/gathering		•						•
Recreation		•			•			•
Marine accessories			•					
Fishing gear			•					
Boat and motor sales			•					
Fuel sales			•	•				
Bait sales			•	•				
Seafood processing				•				
Boat repair/construction				•				
Storage area				•				
Fuel storage				•				
Parks					•			
Greenbelt					•			
Beaches					•			•
City administration/maintenance						•		
School						•		
Library						•		
Fire station				•		•	•	
Solid waste site						•		
Cemetery						•		
Air strip						•		
Single-family							•	
Multi-family							•	

OPEN SPACE ELEMENT

Open space is an integrating characteristic of the fabric of the Port Lions environment. Open space consists of five sub-elements: parks, greenbelts, trails, beaches and recreation areas.

Parks

Parks include both neighborhood and community parks. The neighborhood park is designed to serve residents of the immediate local area and can include active areas, such as playgrounds, and passive sitting and viewing areas. There are four neighborhood parks included in the plan. Only one of these, Boskofsky Park, is developed, Pestrikoff is proposed and the remaining two are proposed sites which are indicated by numbers on the map.

The plan includes five community parks. These are set aside to serve the entire community and are designed to remain in a relatively natural state. Only Peregrebni Park has been officially established as a park. The proposed Agick Park includes a two-acre pond and is located outside the proposed city boundary, northeast of the air strip. The proposed Noya Park represents the area located between the mouth of the unnamed stream at the head of Settler Cove and the state road. The rifle range, which is used by the entire community, was developed by the Port Lions school officials on ten acres of land owned by the Afognak Native Corporation. Community park No. 1 (proposed) is located north of the entrance of the causeway and west of Beach Drive. This park site, located on Settler Cove, has been designated as a community picnic and group gathering area. Community park site No. 2 encompasses both sides of the State Road at the south end of Wakefield subdivision. This site borders both Settler Cove and Kizhuyak Bay, this latter side providing access to two excellent low energy beaches.

Greenbelts

Greenbelts are designed to retain the natural, aesthetic character of the shoreline, provide protection from erosion, provide the opportunity for passive recreation and provide access to the water. No permanent structures can be erected within the greenbelt and no more than fifty percent of the mature vegetation, on a select rather than a clear cut basis, can be removed.

There are four greenbelts indicated in the plan:

1. Both sides of the Port Lions River for a depth of 100 feet paralleling the normal high water mark from the mouth of the Port Lions River to the city boundary. In 1994, at the request of the Port Lions City Council, two tracts totaling 9 acres along the Port Lions River were rezoned to NU-Natural Use.
2. Both sides of the Branchwater Creek for a depth of 100 feet paralleling the normal high water mark from the confluence with the Port Lions River to the city boundary.
3. Both sides of the unnamed creek at the head of Settler Cove for a depth of 100 feet paralleling the normal high water mark from the State Road for a distance of 500 feet.
4. The fourth greenbelt extends along the entire marine shoreline within the city boundary, with the exception of the commercial area and the industrial area. This greenbelt extends from the MPH line for a depth of fifty feet, with the exception of the unplatted area of the Peregrebni Peninsula where the depth extends for a distance of fifty feet or to the twenty-five foot elevation contour line, whichever is the greater distance.

Beaches

All of the marine shoreline (see shoreline classification under the Land Use Element) has a potential for recreation. However, certain beaches are rather uniquely suited for sunbathing, wading and general relaxation and are particularly attractive to most persons. These beaches are low energy, low profile gravel beaches. There are three areas where there are extensive stretches of this type of recreation beach. They are located along the waterfront area adjacent to the commercial area, on Kizhuyak Bay and at the north end of Peregrebni Park.

Trails

There are eleven different trails of various lengths and purpose identified in the plan. They fall into three groups: 1) trails providing access to the shoreline, 2) trails providing access to

points of interest outside the city boundary and 3) trails that parallel the shoreline.

