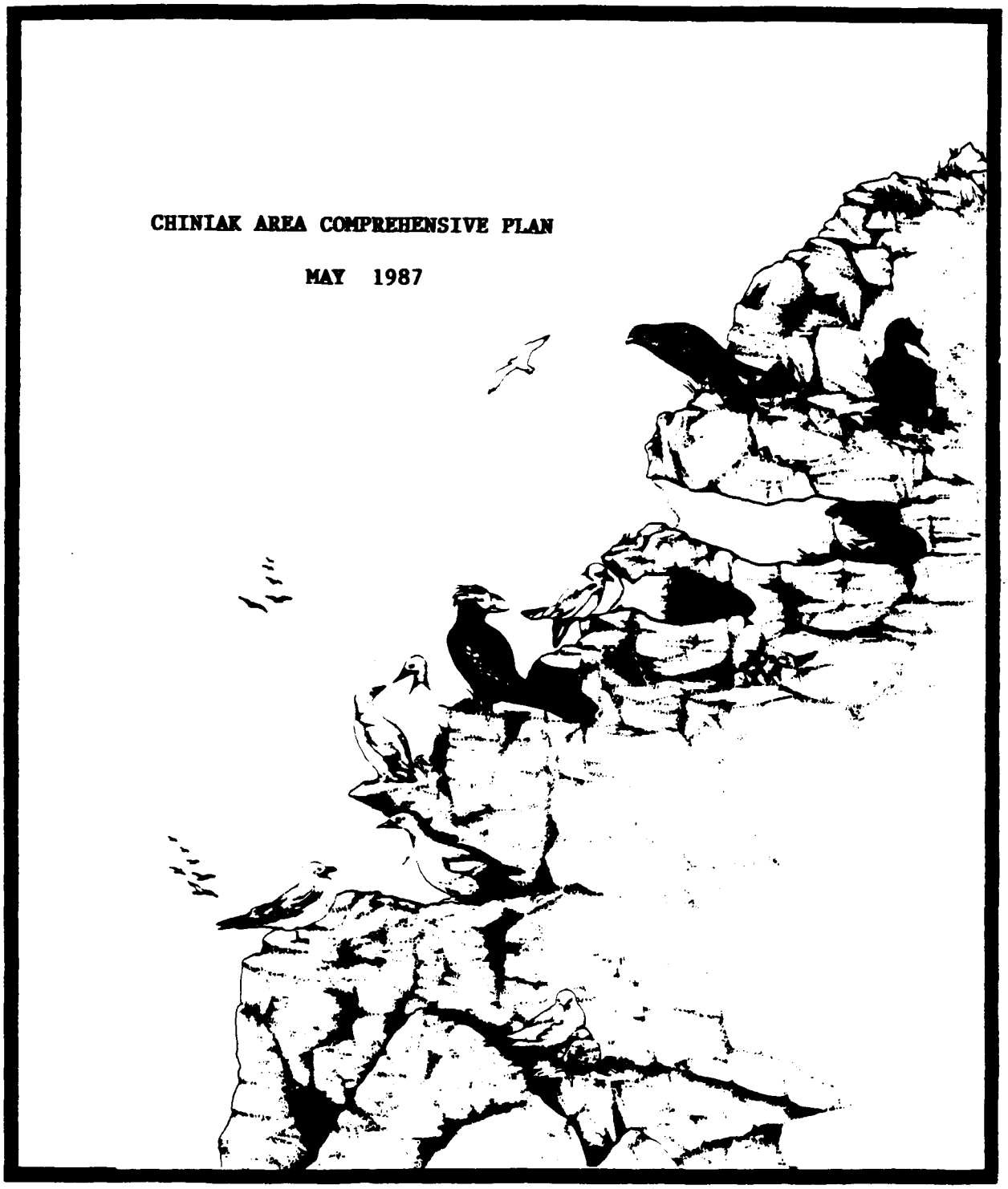
CHINIAK AREA COMPREHENSIVE PLAN

MAY 1987



PREPARED BY THE CHINIAK COMMUNITY FORUM AND

THE KODIAK ISLAND BOROUGH COMMUNITY DEVELOPMENT DEPARTMENT

KODIAK ISLAND BOROUGH
ORDINANCE NO. 87-22-0

AN ORDINANCE OF THE KODIAK ISLAND BOROUGH ASSEMBLY AMENDING CHAPTER 17.02, COMPREHENSIVE PLAN, OF THE BOROUGH CODE, INCORPORATING THE CHINIAK AREA COMPREHENSIVE PLAN.

WHEREAS, the Kodiak Island Borough has responsibility for land use planning throughout the Borough; and

WHEREAS, the Chiniak Community Forum in conjunction with Borough staff has prepared a "neighborhood" land use plan for Chiniak; and

WHEREAS, after extensive public participation in the preparation of the plan, and a formal public hearing before the Planning and Zoning Commission on May 20, 1987, the Commission has recommended adoption of the plan by the Assembly.

NOW, THEREFORE, BE IT ORDAINED by the Kodiak Island Borough Assembly that:

Section 1: The document entitle Chiniak Comprehensive Plan, May 1987, is hereby adopted and incorporated into the Kodiak Island Borough Comprehensive Plan.

Section 2: That Chapter 17.02, Comprehensive Plan of the Borough Code, is hereby amended by adding the following:

17.02.030 Comprehensive Plan. For the purpose of this Title the Kodiak Island Borough Comprehensive Plan consists of the following adopted documents:

0. Chiniak Comprehensive Plan. Prepared by the Kodiak Island Borough and the Chiniak Community Forum, dated May 1987.

Section 3: This ordinance shall be in full force and effect upon passage and adoption.

PASSED AND APPROVED THIS 7 DAY OF July, 1987.

KODIAK ISLAND BOROUGH

BY _____
Jerome Selby, Borough Mayor

BY _____
Lorne White, Presiding Officer

ATTEST:

BY _____
Kaye Vaughan, Borough Clerk

First Reading, Approval Date: 4 June 1987
Second Reading, Public Hearing, Approval Date: 7 July 1987
Effective Date: 7 July 1987

Distribution List: Community Development Department

ACKNOWLEDGMENTS

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INTRODUCTION

The Chiniak area has developed significantly since the adoption of the 1968 Kodiak Island Borough Comprehensive Plan. The 1968 Plan did not adequately address the Chiniak area. In fact the only reference to Chiniak in the Plan states the "Chiniak Air Force Station is located 16 miles southeast of Kodiak by air or about 45 miles by road. About 120 personnel were assigned to the station at the end of 1967. Of these, approximately 30 personnel lived in the Kodiak Urban area with their dependents, and about 8 lived along the Cape Chiniak Road within 10 miles of the station. As in the case of the Naval Base, facilities requirements of the station are not included in this plan." (Source 5)

In July of 1982 a community group, concerned about possible land use development in Chiniak, established a planning group. This group worked intensively to prepare the "Chiniak Area Plan." The draft plan was distributed in February of 1983 and public hearings on the draft plan were held in Chiniak and the City of Kodiak in March of 1983. As a result of these public hearings, the Kodiak Island Borough Planning and Zoning Commission recommended that the Kodiak Island Borough Assembly adopt the Chiniak Area Plan. At their April 1983 meeting, the Kodiak Island Borough Assembly "moved" that the Plan "be sent back to the Planning and Zoning Commission and the Chiniak Community for review and revision." No further work was completed on the Plan.

In 1986 a group of Chiniak residents (i.e., the Chiniak Community Forum) concerned about the need for an updated land use plan, again undertook the task of developing a comprehensive plan to help guide local government decision-makers.

This Comprehensive Plan for Chiniak has been developed primarily through the efforts of these and other Chiniak residents. Calling themselves the Chiniak Community Forum Planning Group, and with assistance from the Kodiak Island Borough Community Development Department, they have devoted time and energy to the preparation of this plan.

The purpose of this plan is twofold. First, to establish goals and objectives for the Chiniak area that will be used as a basis for future land use decisions in the area. Second, to recommend changes to Kodiak Island Borough ordinances and to encourage specific actions by government agencies to ensure that these goals and objectives are met.

The Chiniak Comprehensive Plan consists of several sections. These include: Description of the Planning Area, Characteristics of the Planning Area, Issue Identification, Goals and Objectives, The Plan, and Implementation.

This document includes one appendix which contains the results of a survey of property owners in the planning area.

For the purpose of this plan, the Chiniak area is defined as the area along the "Chiniak Highway;" from and including Thumb's Up Bay (or Rocky Bay) to the entrance of the old "Air Force Tracking Station," (including the Chiniak River). The area's width is from the ocean inland to the Section line between Township 29 South and Township 30 South, Seward Meridian.

DESCRIPTION OF THE PLANNING AREA

In 1983, the draft Chiniak Area Plan included an area of approximately 20,400 acres. Some concern was expressed at the time about the large amount of acreage included in the plan. Partially as a result of this concern, and the desire to focus planning efforts on the more developed areas of Chiniak, the planning area has been reduced.

The boundaries of the Chiniak area for the purposes of this plan are defined as:

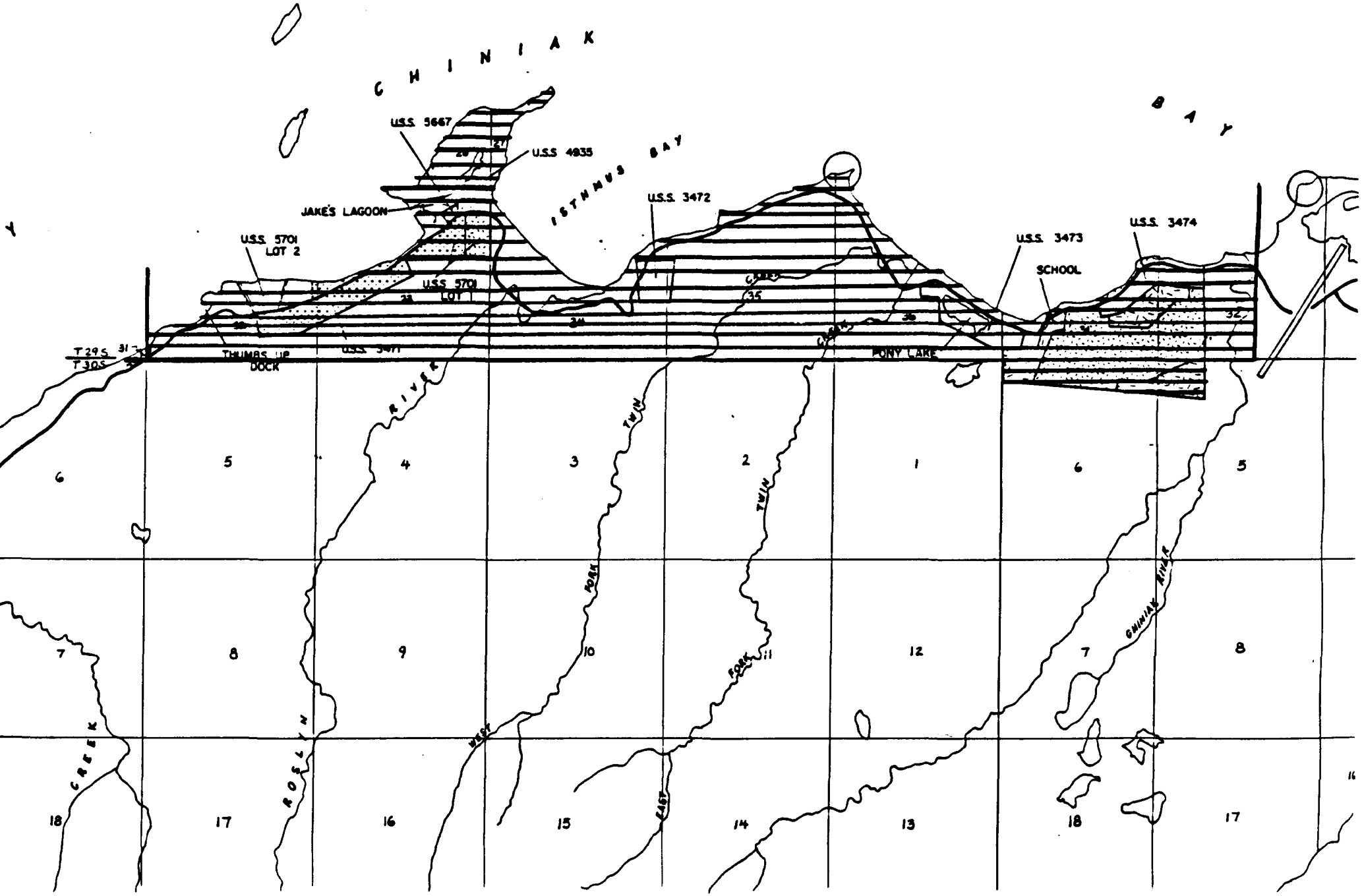
> The area between and including Thumb's Up Bay (or Rocky Bay) and the gates to the old tracking station including the Chiniak River (generally east to west); and from the shore inland to the Section line between Township 29 South and Township 30 South, Seward Meridian (including the Chiniak Subdivision of the Kodiak Island Borough). In terms of size, this area is approximately 2,688 acres or 4.2 square miles in size.

This planning area includes the new powerline easement (and land some distance on either side of it) as the powerline has direct impact on the potential for development in Chiniak. The area also includes the Chiniak River which has traditionally been considered part of the community, and has implications for future development in the vicinity.

Some portions of the plan relate to areas or "facilities" outside the defined planning area. These areas and/or facilities are addressed in the plan because they relate directly to the development and/or interests of Chiniak residents.

For example, recommendations are made about the Chiniak Highway beyond the planning area boundaries.

MAP 1 CHINIAK PLANNING AREA



CHARACTERISTICS OF THE PLANNING AREA

A. AREA HISTORY/ECONOMIC CONTRIBUTION *

The Dictionary of Alaska Place Names (1971) contains the following entry for Chiniak:

"Former Eskimo Village reported by Ivan Petroff in the 1880 Census."

Prior to World War II, there were only trails from the Olds River to Chiniak. In 1942, the U.S. Army Corps of Engineers surveyed the present road and were the architects of the rather complex military installations scattered throughout Chiniak. Actual construction of the entire complex was done by civilians working round-the-clock. According to Hank Eaton, who was in the Quarter Master Corps and responsible for the daily ration reports, there were between 7,500 and 8,000 Army Troops stationed at the Kodiak complex.

In the early 1950's, the Alaska Road Commission and the Bureau of Public Roads maintained a small camp just south of Frank Creek to help work the roads leading to Chiniak and Pasagshak. Towards the late 1960's, Smokey Stover was the foreman of the road camp and the crew included Jim Garoutte, Ray Monigold and Leigh Niblock.

In 1954, the U.S. Naval Security Group (Communications Security) moved from Bells Flats to Chiniak (Little Navy). Enlisted men built the log cabin on Chiniak Lake during their off-hours as a recreation cabin.

* Thanks to Chiniak resident, Bill Kirk, for his efforts in largely preparing this section of the Plan. Additional information was submitted by Vince Walser, other planning committee members, and obtained from Source 2 (bibliography).

In 1956, the U.S. Naval Station Kodiak personnel and their families were allowed to occupy the quonset huts adjacent to the Miller Field recreation area.

Also in 1956, the U.S. Air Force started construction of the Advance Communication and Warning Site. Two years later, it was decided to convert the AC & W Site to a deep space tracking station. The mission of the Tracking Station was to collect and record tracking and telemetry data.

In 1960, the Tracking Station became operational. It was provided technical and maintenance support by 121 civilians. Two (2) U.S. Air Force officers performed the command function. None of these men were allowed to have their families in Chiniak.

On March 27, 1964 an 8.6 (Richter Scale) earthquake and tsunami hit Alaska and Kodiak. The N.E. end of Kodiak Island sank 5 1/2 feet. The Chiniak Road was virtually impassable. Naval families could not get to their recreation quonsets, so the Tracking Station personnel took advantage of this and chartered sea planes to fly their families in and started occupying the quonsets.

In 1965, the U.S. Navy ordered all families out of the quonset area. Later that year, the village of Chiniak was born. The only families living on the road system at that time were Omar Stratman at Mile 30, Jake Blank and Clayton Parker at Mile 36; Dave Henley had workers living at his sawmill at Mile 36.2 (the current Lucas residence); Gale & Hope Carrithers at Mile 40; and Walt Dixon at Mile 42. The Carrither's place was the first patented property on the Chiniak Road.

In 1969, the Hudson's Electric Company started serving the community. Dave Hudson owned and operated the business. He was assisted by Steve Alvine, who did much of the maintenance work. At it's peak, Hudson's Electric sold power to 55 customers. This service was discontinued on July 1, 1974.

In May 1970, the Cross Country Race from Miller Field to the Harbor Masters Building in Kodiak was added to the Kodiak King Crab Festival's activities. This first race was won by Chad Ogden, a high-school aged Chiniak resident. Chad died that summer and the race was subsequently named the Chad Ogden Memorial Race. Also that summer, Spahn's Snack Bar/General Store and Gas Station opened for business at the Cliff House at Mile 42.

In August 1971, Chiniak's first permanent Grade School was born. Two double-wide trailers were installed across from where the current community library stands at Mile 41 with an enrollment of 35 students. Ivan Gilliam and Moonyeen Lindholm were among the first teachers. Since 1965, school had been conducted at the Little Green School House located at Little Navy. Fred Zharoff, one of the first teachers, taught there for three years, followed by Sally McCall and Ivan Gilliam.

In September 1971, John Morse of the Chiniak Tracking Station started the first Boy Scout Troop in Chiniak with 9 local boys. The Chiniak Home and School Association held its first meeting and Donna O'Neil was elected the first Chairperson. The primary purpose of this association was to raise money to improve the condition and uses of the school. The Chiniak Home and School Association provided support for the school by supplying library books and carpeting for the school floor.

Later that Fall, school bus service was started. Jack Durham of Mile 35 was the first bus driver.

In November of 1971, the Chiniak Advisory School Board was formed with Bob Snyder, Mildred Walker and John Morse as members. The Chiniak Volunteer Fire Department was also formed, with 37 volunteers. Total equipment included an old boat trailer (to haul 30 lb. CO2 bottles), a siren mounted on a pole at Bob Spahn's, CB radios and personal vehicles. Dutch Myers was elected Chief, Bill Kirk Secretary/Treasurer, and Don Cable Training Officer.

In the summer of 1972, the Kalsin Bay Road Maintenance Station, operated by the State of Alaska, opened as a permanent camp. Ernie Simmons was the first resident operator of the camp. He was joined by Floyd Case in October. Up until this time, Emerald Maintenance Company serving the Tracking Station had voluntarily helped to maintain the road from Mile 20.

In the Fall of 1972, Chiniak became a Voting Precinct. This was due largely to the efforts of Sharon Ogden, who had worked in Governor Egan's Office. The first voting Judges were Millie Walker, Leatress Kirk, and Vickey Mackey.

In 1973, Hopper's Liquor Store opened at Mile 42.

In March 1975, the U.S. Air Force announced that the Tracking Station would be closed. Most of the families were gone by fall, although a few stayed until the following summer, charged with the task of closing and inventorying the Station. Closure of the Tracking Station resulted in approximately $5.5 million in annual savings to the Air Force. After the Air Force announcement that the Tracking

Station would be closed, the Department of Defense declared the installation (buildings and property) excess to its needs. Of the residents that remained in Chiniak some became self-employed in seasonal construction and fishing industries and some obtained full-time jobs in the City of Kodiak. This is very similar to the current employment patterns that exist in Chiniak.

Leisnoi, Inc., acquired control of the excess real and personal property of the Tracking Station on December 30, 1975. Sometime later Shelikof Net established a crab pot construction business at the Tracking Station. The business lasted about 1 year.

At the Borough election held in the fall of 1977, the Chiniak Advisory School Board was reestablished. John Lucas, Crystal Ranney and Geno Gurerro were elected to serve.

On April 29, 1979, Leisnoi, Inc., was given Interim Conveyance to the Tracking Station. That Fall, the Chiniak Community Project replaced the Chiniak Home and School Association. Judy Lucas, Verda Koning and Teresa Stone served on the first board of directors.

In 1982, the Chiniak Comprehensive Planning Committee, including the Pattersons, Stones, Penningtons, Lucases, Crawleys, and others, held its first meeting at the home of John and Judy Lucas. Subsequently, more than twelve planning meetings were held in order to develop the draft Chiniak Area Plan. It was submitted to the Borough Assembly on April 7, 1983. The Assembly sent it back to the committee for further work and revision. No further action was taken.

On New Year's Eve, December 31, 1982, the Road's End Bar opened at the home of Ernie and Dotty Hopper, located at Mile 42.

On January 21, 1984, the dedication of the new Chiniak School facility took place. This structure was the culmination of years of hard work by many individuals. The community obtained a direct appropriation from the Alaska State Legislature, late in the session of 1982, and construction of this 8,100 square foot building began in the spring of 1983. Along with a 720 square foot generator/water treatment building, the school is mainly comprised of two large classrooms, a learning resource center, multi-functional kitchen and a large multipurpose gymnasium. The 1986 enrollment at the Chiniak School was about thirty children.

In 1984, spearheaded by Anne Salzer, the Chiniak Public Library was established in the former school building. The Library features a collection of over 4,500 books. An Apple IIe computer is available for public use and the library provides a limited selection of entertainment and utility software. The Library also provides access to the State Library System and the State Film Library through a microfiche catalog. From time to time the Library provides storyhours, young people's programs and films for family entertainment. The Library is operated by community volunteers and is open ten hours per week. The Library is also used as a community meeting hall.

In the spring of 1985, the Chiniak Volunteer Emergency Medical System (EMS) was officially established. Teresa Stone and Deborah Walser are certified EMT's serving the area from Middle Bay to Chiniak including Pasagshak. They work in cooperation with the Kodiak Fire Department.

In October of 1985, a U.S. Postal Service contract post office was opened by Jerry and Mary Crawley at mile 34.8. The Chiniak Post Office is open 6 hours per week three days a week. Mail is picked up from Kodiak and brought to the community on Tuesday, Thursday and Saturday.

In December of 1985, the Chiniak Community Forum was formed, the group was incorporated as a non-profit corporation on March 9, 1986. The corporation operates primarily to further the common good and general welfare of all the people in the community of Chiniak. The Chiniak Community Forum was also created to establish a legal entity that would be recognized by local, state and federal governments.

In 1986, the Chiniak Community Forum signed a memorandum of agreement with the Kodiak Island Borough to provide for maintenance of Borough parks in the Chiniak area. The first parks project developed in Chiniak was the creation of a ballfield at the school site. A picnic area, wayside, and trail system are planned for the future.

In addition, the Chiniak Community Forum received a $15,000 grant from the Kodiak Island Borough for Fiscal Year 1987 (July 1, 1986 through June 30, 1987). The Forum has used this funding to provide "dumpster" service for the community, along with EMS equipment and supplies. On October 1, 1986, Bill Kirk's home at Pony Lake became the first home in Chiniak to be energized by the new KEA Chiniak/Pasagshak powerline installed by Fishback-Moore.

In March of 1987, the Boy Scouts of America along with the Cub Scouts were reestablished. The Chiniak Community Forum is the primary sponsor for these groups.

B. PHYSICAL ENVIRONMENT

1. Topography *

The topography of Kodiak Island is rugged with maximum relief exceeding 2,000 feet in most areas. A central axially trending mass of intrusive rock forms a mountain spine which sometimes reaches elevations of more than 4,000 feet. During the glacial period, the island was the center of vigorous ice action. From its higher mountains, glaciers pushed out to sea in all directions covering almost all of the land. The severe glacial erosion of this period produced the glacial valleys and fiord coastlines which characterize the present topography of the Island.

In the Chiniak area, the topography ranges from the nearly level tidelands to steep and somewhat inaccessible hillsides.

2. Geology **

The Chiniak area is underlaid by marine sedimentary bedrock that was deposited many millions of years ago during the Tertiary period. The rock comprises beds of shale and sandstone that vary in thickness from less than an inch to several feet.

* From Sources 1 and 6 (bibliography).

** From Source 4 (bibliography).

The rock has been tilted from its original horizontal position, and the bedding planes now have steep dips of between 60 degrees Northwest and 50 degrees Southeast and strike North to Northeast.

The bedrock is slightly metamorphosed and thoroughly jointed, and contains abundant quartz veins. The rock is broken by many small faults and fractures of apparently random orientation. No major faults, shear zones, conspicuous concentrations of fractures or areas of crushed rock have been observed in the Chiniak area. The attitude of principal jointing is generally parallel to the bedding.

The surface of the bedrock was eroded by glaciers during the Pleistocene Epoch, the last 2 to 3 million years. Grooves as wide as Kalsin Bay were gouged into the rock with preference for the Northeast direction parallel to the bedding planes. Smaller-scale grooves and striations are evident. Streams now occupy the glacial valleys and have deposited alluvial silt, sand, and gravel in depressions and at the mouths of streams. Except for the alluvial deposits, unconsolidated formations more than several feet thick are not apparent. An overburden of vegetation, soil, and deeply weathered rock, generally less than 10 feet thick, blankets the bedrock in most places.

3. Hydrology *

A. Surface Water

Total annual rainfall in the Chiniak area averages between 75 and 100 inches per annum and is fairly evenly distributed throughout the year. Most of the precipitation runs off in several perennial streams that drain the area.

1. Streams

The only stream in the area with a continuous record of discharge is Myrtle Creek which flows into the East side of Kalsin Bay. Myrtle Creek drains an area of 4.74 Square miles and in 18 years of records had a minimum discharge of one cubic foot per second (USGS, 1981) or about 450 gallons per minute. Based on drainage areas measured on topographic maps (USGS quadrangles, Kodiak C-1 and C-2, Alaska), there are four other streams in the area that (probably) maintain flow during periods of little rainfall. These are Roslyn Creek with a drainage area of 7.3 square miles, the West Fork of Twin Creek with a drainage area of 4.3 square miles, and Chiniak River with a drainage area of 7.4 square miles. The East Fork of Twin Creek has a smaller drainage area of 3.5 square miles but (probably) maintains flow during dry periods also. The unnamed stream that discharges just West of the present site of Chiniak School drains only 1.6 square miles and (probably does not) flow during dry periods. Some residents of the area obtain some or all of their domestic water supply from streams. Data regarding the quality of water in some of these streams are on file with the Alaska Department of Health and Social Services.

2. Lakes

There are few large lakes in the area. The largest was Chiniak Lake with a surface area of about 100 acres, however a washout of the spit in the early 1980's

* From Source 4 (bibliography), and planning committee members.

incorporated the lake into Chiniak Lagoon. Sawmill Lake (also known as Pony Lake) is apparently a lagoon that was closed off by a beach barrier upon which a roadway was constructed. About a quarter of a mile south of Sawmill Lake, there is a large beaver pond that has a surface area of about five acres. There are small beaver ponds on some of the streams and a few small glacial lakes at higher elevations. Part of the now-abandoned tracking station at Cape Chiniak reportedly was served by water from one of the glacial lakes.

B. Ground Water

Some rainfall infiltrates through the ground surface and percolates through openings in the soil and rock. The openings include pore space in soil and cracks and fractures in the bedrock. Cracks and fractures are generally abundant in the bedrock and allow small amounts of water to pass through interconnected openings. Percolating water tends to move vertically to the water table and then moves generally toward the shore. The water table in fractured rock is much more variable than in unconsolidated materials, but it generally forms a subdued reflection of the topography. Many small seeps have been observed on the cliffs along the shore in the Chiniak area.

1. Alluvium

The alluvial deposits tend to be coarse-grained near the shore. Pore space probably ranges between 10 and 20 percent by volume. Since the deposits are rather coarse, they are free draining and will yield water copiously. Alluvial deposits in the valleys away from the shore tend to be coarse-grained in channels and fine-grained in flood plains. With depth, layering of alternately coarse and fine-grained sediments should be expected due to the meandering nature of most streams Water tables in the alluvium probably approximate the level of the streams.

The thickness of alluvial deposits in the area are not known since records of exploration are not available. Inferences from the topography of the valleys indicate that at the mouths of most of the major streams (Myrtle Creek, Roslyn Creek, and Twin Creeks) the alluvium may be as much as 50 feet thick. The valley of the Chiniak River, which is very broad near its mouth, appears to contain only thin alluvial deposits.

Deep alluvial formations in coastal areas generally contain sea water beneath the fresh water. The fresh water/sea water interface within the alluvium deepens in the landward direction, and its depth depends on the altitude of the water table and the dynamics of groundwater movement.

2. Bedrock

Effective pore space in the bedrock consists of cracks and fractures and amounts to only a very small percentage (approximately. 1%) of the rock mass. Since the cracks and fractures are imperfectly connected, the bedrock generally yields small amounts of water.

Water well data has been compiled during interviews with local residents and from records in the files of the U.S. Geological Survey, Water Resources Division, South Central District. The water table in the bedrock is generally reported to be high (within 20 feet of the ground surface). The water level in some wells reaches the ground surface, and water reportedly flows from an artesian well at the tracking station. Although cracks and fractures are probably not uniformly distributed throughout the depths of the wells, the effective pore space in the rock is saturated below the water table. There is no evidence of perched water bodies in the bedrock but water is commonly perched at the bedrock/overburden contact. As in alluvial areas, fresh ground water in the bedrock is underlaid by

denser sea water at depth. The depth to the fresh water/sea water contact is likely much greater in bedrock areas than in alluvial areas. Although no instances of contamination by sea water in bedrock wells in the area are known, extremely deep wells may encounter brackish water.