Recreation Area

A recreation area of 9600 acres owned by the United States government and the Afognak Native Corporation has been identified by the residents of Port Lions as a significant area containing several lakes and extensive brush land. This area is used for hunting and snow machine running.

School

Not under the city administration, but never-the-less an important recreational facility, are the grounds associated with the Port Lions elementary and high school. This facility includes playground equipment and a softball diamond. In addition, the school administration conducts an adult indoor recreation program, utilizing the school's gymnasium for basketball and volleyball.

CIRCULATION ELEMENT

The circulation system in Port Lions is well developed. The State Road serves as the major arterial that links the various parts of the village together. This road runs from the air strip through the village center around the head of Settler Cove to the Peregrebni Peninsula and the City dock. Main Street, location of the commercial area, is a major collector for most of the residential streets in the village center. Future commercial development along Main Street should be required to provide adequate off-street parking to avoid traffic congestion and a safety hazard.

In a few locations, streets have been platted but not developed, principally Alder Drive and the upper portion of Rainbow Street. Future residential street development, predicated on industrial growth, should be directed to the residential area on the Peregrebni Peninsula. Street alignment to the future development area on Peregrebni shall be determined at the time the plat plan is approved.

A platted street paralleling the waterfront and the commercial area in the village center, known as Marine Street, is no longer feasible to be considered a potential street, since the area has experienced substantial shore erosion and is under water at high tide.

ECONOMIC ELEMENT

The City of Port Lions offers an opportunity for the location of a seafood processing industry, with an ample supply of developable land, a deep water commercial dock, utilities and domestic support services. Of equal importance is the attitude of the local residents, who would welcome the addition of a major seafood processing firm, and the city officials who have been providing a capital improvements in anticipation of such industry.

Competitive Advantages

Port Lions is strategically located in one of the world's most productive seafood regions. Thousands of square miles of fishing grounds are found within easy boating distance - the lower Cook Inlet, Shelikof Strait and the Gulf of Alaska. The salmon and crab fisheries are major existing industries, but another industry that has the potential to meet or exceed the salmon industry is bottomfish. Nine species of commercially important bottomfish are in close proximity to Port Lions.

Potential domestic and world demand exist at the present time, and during the coming years this demand is expected to increase substantially. Located closest to the fishing grounds, Port Lions has the most favorable location of all the cities and villages of south central Alaska for developing as a bottomfish port.

In addition to bottomfish, Port Lions holds other advantages in respect to salmon and crab fishing. Fishing boats from the lower Cook Inlet or the Shelikof Strait would not have to pass through the treacherous Ouzinkie Narrows and Spruce Cape, which is especially dangerous for fish laden vessels enroute to Kodiak. Often boats are required to wait for calmer waters, which can result in dead loss of the catch. The fuel and time savings would also be substantial.

Timber harvesting is another industry which has achieved a higher degree of prominence in recent years. Port Lions supplies supplemental labor force for logging activities on Afognak Island. Potential timber resources surround the city on native corporation land.

Industrial Park Area

One of the most attractive features of Port Lions is the 53.5 acre tract that has been set aside as an industrial park. This area is undeveloped, but the State road passes through it, providing access to the City dock, residential and commercial areas of Port Lions and the air strip. A substantial portion of the industrial park site is less than four percent grade. It is buffered from other development by a fifty-five acre natural park, which is owned by the City. Adjacent to the natural park is a sixty-five acre parcel that is zoned residential and is being held for future residential development, and next to the natural park is an existing, fully serviced, residential area of which less than half of the lots have been developed. The latter area is within 800 feet of the industrial area, at the nearest point.

There are numerous facilities that have already been developed and are under City ownership. The most obvious of these is the 21,000 square foot dock, which is extended to forty-two feet MLLW. It is this dock that is used by the ferry Tustumena, thus, providing on-site access for freight delivery including sea-van cargo containers. Fuel can be pumped from the dock for fishing boats, and oil can be made available to industry on a metered basis. Tankers provide direct service to the City dock (Source: 11).