Records of yields indicate that only 2 of 10 bedrock wells failed to adequately supply a household with all of its domestic water. Some of the wells provide domestic supplies for more than one household: one is reported to have served 13 trailer homes in past years. No records of pumping tests are available and the yields were either based on discussions with the residents or were estimated by the driller.

TABLE 1. SELECTED DATA FROM WELLS IN THE CHINIAK AREA*

WELL NO.	WELL DEPTH (FT.)	GROUND ELEVATION (FT.)	DEPTH TO WATER LEVEL (FT.)	YIELD (GALLONS PER MINUTE)	AQUIFIER MATERIAL	REMARKS
1	44	15	5		Alluvial Gravel	Capacity is untested but probably in the range of several tens of gallons per minute.
2	95	100	20	1	Shale Bedrock	
3	128	100	12	5	Shale Bedrock	Reported to be no longer in service.
4	107	40	0	10	Shale Bedrock	First water encountered at 25 feet.
5		25			Shale Bedrock	Reported to be quite productive.
6	20	30	14	0.1	Overburden	Produces poor quality water.
7	230	40	190	1	Shale Bedrock	Produces poor quality water.
8	124	100	15	0.1	Shale Bedrock	Produces poor quality water.
9	300	100		0.1	Shale Bedrock	Capacity diminishes markedly during dry periods.
10	150	100	15	6	Shale Bedrock	Capacity is adequate to supply all domestic water for 3 households.
11	20	120	5		Overburden	Drys up during dry periods.
12	148	100	15	5	Shale Bedrock	
13	144	100	15	5	Shale Bedrock	
14			0			Flowing artesian well.
15	165	40	20	3	Shale Bedrock	Produces good quality water. Reported by a member of the Planning Committee

* From Source 4 (bibliography). Along with well number 15, other wells have been drilled in the area to approximately double the total number of wells in the area.

4. Soils*

The soils (Ando soils) in this great soil group have thick, dark surface horizons and normally no horizon of clay accumulation. Typically, these soils are very high in organic matters and they have a very low base saturation. Several soils in the group have been described previously as "Tundra without permafrost."

The soils of the Kodiak, Sharatin and Pyramid series are in the Ando group. The Kodiak soils are underlaid by weathered slate, graywacke, and hard granitic rock, or by glacial till derived from these rocks. Except for the recently deposited ash, the soil probably has formed from the weathered underlying parent material that was mixed with ash that fell before 1912.

The upper two layers of ash are silt loam in texture, but most of the silt approaches the size of very fine sand. The lower layers of ash are much coarser. The buried soil, especially the buried surface horizon, is very high in organic matter.

The vegetation is mainly grass - bluejoint and tufted hair-grass - mixed with fireweed, horsetail and other forbs. Large patches of shrubs, mainly mountain alder, are common. Several areas are covered by forests of Sitka spruce. The soil under forest differs from soil under grass (the typical profile) only in that the surface litter consists of needles, twigs and cones of spruce instead of straw and leaves of shrubs.

* From Source 6 (bibliography).

A Kodiak soil profile from the uplands between Middle Bay and Kalsin Bay, was sampled by Kellogg and Nygard. Evidently the volcanic ash had been disturbed at this site, and all ash layers were combined into one sample. Although the cation-exchange capacity of the buried soil is high, hydrogen makes up most of the absorbed cations, and the base saturation is very low. These properties account for the strong acidity of the soil, and, in part for its low natural fertility. The volcanic ash is less acid, but its exchange capacity is extremely low. This is typical of all layers of ash, according to the analyses of other soils not presented here.

5. Vegetation *

Vegetation on Kodiak Island is quite varied with nearly all of the area covered with some form of grasses, shrubs or trees. On the northeast end of Kodiak Island, especially in the vicinity of Spruce Cape and Cape Chiniak, dense forests of mature Sitka Spruce occur. The low protected valleys of central and eastern Kodiak Island contain cottonwood, birch and alder. Areas of central Kodiak Island which are exposed to winds, as well as most of the western part of Kodiak Island are treeless. Most treeless areas support a thick cover of grass, although some low brush and tundra vegetation such as mosses and lichens, prevail in localized areas. The variation of vegetation on the Island is quite spectacular and provides an unusually attractive array of color, patterns and textures.

* From Sources 1, 6 and 7 (bibliography).

From the standpoint of grazing and according to an old vegetation survey (accompanying soil survey series 1956, No. 17), the Chiniak area has 4,946 animal-unit months of forage available. In severe weather, however, Sitka Spruce in the area is valuable as livestock shelter. Sitka Spruce covers most of the area. Alder and bluejoint grass are the second and third most abundant plants. The area from the northeasterly terminus of Kalsin Bay to Cape Chiniak is covered with fairly dense stands of Sitka Spruce with underlying blueberry, devil's club and salmonberry. Grassland meadows are abundant below the cottonwoods, alders and willows, as well as in open stands by themselves. Fireweed, salmonberry and ferns are also major species present in the area. Lynne grass is the dominant vegetation along beaches and in river deltas. Eelgrass may be found in some delta areas.

6. Wildlife *

The Kodiak National Wildlife Refuge, which covers approximately 1,815,000 acres or 82 percent of the Kodiak Island land mass, is one of the last strongholds of the famous Kodiak brown bear. Most bears are found in the southern and western parts of the Wildlife Refuge, although some are found in the eastern part of the Island, principally near Cape Chiniak and Saltery Cove. The bears feed primarily on grass and roots in the spring, salmon and other fish in the summer, and berries in the fall. Most bear hunting for sport is conducted in the southwestern part of the Island.

* From Source 1 and 7 (bibliography), and planning committee members.

Other animal life on the Island include the Sitka black-tailed deer which are now common throughout the eastern end. Smaller animals found throughout the area include fox, rabbit (snowshoe hare), weasel, squirrel and beaver. Land otters are also occasionally sighted. Seal and sea lion rookeries are found in the Kodiak Island group and sea otter are seen frequently. The fresh waters in the area are inhabited by pink, chum and silver salmon as well as Dolly Varden and coast range sculpin. The brackish delta areas contain three-spine stickleback and starry flounder.

Birdlife is interesting and varied. In addition to bald eagles and the usual gulls and marine birds including puffins, several species of ducks, including the Harlequin, Stellar Eider and King Eider, may be seen during certain seasons. Aleutian Geese have also been sighted by residents. Common ravens, magpies, northwestern crows, thrushes, finches, ptarmigans and sparrows may also be encountered in appropriate habitat areas. Trumpeter Swans return annually to the Kalsin Bay Road Camp area.

7. Climate *

Ocean influences govern the climate of Kodiak. A warm current keeps temperatures relatively stable with summer temperatures in the fifties and winter temperatures averaging around freezing.

* From the Monashka Bay Plan, April 1985.

A yearly average of fifty-four inches of precipitation in the form of rain falls on the Island in the vicinity of the City of Kodiak, while seventy-five inches of snow accumulates here.

Winds from the northwest predominate at velocities averaging twenty knots. Localized winds can become greatly accelerated due to terrain features.

8. Hazards *

Kodiak Island is situated in a zone of frequent earthquake occurrence. Its ocean location also makes it vulnerable to tsunamis.

Locally, Kodiak is buffeted by strong storms. Damage from storm waves and flooding also occurs.

The combination of steep topography, intense rain, and fractured rock creates landslide potential. Both large landslides and small slumps could occur in the area.

* From the Monashka Bay Plan, April 1985.

C. CULTURAL FEATURES

The land base of the Chiniak community consists of several United States Surveys aligned along the Cape Chiniak Road, a State maintained road. Public facilities in the area consist of the road and a school, grades kindergarten through 8, operated by the Kodiak Island Borough School District. Law enforcement is provided by the State of Alaska through the Alaska State Troopers. In addition, the Chiniak Library Association operates a community library in the old school with the use of community volunteers, and annual financial contributions from the Kodiak Island Borough. In Fiscal Year 1987 this contribution was $3,500.

The community does not currently have public water and sewer service, telephone service or fire protection. Each residence or existing business provides their own on-site waste disposal system (most commonly a septic system) and water supply system (most commonly a well). In October 1986 the community received electrical power through the Kodiak Electric Association, a user cooperative. Chiniak residents pay the same rates for electricity as City of Kodiak customers. In addition, the local telephone utility that serves the City of Kodiak has announced plans to extend telephone service to the area by the summer of 1987.

The Chiniak Community Forum applied for and received a $15,000 grant in fiscal year 1987 from the Kodiak Island Borough. The Chiniak Community Forum has used these funds to pay for twelve (12) dumpsters located throughout the community. This has provided an immediate solution to the problem of solid waste disposal in the community. In the meantime, the Kodiak Island Borough has taken on garbage collection powers on a non-areawide basis, which will have an impact on this

service in Chiniak. The Borough anticipates taking over the responsibility for garbage collection services in Chiniak in May of 1987. The Chiniak Community Forum has also used part of the previously mentioned grant funds to provide materials and supplies for the local EMS volunteers. The Kodiak Island Borough also adopted animal control powers on a non-areawide basis effective January 1, 1987. Animal control for the Chiniak area is done on a complaint basis by a contract animal control officer.

The Kodiak Island Borough also has non-areawide parks and recreation powers and has worked with the Chiniak Community Forum to supplement the recreation facilities at the school playground. Park facilities include the establishment of a ballfield at the school/library site and the clearing of a future "wayside" across the highway from the school/library site. In addition, there are long range plans to develop a picnic area near Silver Beach and a walking trail connecting all of these sites. In 1986, the Kodiak Island Borough and the Chiniak Community Forum signed a "memorandum of agreement" to provide for maintenance of and equipment for these parks. The responsibility of the Forum, as spelled out in the memorandum, is for maintenance of the sites after they are developed.

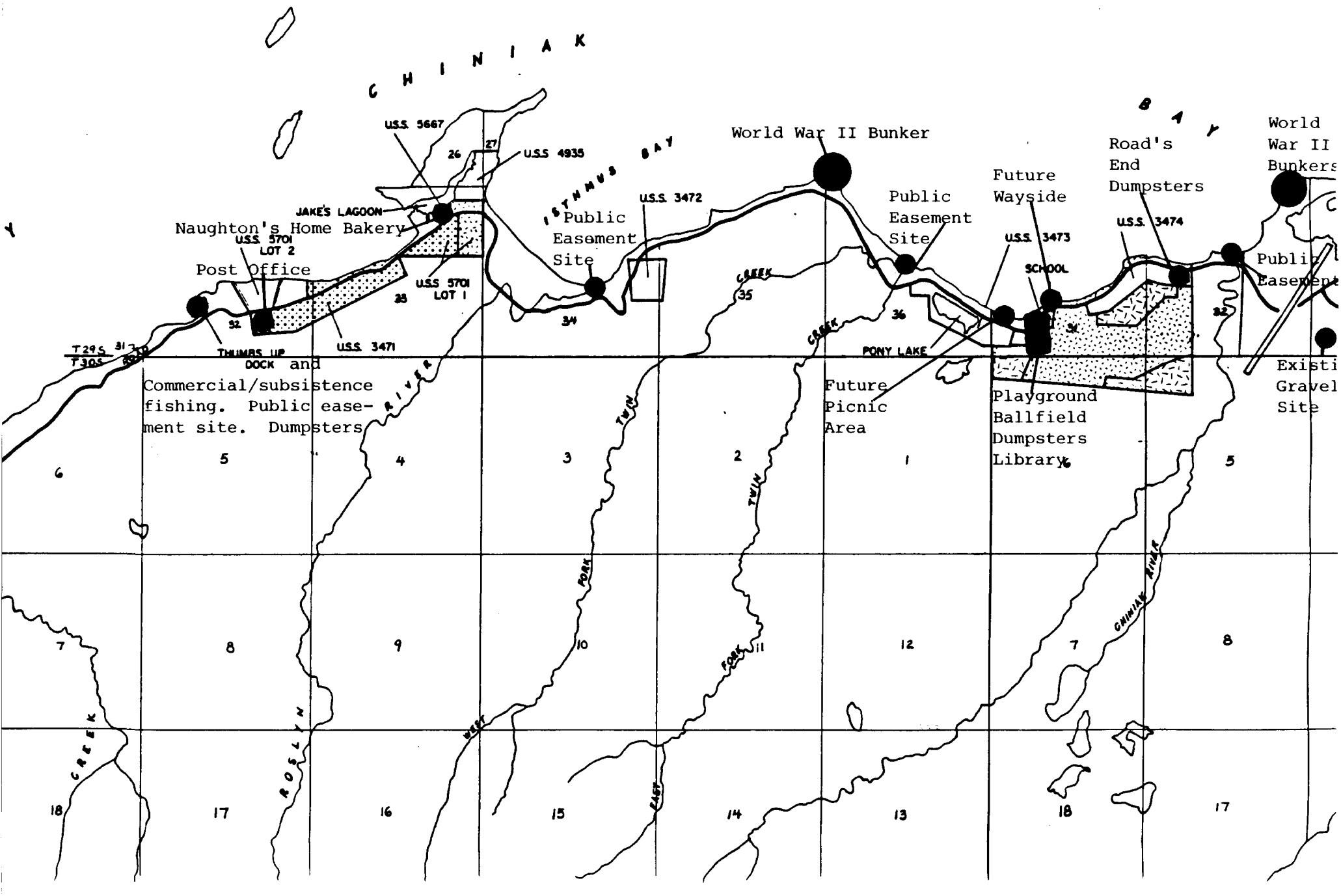
Other "community facilities" in the area include the Chiniak Post Office at Mile 34.8, Road's End at Mile 42, a commercial enterprise that includes a bar, restaurant and lodging facilities, and Naughton's Home Bakery at Mile 36.2.

Map 2 identifies community facilities and other important cultural and physical features in and near the planning area. Important physical features include Thumb's Up (or Rocky Bay) at Mile 35, which is used as a staging area for individual commercial and subsistence fishermen, as well as a general recreation

area. Other sites in the community that have traditionally been used for recreation by both Chiniak residents and residents road-system-wide include: Roslyn Beach at Mile 37, Twin Creeks Beach at Mile 39, Silver Beach at Mile 40 and Chiniak River Beach at Mile 42.

Land ownership of the 2,688 acres in the planning area is shown on Table 2. The current population of the planning area fluctuates between 120 and 150 residents. Table 3 identifies existing and proposed subdivisions in the Chiniak area. In accordance with State Law, all of the Kodiak Island Borough is divided into land use districts. Table 4 identifies how land is classified (zoned) in the Chiniak area. All property not otherwise identified is currently zoned Conservation.