Utilities

The City of Port Lions has adequate utilities for servicing industrial development. The water system consists of an integrated 150,000 gallon reservoir, 125,000 gallon water storage tank and an eight inch line that crosses Settler Cove to the Peregrebni Peninsula. This line serves the Wakefield subdivision and comes within 1,800 feet of the industrial park area. A four inch water line, designed to provide 600 gallons per minute connects with the system and extends within the industrial park area.

An eight inch sewer line serves the Wakefield subdivision and comes within 2,000 feet of the industrial park area. A 2,000 foot outfall extends into Kizhuyak Bay. A separate sewage system could be arranged for the industrial park area.

Power

Kodiak Electric Association (KEA), a cooperative that serves Kodiak Island, provides power to Port Lions.

Community Facilities

Within the City of Port Lions are found retail services, a post office, elementary and high school, churches, library, fire station, clinic, a 2,600 foot air strip, earth station telephone transmission and cable television. There are several city-owned parks, numerous natural beaches, trails into the wilderness and ample opportunity for hunting, fishing, hiking, snowmobiling and cross country skiing.

Labor Force

Most of the adult population of Port Lions is experienced in fishery or cannery work. A substantial portion of the population finds only seasonal employment. With logging activity at Danger Bay on Afognak Island, many find supplemental employment there loading the log ships periodically, based on scheduling.

A large percentage of the young people leave Port Lions after graduating from high school, due to lack of local employment opportunities. Many of these people, as well as friends and relatives of existing residents, would return to Port Lions if the employment base would expand. This fact was particularly emphasized with the interest shown partially by nonresidents when new housing became available. Should a seafood processing industry locate in Port Lions, it would attract labor from far beyond the immediate locale.

Fishing Fleet

The Port Lions resident fishing fleet currently numbers around fifteen boats of the thirty to forty foot size range equipped to fish for both salmon and crab. In addition, numerous individuals fish for salmon and halibut from skiffs. With the opening of the small boat harbor behind the breakwater in Settler Cove and the crowded conditions at Kodiak, more boats will be making Port Lions their home port. If a seafood processing facility should locate on the Peregrebni Peninsula, there will be room to accommodate the additional boats that would be attracted.

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CITY OF PORT LIONS
Capital Improvement Program
FY 1999-2003

I 1-14

I-1 PORT LIONS CITY WATER DAM

\$ 750,000

The City of Port Lions has been informed that the existing water supply collection dam needs to be replaced. The Port Lions City Council has estimated the cost of this facility to be in the neighborhood of \$800,000. The estimated cost will include a new dam on Branchwater Creek which will have a holding capacity of 500,000 gallons to be reserved for the city water system. With a facility this size, the City Council feels that the well-being of the community of Port Lions would be better able to cope with emergencies such as fires and tsunamis. The existing dam was constructed as a temporary measure approximately 30 years ago. The City of Port Lions has received funding for the project in the amount of \$47,400 from the Municipal Capital Project Matching Grant Program.

I-2 PORT LIONS SOLID WASTE DISPOSAL SITE

\$ 250,000

The existing solid waste dump site has been in operation for over twenty years and is in need of improvement. The unfenced site is a bear attraction and a community eyesore. Indiscriminate dumping by the residents is a common practice used to avoid encounters with bears. Lack of cover material at the existing site has left much of the refuse material without proper cover or organization. The present condition of the dump could be considered a health hazard to the residents of Port Lions.

Several different solid waste disposal alternatives were compared and evaluated. Centralized collection and proper disposal at a landfill was selected as the method of choice. Six potential landfill sites investigated. Four of the sites were eliminated from consideration due to obvious conflicts with private property and proximity to salmon streams and the state airport.

Based upon this analysis, the recommended solution to the Port Lions solid waste disposal problem is the closing of the existing dump and construction of a new sanitary landfill adjacent to the existing dump site. This site would be tied into the main road that connects the city with the airport. Encounters between bears and humans could be greatly reduced by using a central collection system and by covering the refuse more frequently inside the fenced facility. The estimated cost of this project is \$350,000. The City of Port Lions received \$100,000 for FY 94, which leaves a balance of \$250,000 to complete the improvements to our solid waste disposal site.

I-3 PORT LIONS CITY EQUIPMENT

\$ 350,000

The City of Port Lions provides for maintenance, snow removal and repair of local roads, state roads and airport, city utilities, and construction of new capital projects. The City's current stock of heavy equipment used to provide this maintenance is in need of replacement. The tracked backhoe is unserviceable, the tracked excavator has less than half of its original power and is deteriorating, and the front end loader is nearing the end of its useful life. The City would like to purchase a new wheeled four wheel drive backhoe to replace its old tracked backhoe, a new tracked excavator, and a new front end loader. This new equipment would ensure that the City's ability to continue to provide necessary road and utility maintenance and would also assist in capital construction projects.

I-4 PORT LIONS PUBLIC SAFETY BUILDING

\$ 800,000

The City of Port Lions has found that there is no longer proper facilities available in the community for the Village Public Safety Officer (VPSO) Program. The City has identified the need for a public safety building which will include the Port Lions Fire Department, VPSO Office, VPSO living quarters, adequate holding facility, conference/meeting space for training, and equipment and apparatus storage space for the fire engine, ambulance, and other public safety search and rescue related equipment.

The basis for the design of this new facility will be the Bayside and Women's Bay Fire Departments constructed by the Kodiak Island Borough.

The Port Lions City Council has estimated the cost of this new facility to be \$800,000.

I-5 PORT LIONS WATER MAIN TO SMALL BOAT HARBOR

\$ 700,000

The Port Lions Small Boat Harbor has been fully operational since July 1, 1984. Although an access road has been built and telephone and electrical service is currently provided to the harbor, there is no fresh water available at the harbor site. The nearest City water main is one mile from the boat harbor. This project will provide approximately one mile of 6 inch ductile iron water main to the Port Lions Boat Harbor. This will not only provide fresh water for 50 vessels but will also allow for proper fire protection for the entire boat harbor area.

The proposed cost estimate of \$750,000 is based upon a recently completed water main system within Port Lions. The City of Port Lions received \$24,994.39 in FY 96 to do a cost estimate and feasibility study for this project which leaves a balance of \$700,000 for FY 98.

I-6 PORT LIONS OUTER BREAKWATER STUB

\$ 3,000,000

When the U.S. Army Corps of Engineers constructed the first breakwater in Port Lions in 1981, everyone told the Corps of Engineers that their design would not work. Just over four months after the Army Corps of Engineer's contractor completed the breakwater, it was destroyed by a northeasterly storm.

In 1983, the Corps of Engineers had the Port Lions Breakwater rebuilt, using a design the Port Lions City Council did not agree with. Since then, the new Port Lions Small Boat Harbor has experienced problems with swell and wave action inside the harbor area, which has led to substantial damage to the inner harbor facilities, specifically the float system.

Due to the Army Corps of Engineers design of the breakwater at Port Lions, the City of Port Lions has found that almost one-half of the inner harbor floats cannot be used for moorage except in the summer months. The only solution is to construct an additional outer breakwater northeast of the existing breakwater, thus creating a true protected small boat harbor.

Estimated cost by the Corps of Engineers for a 125 foot "Outer Breakwater" will be \$3,000,000.

I-7 PORT LIONS CITY LIBRARY

\$ 150,000

The present Port Lions library is housed in a facility the was brought to Port Lions in 1965 to be used as a storage shed during the post-earthquake reconstruction of the community. It is now the oldest building in the community and is badly deteriorated. The cost of repairing and remodeling the building would be less cost-effective than constructing a new library. The old facility is also too small to accommodate the books it now houses. The City of Port Lions supports the Port Lions Library Committee in recognizing the need for a new library building for supporting and educating its community members.