MAP 2 COMMUNITY FACILITIES AND CULTURAL FEATURES



MAP 3 KEA ELECTICAL DISTRIBUTION LINE

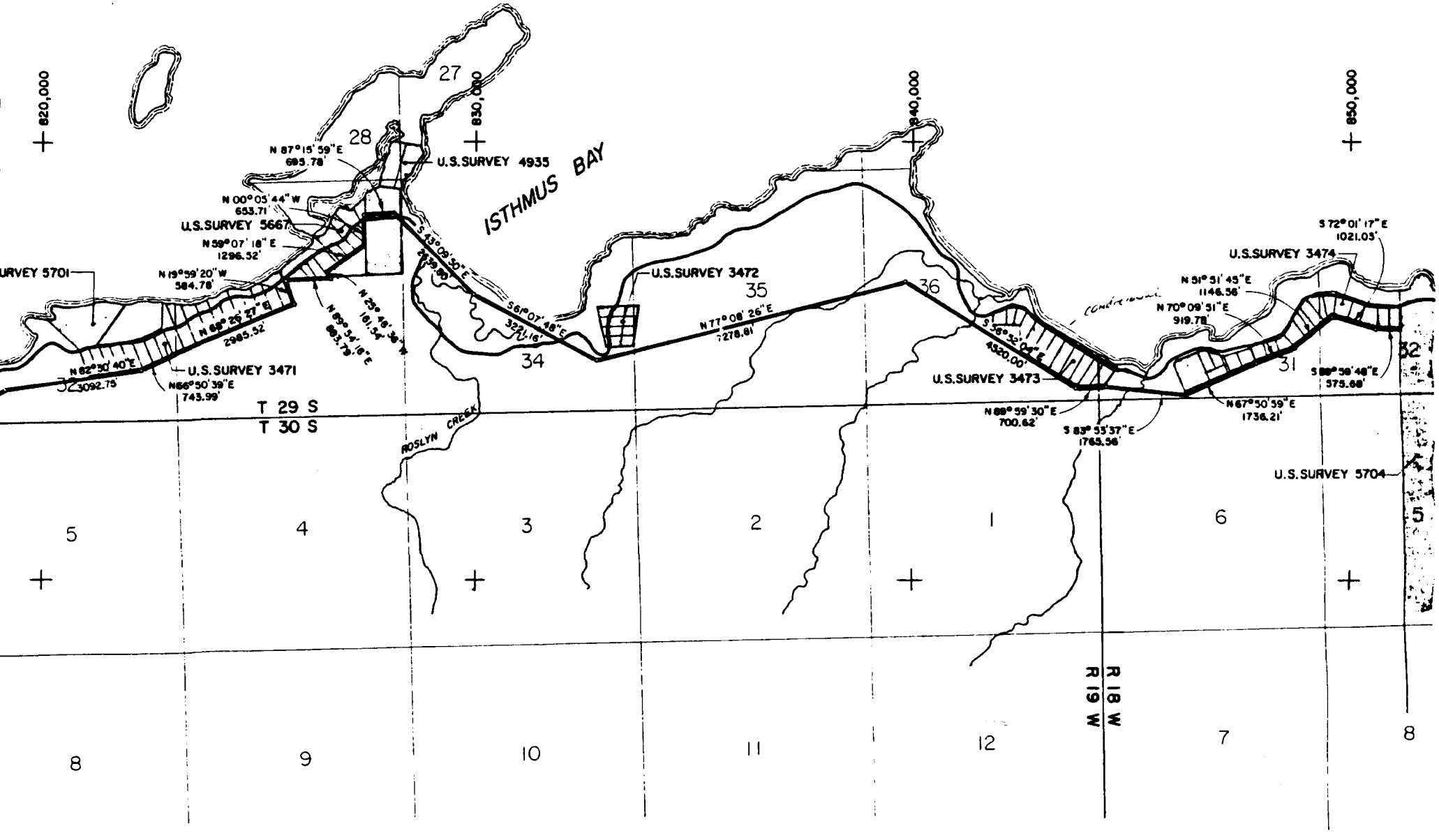


TABLE 2

CHINIAK AREA COMMUNITY

GENERALIZED LAND OWNERSHIP

OWNERSHIP	ACREAGE	% OF TOTAL
Federal - BLM (USS 3471, Lot 22)	1.3	Negligible
State (USS 3472, Lots 1 and 2)	1.3	Negligible
Borough (Chiniak Subdivision)	296.2	11%
Leisnoi* [USS 3473, Lots 7 through 9 (15.0 acres) plus all other unsubdivided land not in other ownership in the planning area.]	2,094.1	78%
Private (land in U.S. Surveys not in other ownership)	295.1	11%
TOTAL	2,688.0	100%

* As part of the conveyance of this land to Leisnoi, public sites and easements were retained at the following locations as access to the tidelands. Allowed uses of these site easements are: vehicle parking (e.g., aircraft, boats, ATV's, snowmobiles, cars, trucks), temporary camping and loading and unloading; temporary camping and loading and unloading is limited to 24 hours.

1. Thumb's Up (or Rocky Bay) - 1 acre site
2. Roslyn Beach - 2 acre site
3. Twin Creeks - 1 acre site
4. Chiniak River - 1 acre site

At Silver Beach the road right-of-way provides access to the beach.

MAP 4 GENERALIZED LAND OWNERSHIP

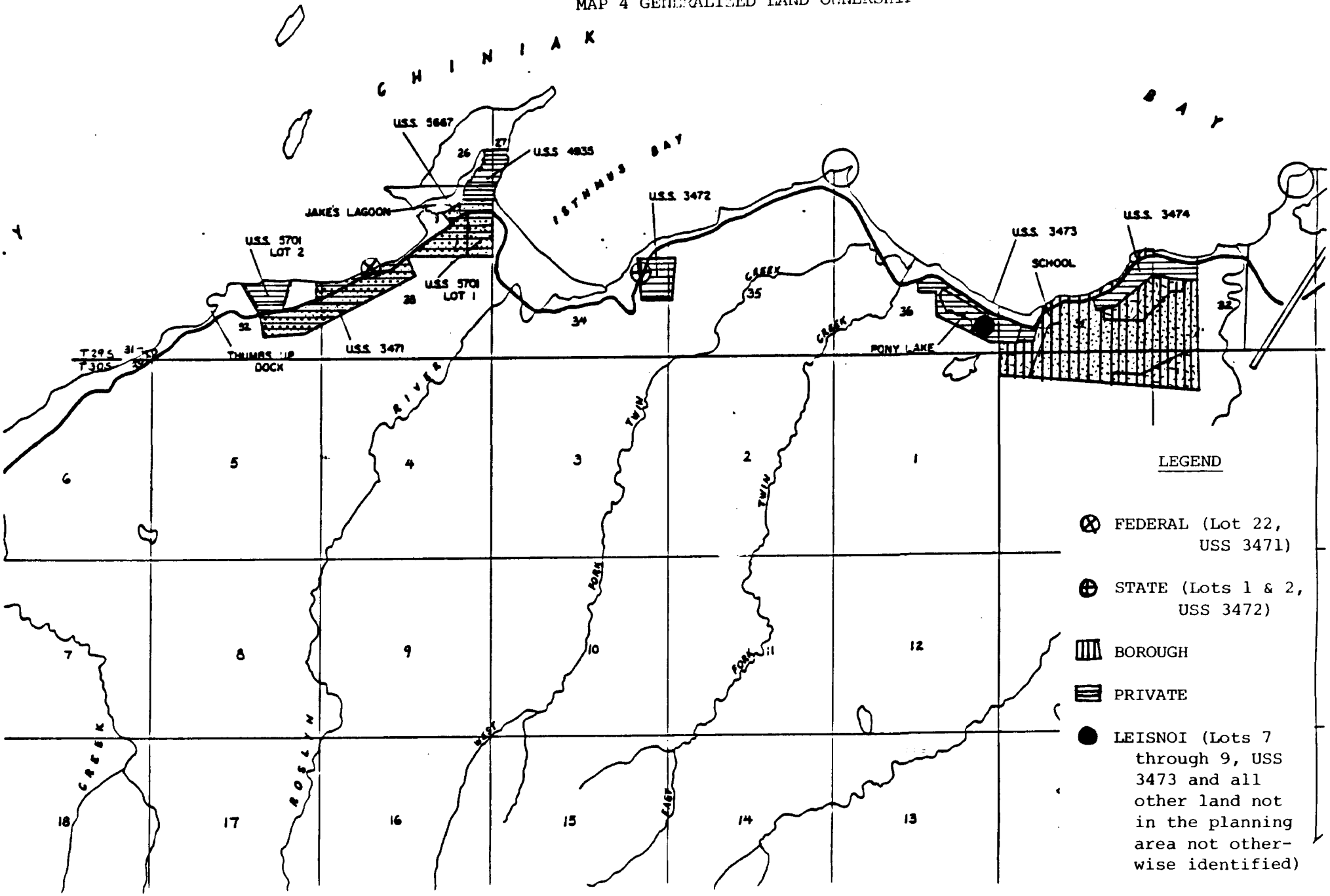


TABLE 3 - CHINIAK AREA COMMUNITY - SURVEYED AND SUBDIVIDED LAND

SUBDIVISION/SURVEY	ORIGINAL ACREAGE	SUBDIVIDED ACREAGE	ORIGINAL NUMBER OF LOTS	LOTS IN SUBDIVISION	DATE EFFECTIVE
U.S. Survey 3471	84.6	----------	27	----------	3/11/59
U.S. Survey 3471 (Lot 12)	--------	3.8	----------	2	*
U.S. Survey 3472	17.4	----------	11	----------	3/11/59
U.S. Survey 3473	48.0	----------	12	----------	3/11/59
U.S. Survey 3474	42.2	----------	13	----------	3/11/59
U.S. Survey 4935	13.7	----------	2	----------	4/22/70
U.S. Survey 5667	4.0	----------	3	----------	?
U.S. Survey 5701	76.6	----------	1	----------	4/18/72
U.S. Survey 5701 (East Half of Lot 1)	--------	38.3	----------	7	**
U.S. Survey 5701 (West Half of Lot 1/Brookers Lagoon)	--------	38.3	----------	13	11/09/82
U.S. Survey 5701 (West Half of Lot 1/Brookers Lagoon - subdivision of Lot 6)	--------	12.28	----------	7	***
U.S. Survey 5701, Lot 2	26.2	----------	1	----------	4/18/77

* Final approval granted November 20, 1985
** Preliminary approval granted May 21, 1986
*** Preliminary approval granted March 22, 1985, one-year extension granted to March 20, 1987, second one-year extension granted to March 16, 1988

CONTINUED

TABLE 3 - CHINIAK AREA COMMUNITY - SURVEYED AND SUBDIVIDED LAND - CONTINUED

SUBDIVISION/SURVEY	ORIGINAL ACREAGE	SUBDIVIDED ACREAGE	ORIGINAL NUMBER OF LOTS	LOTS IN SUBDIVISION	DATE EFFECTIVE
Chiniak Subdivision	296.0	----------	54	----------	Survey Only 1973
Chiniak Subdivision (Tract E - partial Blocks 1 and 2)	--------	22.4	----------	6	10/12/84
Chiniak Subdivision (Remainder of Block 1 and partial Block 2)	--------	26.1	----------	8	*
TOTAL	361.2	---------	84	----------	
Cape Chiniak Subdivision (proposed)	1,465.0	---------	293	----------	**

* Final approval granted March 19, 1986

** Outside planning area. Preliminary approval granted July 7, 1983; one-year extension granted to April 20, 1985; second one-year extension granted to April 30, 1986; third one-year extension granted to July 7, 1987.

TABLE 4 - CHINIAK AREA COMMUNITY - ZONING HISTORY

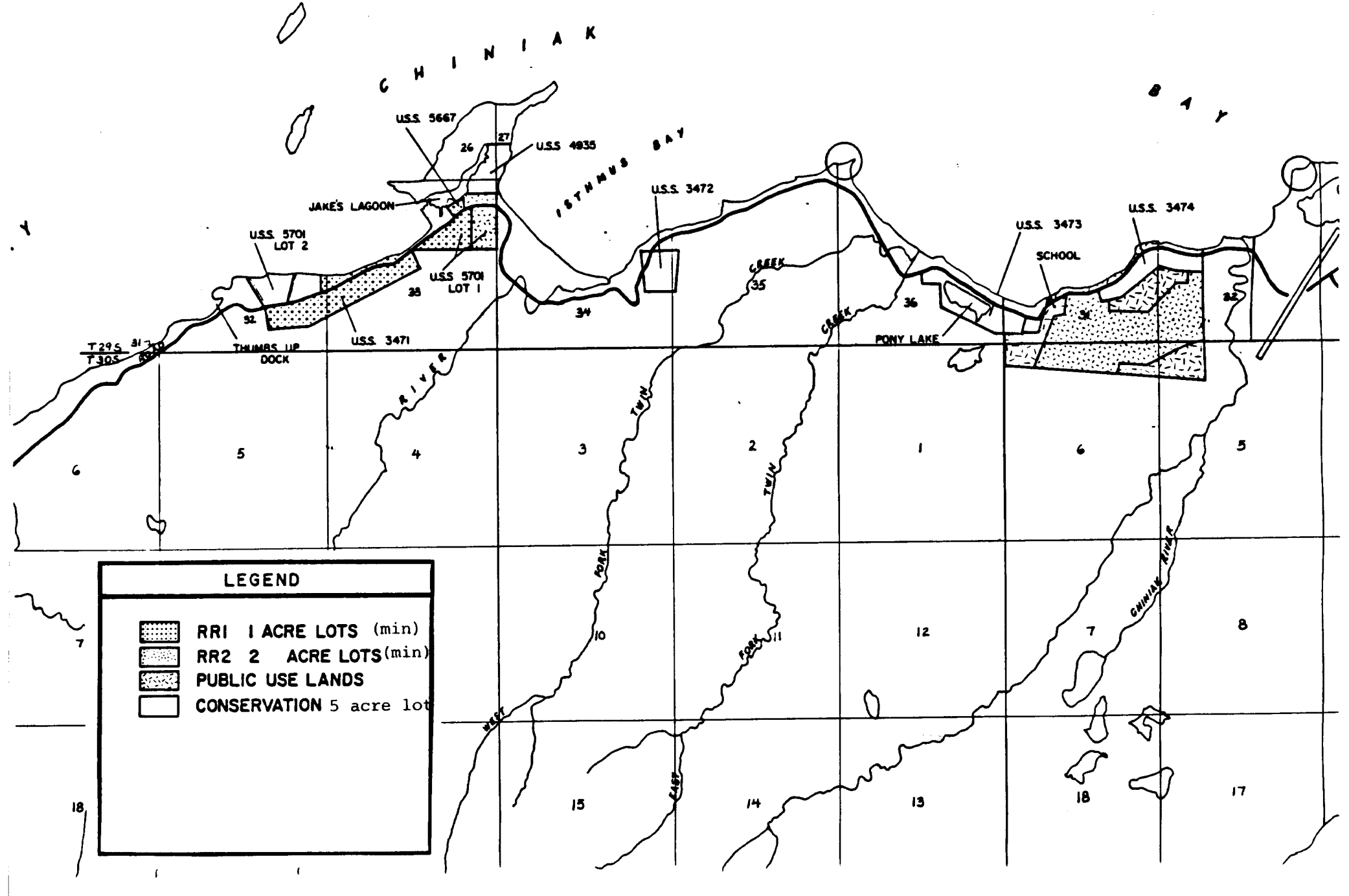
Area	Zoned From	Zoned To	Acres	Ord.	Date
Tract E, Chiniak Subdivision (School Site)	Conservation	"Public Use"	9.82	68-16-0	9/05/68
U.S. Survey 3471	Conservation	"Unclassified"	84.60	72-14-0	8/20/72
Chiniak Subdivision	Conservation	"Unclassified"	296.20	73-21-0	10/04/73
U.S. Survey 5667	Conservation	"Unclassified"	4.00	74-02-0	2/07/74
Borough-wide	Not Zoned	Conservation	N.A.	77-15-0	7/07/77
Borough-wide	"Unclassified"	Rural Residential	N.A.	80-09-0	4/03/80
Brookers Lagoon Subdivision	Conservation	Rural Residential	38.30	82-29-0	8/05/82
Borough-wide	Rural Residential	Rural Residential One	N.A.	83-15-0	3/03/83
Chiniak Subdivision	Rural Residential	Rural Residential Two	175.10	83-65-0	11/09/83
Chiniak Subd. (Tracts A through E)	Rural Residential One	Public Use Lands	121.10	83-65-0	11/09/83
East Half of Lot 1, USS 5701	Conservation	Rural Residential Two	38.30	86-26-0	7/01/86
Portion of Lot 1, USS 3471	Rural Residential One	Business	± 1.00	86-46-0	12/11/86

The areas described above amount to: 126.9 acres (5%) of Rural Residential One,
213.4 acres (8%) of Rural Residential Two, and
121.1 acres (5%) of Public Use Land.