I-8 PORT LIONS ROAD EXTENSIONS

\$ 1,150,000

All residential and commercial dwellings front these platted roads, yet all existing roads are only eight to ten feet wide. The top surface layer of existing City roads has eroded away and some culverts and drainage areas are almost level with the road surface in numerous places. During the rainy periods, run-off washes across the roads. In winter, this condition leads to glaciated ice on the road which makes driving extremely hazardous. The City, using Municipal Aid funding during the early 1980's, began correcting the most serious drainage problems. However, road reconstruction must be completed within the next three to five years. The following is a prioritized list of roads needing to be rebuilt and/or extensions which need to be completed.

A. Main Street - 1,500 feet (Port Lions Subdivision)

A heavily used street with serious drainage and pot hole problems. The commercial district on Main Street includes the Port Lions Community Store, Driftwood Cafe, U.S. Post Office, Port Lions Lodge, Surfstrider Enterprises, R.A.K. Outfitters and the Lions Den Lodge, with their access fronting this street. The entire community utilizes Main Street every day. The City of Port Lions is looking forward to improving this street with construction funding from the State of Alaska.

B. Spruce Drive - 1,800 feet (Port Lions Subdivision)

The Community Hall, Village Public Safety Office, and Library all border Spruce Drive. Extension of this road from the intersection of Hillside Drive to Bayview Drive will allow a secondary access to third subdivision. Drainage and resurfacing of the existing portions of Spruce Drive are in need of immediate attention. Spruce Drive is a "feeder" road from the state road and subdivisions to Main Street.

C. Birch Drive - 1,200 feet (Port Lions Subdivision)

Birch Drive is a narrow road bordering many existing residences. This road needs extensive repair to the drainage and culverts. The intersection of Birch and Main needs to be completely rebuilt with proper drainage and culverts. This narrow road provides direct access to Main Street from the third subdivision.

D. Birch Street - 1,800 feet (Port Wakefield Subdivision)

This road is less than eight (8) feet wide throughout its length. The road meanders in and out of the surveyed right-of-way, which must be straightened. The Kodiak Island Borough provided detailed survey and design work for this road. Construction must be provided prior to use of the existing residential and commercial land which fronts this road. Access to Beach Drive and Cove Drive from the state road is via Birch Street.

E. Beach Drive - 750 feet (Port Wakefield Subdivision)

This road can service up to three (3) residences or serve as a mobile home park with City services of water, sewer, garbage and road maintenance. However, this road suffers from drainage and hazardous glacier problems in the winter months. The road is extremely primitive and does not meet current fire equipment access codes. Design and engineering has been completed by the Kodiak Island Borough's engineering department.

F. Cove Drive - 300 feet (Port Wakefield Subdivision)

Cove Drive is a small road connecting Beach Drive and Birch Street which is also extremely primitive and does not meet the current fire equipment access codes. This road needs to be widened and straightened within the surveyed plat. Design and engineering has also been completed by the Kodiak Island Borough's engineering department.

I-9 PORT LIONS HARBOR BUILDING

\$ 75,000

In 1987 the Kodiak Island Borough donated a 40' x 60' building to the City of Port Lions as a temporary classroom. A new school has been constructed and the temporary classroom is no longer needed. The building has since been moved to the Port Lions Harbor to serve as the Harbor Master Building. The building was set on a foundation ten feet above the ground, creating a basement. In addition, 12 storage stalls have been constructed for commercial fishermen which will provide revenue to the city.

The building needs additional work to upgrade it including a new roof, new siding, windows, and exterior doors. The interior needs carpeting, paneling, ceiling tile, insulation, new plumbing, and new wiring.

The City of Port Lions will provide labor on this project. The needed funds are estimated at \$75,000 for materials.