As previously mentioned, the remainder of the Chiniak area (2,226.6 acres/82%) is zoned Conservation.

* The effective date of this ordinance is the date the final plat for the subdivision of Lot 1, U.S. Survey 3471 is recorded.

MAP 5 CURRENT ZONING



ISSUE IDENTIFICATION/NEEDS

The following issues and needs have been identified as important to the residents of the Chiniak area. They have been identified through a public participation process that has included community meetings and a community survey. The community survey was mailed in August of 1986 to all the property owners in the Chiniak planning area (approximately 80 property owners). The survey was also supplied to each boxholder (approximately 30). (See Appendix A)

The issues and needs identified in this section of the Plan are those that seem to be of greatest concern to residents in the planning area. The identification and analysis of these issues and community needs form the basis for the development of a major portion of the Plan, the goals and objectives. Each of these issues/needs is examined in more detail in the following section of the plan.

A. ROAD MAINTENANCE/EROSION

As the Chiniak community continues to grow its needs for services will change. The existing State Highway will not be adequate if additional traffic is generated by development. The road is subject to erosion at certain points. This problem was identified in a 1982 study by the Alaska Department of Transportation (See Map 6) (Source 8).

This study contained specific recommendations for the improvement of the Chiniak Highway. They are included below:

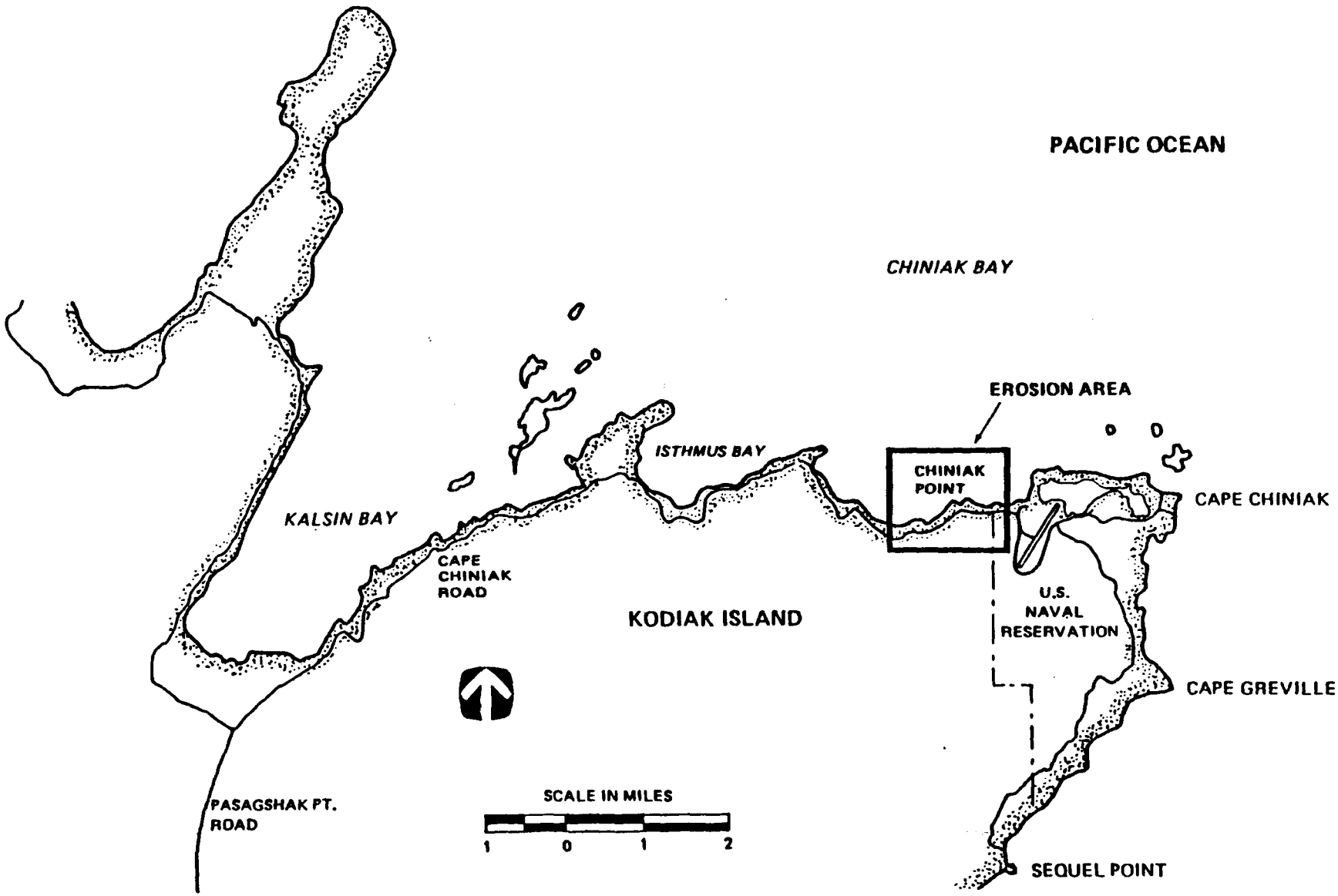
"RECOMMENDATIONS

Three alternatives for mitigating damages to Cape Chiniak Road were evaluated and are summarized as follows:

	Alternative	First Costs	General Effects
1.	No-Action (Alternative A)	None	Cape Chiniak road will continue to erode and be closed, cutting off surface access to property east of U.S. Survey 3474.
2.	Road Relocation (Alternative B-1)	$410,000	Cape Chiniak Road would be maintained near its present location for approximately 7 years before further erosion threatens it again. The State would have to obtain a new highway right-of-way across private and public property.
	Road Relocation (Alternative B-2)	$1,069,000	Cape Chiniak Road would be relocated south of U.S. Survey 3474 and a new highway right-of-way would be obtained from the Kodiak Island Borough. The road would experience no coastal erosion in the foreseeable future.
3.	Quarry Stone (Alternative C)	$7,701,000	Cape Chiniak Road would remain in its present location with the revetment providing long-term protection from wave erosion. Extension of the revetment may become necessary as erosion continues along adjacent unprotected shorelines.

If sufficient funding is available, it is recommended that the Road Relocation Plan B-2 be implemented. This alternative will provide the greatest benefits at least risk. In the interim, a detailed ground survey which establishes the existing highway right-of-way with respect to the eroding bluff line should be performed. Mapping using aerial photographs obtained during this study with ground survey control points should be performed to obtain topographic and other detailed design information. These data may indicate that offsetting the road inland as erosion occurs may be practical for several more years.

Coordination with the Kodiak Island Borough to optimize the highway relocation with future Chiniak Subdivision development plans is also recommended. Further action should be taken as soon as practical to prevent closure of Cape Chiniak Road" (emphasis added).



MAP 6
SOURCE 8

CAPE CHINIAK ROAD
EROSION STUDY VICINITY MAP

TETRA TECH, INC.
ANCHORAGE, ALASKA

In March of 1986, the Kodiak Roadway Master Plan (Source 9) was completed for the Alaska Department of Transportation, the Kodiak Island Borough and the City of Kodiak. For the Chiniak area, the existing needs identified for the "link" between the Pasagshak turnoff and the end of the road: (1) a buildup of travel surface in spot locations and (2) shoulder deterioration in spot locations. The short term improvements suggested are (1) reconstruction of the surface with additional materials and (2) to continue repair and shore of the shoulder where possible. On the "link" between Middle Bay and Kalsin Bay the existing needs identified are (1) buildup of travel surface along Kalsin Hill and (2) shoulder deterioration in spot locations. The short term improvements suggested are (1) reconstruction of the surface with additional materials and (2) continuous repair and shore up where possible.

The Kodiak Roadway Master Plan states that:

> "The Transportation Improvement Program comprises potential improvements recommended to be implemented over the next approximately five years.
>
> The improvements have been combined on an annual basis for this short-range planning period.
>
> As shown, six projects have been defined for first year (FY87) implementation which partially includes roadway surface improvements along Cape Chiniak Road ($130,000)...
>
> Fourth year (FY90) improvements partially include extensive roadway surface improvements, particularly in the Kalsin Hill area ($380,000)...
>
> Major projects would require funding beyond the $500,000 annual budget guideline estimated by the Alaska DOT/PF. However, several of these projects are viewed upon as high priority improvements which would be recommended for implementation within the short-range timeframe...
>
> The second recommended major project is reconstruction of Kalsin Hill, estimated at a total cost of about $4.2 million. this project should also be accomplished within the short-range. However, with sufficient interim improvement such as roadway surface repair and minor widening of the travelway where possible, this project could be delayed to occur no later than 1995."

Presently the State of Alaska Department of Transportation and Public Facilities maintains the Chiniak Highway.

As population and employment changes within the area, so must the transportation facilities in order to provide efficient and safe travel and accessible opportunities for residents and visitors alike.

After the tracking station closed, there was a dramatic decline in the number of people living in the area. But since 1977, several events have taken place to reverse the decline and turn the Chiniak area into a steadily growing and stable community.

Briefly, these events include: (1) new home construction; (2) the growth of commercial fishing; (3) the opening of the new Chiniak School and the establishment of the Chiniak public library; (4) increasing employment opportunities in the Kodiak area for local residents; (5) increasing demand for rural living opportunities; and (6) completion of the KEA powerline to Chiniak.

The Chiniak road was under construction before World War II. After the Japanese attack on Pearl Harbor, the remaining 20 miles or so were put in as quickly as possible.

Very little has been done since then to bring this road up to federal highway safety standards. After the 1964 earthquake, some realigning was necessary and eventually two dangerous "s" curves were taken out in the Kalsin Bay area. Other than routine preventive maintenance, and the replacement of bridges at Myrtle Creek and Silver Beach with culverts, little has been done to upgrade this highway.

In June of 1986, the Kodiak Roadway Master Plan, prepared for the State of Alaska Department of Transportation and Public Facilities, was completed in its final form.

This plan provides a starting place to identify road issues. The Chiniak community urges the State of Alaska, the Kodiak Island Borough and the City of Kodiak to adopt this master plan and to implement the recommendations of the plan to ensure a safe and efficient roadway for both the residents of Chiniak and the general public.

The potential for growth in Chiniak is staggering. The Kodiak Island Borough has proposed a land disposal in the near future for a portion of the "Chiniak Subdivision." Leisnoi, Inc., the native corporation, owns the majority of land in the area; land that has the potential for residential development in the future.

The State of Alaska also owns land outside the planning area (near Sequel Point) that could one day be developed.

Hazardous road conditions simply cannot be ignored any longer and action must be taken to improve these conditions.

EMERGENCY MEDICAL SERVICES (EMS)

Emergency Medical Service (EMS) is an important service in any community and must be considered when planning for the community's future.

Presently there is EMS services in the Chiniak area, including the road system from roughly the American River Bridge in Middle Bay out the main road to the end

of the road in Chiniak. It also includes the Pasagshak Road out to Narrow Cape.

Currently there are two registered EMT's in Chiniak in the vicinity of Milepost 35. Along with first aid equipment, they are both outfitted with pagers linked to the Kodiak Fire Department. In addition one EMT is equipped with a portable two-way radio with hospital and fire frequencies. The other EMT has a two-way, two channel mobile radio installed in her vehicle. A VHF antenna and radio are installed at the Chiniak School to provide communications when and if the school is utilized as a shelter in case of a disaster. Volunteers are recruited as necessary.

As the community continues to grow, so will the need for expanded services in this area. Additional supplies, communications equipment and qualified personnel will be required to carry out the emergency medical services effectively. In addition, an effective emergency warning system needs to be installed in the community in case of a tsunami or other natural or man-made catastrophe to alert Chiniak residents to any pending disasters.

FIRE PROTECTION

Fire protection is also an important service in any community that must be considered when planning for the community's future.

Presently the Chiniak area receives no fire protection, unless there is a wildland fire. The Alaska Department of Natural Resources is responsible for responding to these types of fires. If structures or important resources are in danger, they will respond immediately.

Water supply plays a critical part in a fire service's ability to suppress fires that occur. In addition, insurance rates are determined by water accessibility. For Chiniak, which is beyond the public water system, water supply plans need to be developed to improve natural water sources so that they may be accessed by fire services in times of an emergency. There is a need for at least two pumpers (fire trucks) due to the expanse of the Chiniak community which is spread over seven miles of road.

There is a need to look to the future so that as the Chiniak community grows, so does the assurance that the businesses, homes, and beautiful surroundings of the area are safe from the ravages of fire.

WATER SUPPLY AND WASTE WATER DISPOSAL SYSTEMS

A fragile balance exists between the maintenance of good quality well water and the sometimes inadequate functioning of traditional septic systems. This is a reality which is currently impacting a number of residents in the Chiniak area and more particularly owners of property which require engineered septic systems. A more accurate assessment of the causes, treatment and prevention of water contamination in the area is seriously needed.

Additionally, there is a phenomenal expense to the private landowner for the installation of public sewer and water systems, if these systems are feasible. The costs of such systems would likely compromise the ability of residential areas in Chiniak to remain rural.

With regards to the water supply in Chiniak, the following discussion and conclusions are taken directly from the study, Water Resources of the Chiniak Area (Source 4):

"IV DISCUSSION AND CONCLUSIONS

The water resources in the Chiniak area are available and supplies can be developed from various sources. The sources are not evenly distributed nor are they equally reliable and constant. More intermittent sources require greater storage to maintain a steady supply.

A. Surface Water

1. Rainfall

A catchment measuring 50 x 50 feet could collect 125,000 gallons during an average year, given an annual rainfall of 80 inches. With large storage facilities to provide for periods of drought and neglecting evaporation, this would provide 340 gallons per day. Rainfall is the most variable source and would require the largest storage. Rainwater collected in a catchment system would require treatment to be potable.

2. Lakes

Natural storage of rainfall and runoff is provided by lakes. There are few lakes and ponds in the area which could provide large quantities of water. Chiniak Lake (note: Chiniak Lake is now part of the Lagoon), Chiniak Lagoon and Sawmill Lake* are near the ocean and may be brackish. Therefore, they may not be a suitable source of potable water. The beaver pond just south of Sawmill Lake is the only lake of significant size within a reasonable distance of Chiniak Road (we assume that development in the foreseeable future will remain clustered along Chiniak Road). Development of lake water would require a pipeline for transporting the water and treatment. Lake water, like stream water, is exposed to many kinds of pollution...

3. Streams

All of the major streams in the area, Chiniak River, Twin Creeks, Roslyn Creek and Myrtle Creek, could provide a steady supply of at least several hundred of gallons of water per minute. Diversions or infiltration galleries could be built almost anywhere along those streams. A pipeline and treatment facilities would be necessary for the development of stream water.

* This lake is more commonly known as Pony Lake.

B. Ground Water

1. Alluvium

Alluvial formations in the area are capable of yielding hundreds of gallons of water per minute if developed properly in thick, coarse-grained deposits. The most favorable sites for such development are near the mouths of Myrtle Creek, Roslyn Creek and Twin Creeks. High-capacity alluvial wells would not require storage facilities. Low- or moderate-capacity wells may need storage if peak demand exceeds well capacity.

2. Bedrock

The bedrock generally yields small amounts of good quality water. Wells up to 300 feet deep usually provide adequate water for the domestic needs of one household (about 500 gallons per day). The yield of a particular well is a function of the cracks and fractures encountered, but it is impossible to predict these features from the surface. Deep wells in low-lying areas may risk salt water contamination. Storage facilities may be necessary if bedrock wells are used for supply where peak demand exceeds the capacity of the well. Water from bedrock wells frequently requires no purification treatment although standby chlorination facilities should be provided as part of public supply systems.

C. Ground-Water Exploration

Further exploration may be warranted in alluvial areas to measure the thickness and nature of the alluvium. Well design in alluvial areas should be adapted to the thickness and particle size distribution of the alluvium. Seismic refraction techniques are the most useful geophysical method for locating the buried alluvium/bedrock contact. In areas near the shore where alluvial deposits are deep and sea water intrusion into the aquifer is possible, electric resistivity soundings could be useful to locate the fresh water/sea water interface within the alluvium.

The only other appropriate method of exploring for ground water in either the alluvium or bedrock is drilling.

D. Water Development

The following recommendations are provided to guide the development of the water resources in the Chiniak area. If adequate water supply is a critical need of the school, the source should be proven prior to final site selection. Water supplies can be found for all Chiniak sites but the cost of alternative developments will vary. When a prospective site has been selected, a detailed plan for exploration, testing and system design can be undertaken. Detailed recommendations for the design of a water supply system are beyond the scope of this investigation."

Water supply continues to be a critical need of the school. Care needs to be taken to preserve the source of the existing water system and to develop a water system capable of responding to emergencies - as the water supply is currently derived from a groundwater source (creekbed).

Chiniak residents would like the opportunity for the use of alternate waste water disposal systems, as opposed to traditional septic systems, as long as drinking water supplies and the general environment can be protected.

New lots should not be allowed that require engineered septic systems as the failure of these systems (and traditional septic systems) in the past has created significant problems for owners and neighbors.

GRAVEL EXTRACTION

Currently gravel extraction occurs in locations outside the planning area boundaries. Chiniak residents have expressed a preference that when gravel extraction occurs that it continue to occur at the traditional site, which is buffered from the major residential areas in Chiniak. This area is located at the old Tracking Station Site across from the old dump. The site is located on private land. Future sites may need to be developed to support the growing community. Any new sites should be completely buffered from any nearby residential uses.

PUBLIC LANDS

Recreation/Coastal Access:

The Chiniak area is frequently used by residents from the entire road system for its recreational qualities. This creates a need for the control of illegal activities (i.e., creek robbing and wanton waste of fish and game) and regulation to protect the destruction of public and private property (littering and worse) and the disruption of local residents' serenity by three-wheelers and other types of recreational vehicles.

Chiniak residents are interested in the development of additional "local" recreational facilities. Most beaches in the Chiniak area are private property, and therefore adequate pedestrian access to and acquisition of land for public parking and other facilities near these beaches should be a priority of the Borough. Sites identified as having high recreational value are: Roslyn Beach, Twin Creeks, Chiniak River and Thumb's Up (Rocky Bay). Efforts should be made to purchase or otherwise legally secure such lands in order to guarantee maximum use of these lands by the public. Another priority interest of the community is the designation and development of neighborhood park areas to meet the growing needs of the community. Neighborhood parks should be acquired and developed in existing subdivisions and dedicated in new subdivisions. In the future, areas used for recreational purposes should be identified whenever Borough land is considered for disposal and/or development.

The community survey highlighted an additional recreational facility need - that of an outdoor rifle/shooting range. Since the requirements for such a facility are significant, considerable investigation is necessary in order to identify an appropriate site. Although the community is not looking for a "regulation site," safety is of prime consideration in site selection.

Community Facilities:

Lack of public lands in the vicinity of U.S. Surveys 3471 and 3472 needs to be remedied. Additional public lands are needed in this part of the community for a combined fire protection/EMS/tsunami safe site since one public facility at the school site will not provide adequate protection for the length of Chiniak. There is a critical need to have two facilities, one located at each end of the Chiniak community. In terms of the existing community facilities, the library, which is also used as a community meeting place, needs upgrading to bring it into compliance with the building code. A refurbished or new community center at this site could also serve as the base of operations for future fire protection, ambulance service and a tsunami safe site.

Solid Waste Disposal:

In the near future, Chiniak residents will receive garbage collection service from the Kodiak Island Borough, under their nonareawide "garbage powers." In the past, Chiniak residents used the old Tracking Station dump site for garbage disposal. However this site was closed, due to lack of proper permits (and operation), adequate equipment, and the conveyance of the site to Leisnoi Corporation. This left Chiniak residents without a suitable landfill.

In 1983, a group of concerned residents asked the Kodiak Island Borough to apply for a RDA grant to develop an alternative landfill site. At the time, the Kodiak Island Borough chose to submit an application for another project. As an interim measure a "dumpster service" was established by the Chiniak Community Forum in 1986. This service will continue until the Kodiak Island Borough takes over the function.

As Chiniak continues to grow, the need for a "local" landfill and disposal (baler/incinerator, etc.) facility should be explored. The feasibility of such a facility and service should be studied in conjunction with the identification and designation of a suitable site.

Historic Sites:

In addition, historic areas of Chiniak should be identified and preserved for future generations. Archaeological sites in particular should be identified. Local residents have suggested that the bunkers at Cape Chiniak may be of historical value.

COMMERCIAL DEVELOPMENT/INDUSTRIAL DEVELOPMENT

The Chiniak community recognizes a need for these two types of development, in limited areas, for limited purposes. An example of this concern can be seen in the previous section on gravel extraction, which is an industrial land use. The community would like to see commercial development that is small scale and community services oriented, in selected locations, in order not to negatively impact the residential character of the community. This concern is even more true in the area of industrial development. The community is only interested in supporting industrial development that is associated with the fishing industry. Thumb's Up (Rocky Bay) is the area that has been identified as the commercial and subsistence fishing staging area, for the community. The upland area of Thumb's Up Bay is currently in private ownership. The need for clear legal access to the area, which is the only suitable staging area in Chiniak, is of the highest priority to Chiniak residents. The community also strongly supports the development of home occupations on residential lots as a supplement to the economic base of the community and the opportunity for limited direct commercial activity by residents in the community.

GOALS AND OBJECTIVES

Goals are statements that represent ideal conditions that community residents would like to retain or achieve; objectives represent the means for achieving the goals; these goals and objectives serve as the basis for decision-making and the formulation of a land use plan. Further, these goals and objectives are the result of community participation and the previously identified issues and needs.

The overall purpose of the Chiniak Comprehensive Plan is to provide for the orderly growth and development of the community by encouraging low density residential land development and associated support land uses while maintaining the rural nature of the area.

The community further desires to preserve the natural environment (e.g., spruce forests, mountains, streams and beaches); maintain historic subsistence uses; and enhance wildlife habitat while allowing resource development, fishing, recreation, livestock grazing and related activities, where appropriate.

A. GENERAL LAND USE GOALS

Goals:

To ensure that the natural environment of the Chiniak area is protected and enhanced by eliminating existing sources of environmental degradation and to discourage future actions by private and public entities that might adversely affect the environmental quality of the Chiniak area (e.g., septic system failures, the KEA powerline).

To encourage development that provides a safe and aesthetically pleasing community.

Objectives:

Objective: Zoning regulations should be used as a method of implementing these land use goals and objectives. Active zoning enforcement of the regulations should be encouraged.

Objective: Development which may result in increased surface or shore erosion should be prohibited.

Objective: Erosion prevention measures should consist of "appropriate" materials and the use of junk should be prohibited.

Objective: Except for activities that are water dependent, beaches should be kept free from permanent development.

Objective: Development should not create "off-site" drainage problems.

Objective: Development which may significantly degrade water quality should be prohibited.

Objective: Dredging and filling should be avoided if a potential for significant ecological damage exists.

Objective: Man-made changes in topographic, soil or geologic conditions which may endanger lives or property should be prohibited.

Objective: Activities which would generate noise, excessive light or glare, or other negative impacts that would adversely affect human or wildlife populations should be prohibited.

Objective: Regulations that will preserve natural land forms, existing vegetation, archaeological resources and other environmental resources of the Chiniak area should be adopted.

Objective: Regulations that provide for buffers along all streams and marine shorelands in order to reduce bank stabilization and drainage problems should be implemented.

Objective: Regulations that encourage the selective cutting of timber along streams in order to prevent erosion should be implemented.

Objective: Wetlands, including waterfowl nesting and feeding areas, should be protected.

Objective: Tideflats should be preserved in their natural condition.

Objective: Regulations that promote development that is consistent with the natural features of the land should be implemented.

B. RESIDENTIAL LAND USE GOALS:

Goals:

To retain the rural, large lot, residential character of the community.

To provide rural residential neighborhoods with small park facilities, free of intense commercial and industrial land uses.

Objectives:

Objective: Regulations should be adopted that will not allow the removal of gravel from residential property beyond what is necessary for sensible lot development. Disturbed areas, not covered by dwellings, should be revegetated.

Objective: Overburden and gravel removed for the development of new roads, etc., should not be disposed of in residential areas. It may be used to help develop building sites, driveways and access roads or to fill low or marshy areas.

Objective: Newly created residential lots should contain enough lot area to provide for onsite septic disposal (<u>without</u> requiring that the systems be engineered) and onsite potable water or the subdivision should be required to provide adequate <u>community</u> waste water disposal and water supply systems.

Objective: Newly created residential lots should be a minimum of two (2) acres in size, in order to maintain the rural atmosphere of the Chiniak area.

Objective: Home occupations that do not infringe on the neighbor's "tranquility" and right to a "rural atmosphere" should be encouraged.

Objective: Existing residential lots in the area should not be allowed to be further subdivided.

Objective: Regulations should be developed for planned unit developments, for large tracts of land (20 acres minimum), that allow smaller lot sizes and

alternative residential structures, while maintaining a maximum density of one dwelling unit per two acres.

Objective: Opportunities for "alternate" waste water disposal systems (e.g., outhouses, etc.) should be provided.

Objective: The general pattern of existing land uses should be maintained while providing suitable areas for expected community growth.

C. DEVELOPMENT LAND USE GOALS:

Goals:

To encourage economic enterprises and land uses that are compatible with present and future residential land use areas.

To encourage a planned development area suitable for shore based fisheries related operations and support.

To encourage business development in selected locations (i.e., stores, restaurants and gas stations) on the Chiniak road.

To encourage home occupations/cottage industries that do not have negative impacts on the residential character of the area.

Objectives:

Objective: Areas for future commercial development and expansion should be designated.

Objective: Upland acquisition and development of the Thumb's Up (Rocky Bay) area by a public agency for use as a boat launch and staging area for subsistence, commercial and sport fishing should be a land use development priority.

Objective: Development should be encouraged to meet aesthetic standards or required to fence the site.

Objective: Continued use of the traditional gravel pit at the old Tracking Station should be encouraged.

Objective: Marine oriented businesses, including but not limited to small scale fish processing, boat repair and light manufacturing should be encouraged.

Objective: Development that may cause pollution or has a potential for accidental pollution should be regulated to prevent negative impacts on the community.

Objective: Marine related developments should be coordinated to minimize the amount of development required.

Objective: Commercial logging operations should require adequate buffers from residential and public land uses and public roadways.

D. PUBLIC LANDS GOAL/RECREATION

Goals:

To provide public lands for the present and future needs of the Chiniak community.

To plan for adequate parks in local neighborhoods, shore areas and other suitable areas of Chiniak.

To encourage the designation and protection of historic areas in the Chiniak area.

To maintain subsistence use areas and recreational and cultural opportunities.

Objectives:

Objective: The identification and protection of a watershed area for future residential and development needs in Chiniak should be investigated.

Objective: The need for land for cemetery use should be explored.

Objective: Public lands for hiking trails, beach access, beach/park areas, picnic areas, and a boat launch area with clearly identifiable markers should be identified, acquired and developed for public use; when such use will not conflict with adjacent property.

Objective: Land for neighborhood parks in existing residential areas should be acquired and developed and dedication of neighborhood parks in new residential areas should be required.

Objective: Historic sites and area landmarks should be identified and preserved.

Objective: Recreation and park development at the school site should continue.

Objective: An area for community gardening should be identified.

Objective: Facilities for cultural and recreational pursuits should be encouraged.

Objective: Licensing and further regulation of two, three and four wheel all terrain vehicles to prevent environmental destruction of private and public lands should be implemented.

Objective: The enforcement of regulations for sport fishing and hunting to ensure that an over harvest of these resources does not result in their decline along the Kodiak road system should be encouraged.

E. PUBLIC SERVICES, FIRE PROTECTION AND EMS GOAL

Goals:

To identify public service needs and to promote the delivery of services to meet the needs of area residents (e.g., dog control, police protection, road improvement and maintenance, and garbage disposal).