I-10 PORT LIONS SUBDIVISION

\$ 300,000

The City of Port Lions, like all Alaskan municipalities in recent years, has been experiencing an annual decrease in Revenue Sharing and Municipal Assistance from the State of Alaska. To help make up for this shortfall, the City of Port Lions began selling residential lots in 1991. To continue this program of fiscal self-help, the City would like to open a new subdivision on a south facing slope at the edge of town on Kizhuyak Drive. A 300 foot extension of Rainbow Street and 1200 feet of new road on Kizhuyak Drive would open lots 10-19 in Block 13 of the Port Lions Subdivision, First Addition. These ten lots are about three quarters of an acre each in size and were surveyed and platted in 1968. Because of watershed restrictions and sewer engineering problems, this is the only realistic area of growth currently available to residents of Port Lions.

The cost of this new subdivision project would be \$100,000 in FY 98 for preliminary work, \$100,000 in FY 99 to finish the road construction on Rainbow Street and Kizhuyak Drive, and \$100,000 in FY 2000 for water and sewer service.

I-11 PORT LIONS DRY DOCK FACILITY

\$ 650,000

A large fishing fleet exists in the Western Gulf of Alaska which needs major and minor repair work accomplished in the area. Many vessels travel as far as the Seattle/Tacoma area to have these repairs done. Although there is a small private haul out facility in Kodiak, it is always full and scheduling for vessel repairs is close to impossible. The closest alternative in the Western Gulf is Seward which is 300 miles north of Kodiak Island.

The City of Port Lions proposes that a boat storage and haul out facility can easily be located at the Port Lions Small Boat Harbor. This facility will consist of a moving trolley hoist which will lift the vessels out of the harbor. The vessels will be placed upon a cradle on the landfill area of the Small Boat Harbor. This boat storage and haul out facility will accommodate vessels up to a size of sixty feet and enable repairs to be made without having to deal with tides which occur when moored to a gridiron. Eighty percent of the vessels that operate in the Western Gulf could be accommodated by this facility.

The benefits of providing a boat storage and haul out facility for vessels that operate within the Western Gulf of Alaska are unlimited. Older wooden vessels can be placed out of the water for major hull repair and winter storage. Vessels that need a haul out facility for hull repairs will not have to travel many miles out of their way to accomplish repairs. The fishing industry would benefit from this facility by having less "down time" during short, yet critical fishing seasons and areas.

The estimated cost including land preparation and all equipment for this type of facility is \$650,000.

I-12 PORT LIONS COLD STORAGE FACILITY

\$ 250,000

With the completion of the Port Lions Small Boat Harbor in July 1984, the City of Port Lions has seen increased fishing activity and floating processors operating at the Port Lions City Dock facility. Currently, there is no cold storage available in Port Lions to attract increased fishing ventures.

The proposed Cold Storage Facility will be situated near the City Dock to support the increased fishing activity. This will also provide revenue for the entire harbor complex.

The projected cost is approximately \$250,000 for 1,200 square feet which will allow the necessary space for fisheries activities in the Port Lions area.

I-13 PORT LIONS HARBOR SKIFF AND TRUCK

\$ 75,000

When the Port Lions Small Boat Harbor began to operate fully in 1984, it became apparent that certain start up equipment would be required to maintain a safe harbor which would operate properly. The Harbor and Ports Department identified the need for a small skiff, trailer, and 4X4 truck for the proper maintenance and operation of the Port Lions Small Boat Harbor. With the limited budget and extremely high start-up costs related to the new harbor, the City has not been able to provide these equipment items.

I-14 PORT LIONS WAREHOUSE

\$ 150,000

The City of Port Lions has a critical shortage of warehouse space for the storage of commercial fishing gear. The City currently operates two warehouses for this purpose which are full to capacity. A new building is needed to address this storage shortage. The new facility would bring in additional revenues into the City from storage charges.