To plan for the future solid waste disposal needs of the Chiniak community.

Objectives:

Objective: The need for a sewage treatment plant in Chiniak to meet possible future requirements should be explored.

Objective: The feasibility of a solid waste disposal facility (baler/incinterator, etc.) to meet future needs should be studied.

Objective: Roads should be upgraded and maintained year-round to accommodate local traffic and to meet state and federal safety standards.

Objective: The school site should be developed as a tsunami safe-site. This facility should also contain a new community library and public meeting space (community center), and staging area for EMS and fire protection services. A second "public safety" site and public facility location should be identified at the "town end" of the community in order to serve the entire Chiniak community efficiently.

Objective: Fire protection for all residents in the area should be available to the highest standards, including future development of fire protection services/facilities at both ends of the Chiniak Community.

The Chiniak Comprehensive Plan provides for a variety of long-term land use designations to meet the goals and objectives of the Plan. This Plan is a general guide for the future development of the Chiniak area. It provides for the future development and growth of the area, while at the same time striving to preserve the existing rural residential lifestyle of the area. The Plan reflects a ten (10) year time frame. It should be reviewed and revised, on a periodic basis, as community conditions and desires change. The plan is depicted on Map 7 (page 62).

The Chiniak Plan identifies four (4) general planning categories; residential, commercial, marine industrial and public. The specific description of each of these categories is provided below.

A. RESIDENTIAL

The largest portion of the planning area has been designated for residential land use. The purpose of this designation is to preserve the existing character of the Chiniak area, while permitting economic expansion in other areas of the community and through the encouragement of home occupations. In order to maintain the rural nature of the area, future residential subdivisions should be designed with large lots (two acres, plus) that have the capability for onsite, non-engineered, waste water disposal and water supply systems, or connected to community sewer and water systems. The community also strongly supports the opportunity for residents to develop and install alternative waste water disposal systems on residential lots.

Alternative types of development (planned unit developments) should be allowed in these areas if the project is greater than twenty (20) acres in size and the

overall project density is not greater than one (1) dwelling unit per two (2) acres. Although neighborhood parks are not specifically identified in existing and proposed residential areas, neighborhood parks should be part of every residential area. As noted earlier, home occupations/cottage industries are strongly encouraged in residential areas to supplement the local economic base while preserving the community character, as long as these uses do not infringe on adjacent residential properties.

B. BUSINESS

Business areas have been identified in areas close to but not in conflict with the designated residential areas. The business areas have been identified for two general types of functions: small local business to serve the Chiniak area, and recreation/tourist oriented businesses to take advantage of the scenic and recreational qualities of the area. The designated business areas provide somewhat of a buffer between the designated residential areas and the area designated for marine industrial uses. The two locations selected for this planning category are in the vicinity of the existing post office and the "Road's End." Future business development (other than home occupations) should be located in these two areas, creating "nodes" of development rather than "strip" development. An additional business area in "central" Chiniak may be considered in the future if there is a demand. This area has been identified on the plan map as "business reserve."

C. MARINE INDUSTRIAL

A compact area in the Plan has been designated for marine industrial use in order to allow for on-shore support for commercial fishing activities, such as fishing gear storage and repair, processing and related manufacturing. This area has been

identified in order to allow for the additional economic expansion of the Chiniak area.

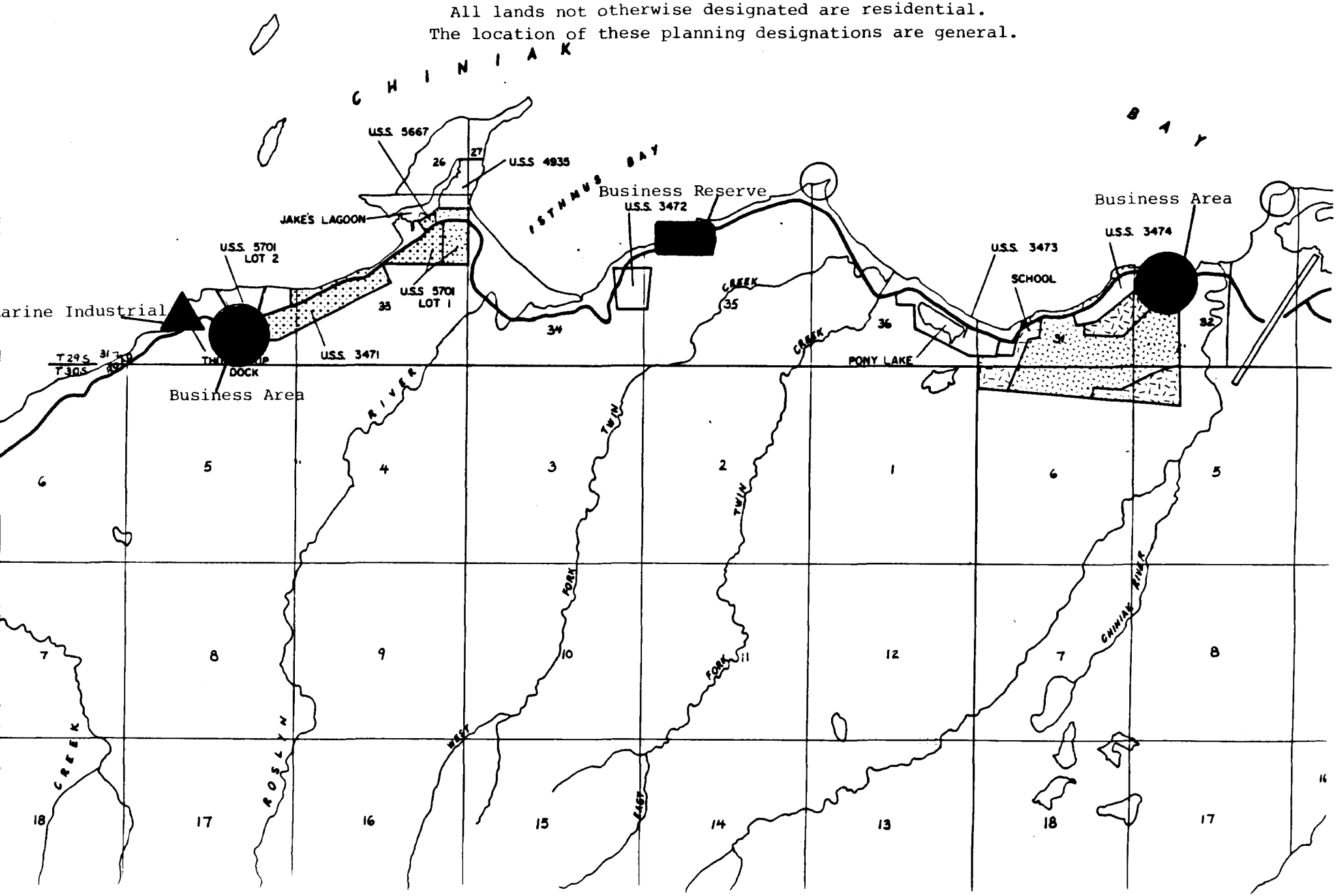
D. PUBLIC LANDS

These lands include all those lands required in order to provide needed public facilities for both the residents of the area (neighborhood parks, school and emergency services sites) and for residents of the Kodiak Island Borough (regional parks and beach access). These are lands that are generally in public ownership or public access is permitted and should be developed for public use where appropriate. An exception is the public land need identified on the "town" side of Chiniak. In this area, all of the land is privately owned and a suitable site for public purposes will require acquisition by a public agency. In addition, many traditionally used recreation areas are also in private ownership. If these areas are to remain open for maximum public use, public action is necessary to secure the legal right for the public use.

In addition, community needs for a stable water supply need to be recognized through the investigation of water characteristics in the area, supply needs and regulations to protect the water supply system.

MAP LAN MAP

All lands not otherwise designated are residential.
The location of these planning designations are general.



IMPLEMENTATION

For any plan to be effective it has to be implemented; that is, used, as a decision-making tool. The Kodiak Island Borough has several methods available for implementing any land use plan. The most common and most often thought of tool is zoning regulation, but in the case of the Chiniak area, the Borough can also implement the Plan through a comprehensive land disposal/acquisition program. Zoning is a much more important tool for plan implementation for those lands that are not controlled by the Kodiak Island Borough through land ownership.

The Chiniak Comprehensive Plan is a long-range plan (10 years); therefore, the realization of the land use plan and the goals and objectives of the Plan may take this long to achieve. Since development can take place quicker than this, the plan provides guidelines for land use decisions by both the Kodiak Island Borough Planning and Zoning Commission and the Kodiak Island Borough Assembly.

This plan does not recommend any immediate changes to the existing zoning in the area (see existing zoning map, Map 5). It is anticipated that as development pressures on portions of the area become stronger, specific areas in the community will be rezoned consistent with the land use plan described in the previous section.

Zoning regulations are ultimately expected to be the major implementing tool for the Plan and the goals and objectives contained in the Plan. However, to fulfill many of the current and future needs of Chiniak residents, and to fully implement this plan, land must be acquired for public facilities and uses.

The purchase, exchange or lease of specific lands that are privately owned are of great importance to the community. The "acquisition" of these lands will not only provide for the safe and orderly growth of the Chiniak area, but will also enhance the entire Kodiak community.

As identified previously, and prioritized below, the following sites should be "acquired" for public use and development.

1. Uplands at Thumb's Up Bay (Marine Industrial Site).

2. An adequate site in the vicinity of Mile 35 for "community facilities" (EMS, fire service, community meeting place, tsunami safe site).

3. Land at the mouth of Roslyn River and other areas in the area for continued recreational use.

4. Needed land for watershed protection, sewer treatment, solid waste disposal, and additional recreation sites, including an area for recreational shooting. Selection and designation of these sites requires additional study, beyond the scope of this plan, but it is likely that any land identified for these uses will be held in private ownership, and some agreements (acquisition) for public use will have to be worked out.

5. Additional Borough-owned land at Mile 41 (in proximity to the school) should be dedicated for the following uses: tsunami safe site, EMS, fire service, possible cemetary and community garden area.

Detailed below are some recommended changes to the Borough's zoning and subdivision regulations necessary to adequately implement this Plan.

A. RESIDENTIAL REGULATIONS

1. Continue to provide a rural residential zoning district that does not allow lots less than two acres in size (zoning).

2. Prohibit residential lots from being clear-cut by implementing regulations that preserve the natural topography and the amount and location of trees on lots to the greatest extent possible (zoning).

3. Require residential subdivisions to dedicate useable acreage for neighborhood parks and other public purposes (subdivision).

4. Require residential subdivisions (where appropriate) to dedicate or provide public access easements to and along the ocean, lakes, creeks, and streams (subdivision).

5. Implement planned unit development regulations that will allow alternative types of development, while requiring a minimum density of two acres per dwelling unit.

B. BUSINESS REGULATIONS

1. Create a new business district that is primarily for "neighborhood commercial" uses (services which meet the needs of the local residents) (zoning).

2. Require all business to provide a buffer (preferably natural) adequate to mitigate the sight and noise of the business use from any adjacent residential use (zoning).

C. INDUSTRIAL REGULATIONS

1. Create a "marine industrial" district that would permit uses like fish processing, warehousing, fishing gear storage and repair, and light manufacturing, but would not allow noxious uses, like chemical manufacturing or material fabrication (zoning).

2. Require all industrial uses to provide a buffer (preferably natural), adequate to mitigate the sight and noise of the industrial use from any nearby residential use and/or impacted business use (zoning).

3. In particular, require commercial logging, quarrying and other "heavy industrial uses" to provide a buffer of fifteen hundred (1500) feet from any residential and public land use and public road ways (zoning).

D. PUBLIC LANDS REGULATIONS

1. See residential regulations (zoning).

2. Create a new zoning district for open space, park and recreation areas that establishes regulations specifically for these uses (zoning).

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APPENDIX A

CHINIAK COMMUNITY
COMPREHENSIVE PLAN
QUESTIONNAIRE TALLY FORM

Of the approximately one hundred ten (110) questionnaires sent out, twenty-four (24) or twenty-two (22) percent of the questionnaires were returned. Responses to the questionnaires are tallied below, and the percentage of respondents answering each item is also noted.

1. Are you aware that a comprehensive plan is being drafted for the Chiniak Community?

   YES: 23 (95%) NO: 0 (0%) NOT ANSWERED: 1 (4%)

2. Why did you choose to live in the Chiniak Area? (Mark as many as are appropriate.)

22	Country lifestyle	92%
22	Scenic/secluded location	92%
16	Large lot size	67%
13	Less restrictions	54%
12	Quality of educational facility	50%
6	Other Comments:	25%
4	Investment potential	17%
1	Less restrictions?	4%

I like it.
Quality of roads.
My job is here.
Distance from town/base.
No phones.
Land owner.

3. How long have you lived in the area?

14	Five or more years	58%
3	Three to five years	13%
3	One to three years	13%
1	Less than one year	4%

Other replies:

2	Not yet, but own property	8%
1	Not applicable.	4%

4. Do you consider the Chiniak Area your permanent home?

YES: 18 (75%) NO: 5 (21%) NOT APPLICABLE: 1 (4%)

COMMENTS: Hope to soon.
Home for sale.
Some day.

5. Do you own property in Chiniak, but have a permanent home elsewhere?

YES: 5 (21%) NO: 18 (75%) NOT ANSWERED: 1 (4%)

WHERE: Emmonak, Alaska
Kodiak (two)
Montana
Corporation land owner

6. If you live in Chiniak, do you own or rent your home?

OWN: 18 (75%) RENT: 3 (13%) NOT ANSWERED: 2 (8%) NOT APPLICABLE: 1 (4%)

TWO COMMENTS: Rents now, but owns a lot to build on.
Am building home now.

7. Do you feel Chiniak will continue to grow?

YES: 20 (83%) NO: 3 (13%) NOT ANSWERED: 1 (4%)

WHY? 17 responses were received:

50%	12	powerline
29%	7	borough and native lands becoming available
17%	4	people seeking country lifestyle
13%	3	limited growth potential on Kodiak Island
8%	2	services now available (i.e., school, library & post office)
4%	1	growth occurring everywhere in the state
4%	1	the subdivision of larger lots into smaller lots

WHY NOT? 13% 3 responses were received:

1 people are developing and living on land now available
1 limited amount of real estate
1 not in the foreseeable future

8. What is the location of your primary place of work?

63%	15	Town/Base	4%	1	Anchorage
17%	4	Chiniak	4%	1	Statewide
8%	2	Retired	4%	1	Kalsin Bay

9. What do you feel is the one most important issue facing the Community of Chiniak?

23 (95%) Commented on this issue:

Need to establish goal.
To complete the comprehensive plan.
Too many people.
To keep all needs met and to keep it a thriving, safe community.
Maintaining community lifestyle.
Logging.
Planning for future growth.
Speed limit signs.
Is the Borough going to make Chiniak like Kodiak?
Stop DeVille and save Thumb's Up for our community.
Development of a workable comprehensive plan getting everyone to organize and agree...one that town must ab e by in their decisions.
Speed signs for residential areas. Omar Stratman's cows roaming areas he does not lease.
Sanitary landfill, fire protection and other services; along with preserving "Chiniak" lifestyle.
A well-rounded community plan with community review - ensuring a good education for our children.
Controlling our own growth versus imposed Borough controls and regulations.
Growth and associated political and land use issues.
Zoning! The possibility of too small lots.
Planning for community growth.
Overdevelopment.
Unnecessary development.
Keeping it an area enjoyable scenic wise and physically.
Controlling uncontrolled growth.
To be certain that any comprehensive planning include the active participation of the major land owner in the area.

10. Rank the importance of the below issues by placing a number beside each one. (A lower number indicates a higher priority.) Add or delete items as you deem necessary.

Public access to streams and beaches

1:	2	6:	2	15:	1
2:	1	7:	1		
3:	1	8:	1		
4:	4	10:	2		
5:	5	11:	1		

NOT RATED: 3

Clear cut logging

1:	3	19:	2
3:	1	20:	3
4:	1		
10:	1		

NO: 2
STOPPING IT RATED: 7; 2 AND 3

NOT RATED: 8

Commercial gravel extraction

2:	2	12:	1	19:	1
3:	1	13:	1		
4:	1	15:	1		
5:	2	17:	1		

NO: 2

NOT RATED: 11

Sanitary landfill

1:	2	8:	3
2:	1	9:	1
3:	3	10:	1
6:	1	14:	3

NO: 1

NOT RATED: 8

Recreation areas (designation and management of)

1:	2	6:	1	16:	1
2:	1	8:	6		
3:	1	9:	2		
4:	1	10:	1		
5:	4	16:	1		

NONE: 1

NOT RATED: 4

Fire protection

1:	4	8:	2	50 =	1
2:	4	9:	1		
3:	2	10:	1		
4:	1	11:	2		
6:	1	13:	1		

NOT RATED: 4

Emergency medical service

1:	2	9:	2		
2:	4	12:	4		
3:	1	13:	1		
6:	1	9:	2		
7:	3				

ZERO: 1

NOT RATED: 5

Industrial development

3:	1	17:	1		
4:	1	19:	1		
10:	2	20:	1		
15:	1				
16:	1				

352: 1
NO: 2

NOT RATED: 11

Development of Thumbs Up area

1:	1	7:	2	14:	1
2:	2	8:	1	20:	1
4:	1	9:	1		
5:	4	10:	1		
6:	3	13:	1		

NOT RATED: 5

Septic systems

2:	2	9:	1	18:	2
3:	2	12:	2	20:	1
4:	1	15:	1		
5:	2	17:	1		

99: 1

NOT RATED: 8

Watershed areas

1:	2	7:	2	13:	1
2:	2	8:	2	16:	1
3:	2	9:	1	18:	1
4:	2	10:	1		
5:	1	11:	1		

98: 1

NOT RATED: 4

Village Public Safety Officer

1:	1	9:	1
3:	1	14:	2
5:	1	15:	1
6:	2	17:	2
8:	1	18:	1

100: 1

NOT RATED: 10

Home occupations

2:	3	7:	1	11:	1	15:	1
3:	1	8:	1	12:	1		
4:	1	9:	1	13:	2		
5:	2	10:	1	14:	1		

NOT RATED: 7

Tsunami "safe site"

2:	2	6:	1	11:	2	19:	1
3:	2	8:	1	12:	1		
4:	1	9:	1	13:	1		
5:	2	10:	1	15:	1		

NOT RATED: 7

Emergency disaster planning

1:	1	7:	1
2:	2	8:	1
3:	1	9:	3
5:	3	10:	2
6:	2	11:	1

NOT RATED: 7

Preservation of rural community

1:	10	6:	1
2:	2	10:	2
3:	1	11:	1
4:	2	15:	1
5:	1		

NOT RATED: 3

Maintaining quality of a "Chiniak lifestyle"

1:	12	12:	1
2:	3		
3:	1		
4:	2		
5:	3		

NOT RATED: 2

Planning for Commercial development

1:	1	13:	1
3:	3	15:	1
7:	2	16:	2
9:	1	17:	1
10:	1		

NO: 1

NOT RATED: 10

Making more Government lands available for public sales

2:	1	7:	1	12:	1	17:	1
3:	2	8:	2	14:	1	20:	1
5:	1	10:	1				

NOT RATED: 12

Creating more public recreational areas

1:	1	6:	1	11:	2
2:	2	7:	2	13:	1
3:	1	8:	2	18:	1
4:	1	9:	3		
5:	2	10:	1		

NOT RATED: 4

Designation of some Borough owned land for future public facilities

1:	2	6:	3	11:	1
2:	2	7:	1	12:	1
3:	1	8:	1		
4:	1	9:	3		
5:	4	10:	2		

NOT RATED: 2

ADDITIONAL COMMENTS RECEIVED ON QUESTION #10:

If there has to be commercial development, I would like it to be carried on in a manner as to blend in with our community lifestyle and environment.

Anticipation of growth impact on school (rated at 11).

Discourage town/base visitors, their trash, their speed (rated at 1).

Keep out "small lot" developers (rated at 1).

Maintain and augment quality of education (rated at 1).

Get the squatters out (rated at 1).

11. What minimum lot size would you like to see for future residential subdivisions?

1 acre	= 2 8%	1 - 1.5 acres	= 1 4%
2 acres	= 9 38%	2 - 2.5 acres	= 1 4%
3 acres	= 1 4%	2 or more acres	= 1 4%
4 acres	= 1 4%	2 - 3 acres	= 1 4%
5 acres	= 3 13%	2.5 - 3 acres	= 1 4%
10 acres	= 1 4%	2.5 - 5 acres	= 1 4%
		3 or more acres	= 1 4%

12. Are you in favor of the future expansion of commercial activities in Chiniak?

YES: 14 (58%) NO: 8 (34%) NOT ANSWERED: 2 (8%)

If so, in what areas would you prefer to see these activities develop?

Post office area or Thumb's Up and Road's End. (4)
Restricted to Mile 35 and Mile 41 areas.
Between Winter Wonderland and Twin Creeks.
Adjacent to but not in designated residential areas.
In City of Kodiak, Bells Flats or Middle Bay areas.

What limitations would you like to see put on commercial type activities?

Light commercial - stores, small businesses.
Cottage industry should be encouraged.
Pollution control.
Fishing and tourism.
Mom & Pop grocery store, gas station, nothing more. Basic services only, nothing more.
Commercial fishing activities around Thumb's Up Dock (storage space and boat ramp).
Telephone and T.V.
If in expansion we can limit land used in this designation to preserve the lifestyle of the area.
Limit business to support services and recreation, grocery, laundry, restaurants, motels, lodges, liquor store, sporting goods, etc., gas station; no clear cut logging, no industrial without community approval; no commercial rock extraction except where it now exists (site).
Very limited - keep commercial development in areas where it is already established.
Existing laws on liquor licenses are sufficient.
Cottage industries on people's own property.
Do not believe that limitations per-se are necessary.

13. Are you in favor of Home Occupation businesses (cottage industries)?

YES: 19 (79%) NO: 3 (13%) NOT ANSWERED: 2 (8%)

How would you define this type of business?

Widest possible parameters, ask your neighbors before you start up; feel out the community.
Small business types - crafts, accounting/bookkeeping, any office occupation that does not require a lot of space, depending on lot size.
Something done in the home.
Business development on the same site as residence; two employees maximum; activities to be allowed should cover small industrial businesses, retail businesses, restaurants.
Small home business with one employee.
Business in one's home (or on lot) that occupies family members and is not objectionable to neighbors because of noise, pollution, etc.
Cottage industries is just fine.
Two outside employees other than family.
Low-key, out-of-sight.
Self employment with certain skills.
An occupation (commercial) operated out of one's own home supplying a needed service or goods to the neighboring area.
An industry which has only one or two extra cars at the home: hairdresser, bookkeeper, consultant, bed and breakfast, etc., not including welding shops, rock extraction or sawmills.
Private residences only, no outside non-family employees. If you want business, move out of Chiniak.

No display area for sales, consent of neighbors for large projects.
Small - one or two employees.
Country store and service station.
Any business that is beneficial to the community without causing disturbances.
Fishing activities and crafts.
Provided they are compatible with the character of the area in which they are located.

14. Should an area be set aside for commercial or public rock extraction?

YES: 13 (54%) NO: 9 (38%) NOT ANSWERED: 2 (8%)

Where?

In keeping with aesthetic and environmental considerations.
Where there is good rock and poor visibility.
Commercial extraction limited to lot acreage over 100 acres.
Public extraction at Thumbs Up?
Near the new dump and not seen from the highway.
Dump site.
If we need it.
If there is a good spot for this.
Two indicated: Where is the question.
By the old dump if possible, if that's not possible then no.

No, not within a residential area.
Two answered: No, utilize existing Leisnoi facility at the tracking site.
No, but if needed badly should be back from road.

15. Should an area be designated industrial?

YES: 7 (29%) NO: 12 (50%) NOT ANSWERED: 5 (21%)

Where?

Thumbs Up.
Cape Chiniak, head of Kalsin.

What kind of industry?

Fishing-related. (3)
Airport, shops, gas station.
Airport.

How do you define industry?

Making a product to sell.
Any industry/manufacturing involving more than three people.
I prefer not to define it as pulp mill or smelter.

Other comments:

If an interest exists in this endeavor, we should not prohibit industrial areas; however, restrictions may be necessary to preserve what we already have.
Absolutely not! "Industry" is anything that desecrates rural lifestyle or deposits trash..."Thumbs Up" is "Industry."
Designation of any area must fit an overall comprehensive plan that looks 20 to 50 years to the future.

16. What public recreation facilities are needed in the area? Where would you suggest these facilities be located?

Community hall at school/library.
Picnic tables/waterfront and cliff beaches/water availability at popular sites.
An overnight campground near the beach.
Open areas for public, no need to build facilities, a few picnic tables and trash cans.
RV park (Roslyn), 3-wheeler park (Twin Creeks); picnic (Chiniak Creek, Pony Lake, etc.)
Safe water and restroom facilities in areas where people congregate to fish, picnic, etc.
Trash cans near the beach; camping and picnicking sites.
A park at the school area for multiuse and some beaches.
Picnic area with dumpsters. Let the Chiniak Community Forum decide the location.
Picnic area at Silver Beach; camping area at Roslyn (from the bridges and road to the beach; historical sites at the end of the runway maintenance; and ballpark and recreational area.
Anything since there's nothing: Thumbs Up, Roslyn, Pony Beach, one in each area of the community.
Roslyn - camping, picnic; Myrtle Creek area - camping, picnic; Twin Creeks - camping, picnic.

Designated area for public shooting range, placed somewhere with safe backstop, sides. Restricted land use in adjacent and down-range areas.

The ballfield was about enough; small boat launching ramp would be nice.
Public boat dock and launching facility; fishing, camping, hunting, hiking, KOA camp, park; Silver Beach, Twin Creeks, Myrtle Creek, Roslyn Beach, Chiniak Creek/Beach, Thumbs Up.
Boat ramp at Thumbs Up.
Spot for launching boats, etc., at Thumbs Up; ballpark by the school; family parks and picnic areas.
Boat ramp at Thumbs Up; picnic tables at Roslyn and Twin Creeks.

Boat launch at Thumbs Up; State Park at Roslyn (would include RV hookups)

NOT ANSWERED: 3 (13%)

NONE: 2 (8%)

Unless enforcement be available to police campers and their trash and 3-wheel vehicles.

17. Do you feel that the Borough and the State should initiate purchases/trades with the Native Corporations to acquire lands for recreational, residential or other use?

YES: 20 (84%) NO: 1 (4%) NOT ANSWERED: 2 YES AND NO: 1* (4%)

COMMENTS:

*Yes for recreational and No for residential.
Three answered: Mostly for recreational use.
If doing so benefits both parties.
Better cooperation and utilization of native owned resources that are already available.
Yes, purchase at fair market value.

18. Should the Borough dispose of additional land in the area?

YES: 11 (46%) NO: 8 (33%) NOT ANSWERED: 3 (13%) UNCERTAIN: 2 (8%)

Yes, in a responsible way.
Yes, but wait until Chiniak Comprehensive Plan is in place.
Yes, with careful planning not to flood the market - need to remember impact of sales on schools and road usage.
Yes, if access can be allowed.

19. Since the old dump site at the tracking station has been closed, do you think another disposal site needs to be identified?

YES: 8 (33%) NO: 13 (55%) NOT ANSWERED: 2 (8%) UNCERTAIN: 1 (4%)

Where?

YES: Off road and between Mile 35 and 42 where gravel may be extracted also.
On Borough land away from present or future housing areas.
Near the road camp.
Next door to Bill Robert's.
On native corporation land.
Wherever ADEC will allow.

NO: If one can be found it would be nice, but some type of disposal system should be in place.
Unless it becomes outrageously expensive to have our garbage picked up.

The realities of a dump site are very grim; dumpster seem to work well; burning of trash and Borough tow away of dead vehicles solve most of the problems.
Prefer to continue with dumpsters.
Not as long as trash pick up (dumpsters) is available.
Not at this time.
Dumpsters should be adequate for the size and needs of the community.

20. What Additional topics do you feel are of concern in planning for the Chiniak area?

a. Leisnoi, Inc., is the major private land holder in the Chiniak area. We believe that it is absolutely crucial for the success of any comprehensive plan to include the corporation and incorporate the corporation's development plans in any proposal to the Borough by the Chiniak Community. Leisnoi, Inc., will most likely be ready to participate within the next 90 to 120 days. We sincerely hope that nothing transpires until we have had the opportunity to become involved.

b. Emergency telephone service to Kodiak

c. Speed limits in residential areas; shooting range; camping facilities; boat ramp/harbor; combined transit system, school bus route to town; watershed/hydroelectric issues; enforcement; road improvement.

d. The statutes by which Chiniak is governed should be appropriate to the community of Chiniak; the rules by which town/base people live do not necessarily apply to a bush community. I would like to see an area set aside for recreational shooting that would be free of future residential encroachment. At present the only such facility is located in Monashka. Chiniak has a need for local support of the 4-H shooting program and such a range would also be utilized by Kodiak's muzzleloading group for "living history" encampments. Hopefully a designated shooting area would make beach/residential areas safer.

e. With the interest in hunting and the tourist interest in sporting (hunting, fishing, etc.), it would be great to have a rifle and pistol range available for public. The safety of the residents as well as visitors would be increased by giving people a designated outlet for practice instead of road signs, beaches and people's backyards.

f. With power lines out here we should be concerned with trying to get telephone service also. At least a phone somewhere that anyone could use anytime. Designating an area for moorage of vessels (Thumbs Up or elsewhere), public use. Access to other Borough land that could be opened up in the future.