

*Alaska Department of Community and Regional
Affairs*

INTERIM REPORT

**JUNEAU COASTAL
MANAGEMENT
PROGRAM
PHASE - 1**

CITY AND BOROUGH
OF JUNEAU
PLANNING
DEPARTMENT

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CITY AND BOROUGH OF JUNEAU
PLANNING DEPARTMENT

October, 1977

JUNEAU COASTAL MANAGEMENT PROGRAM - PHASE I

INTERIM REPORT

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FOREWORD

Since the early 1960's, Juneau has been involved in the planning process. The Comprehensive Community Development Plan was adopted in 1968 and has since been supplemented, refined and amended as the demands of a rapidly increasing population required.

In recent years, interest and participation by Juneau's citizens in local decision-making has greatly increased, and the emphasis of the planning program has attempted to reflect the people's concerns with housing, economic diversification, recreation, public transportation, and conservation of the community's outstanding natural environment and scenic beauty.

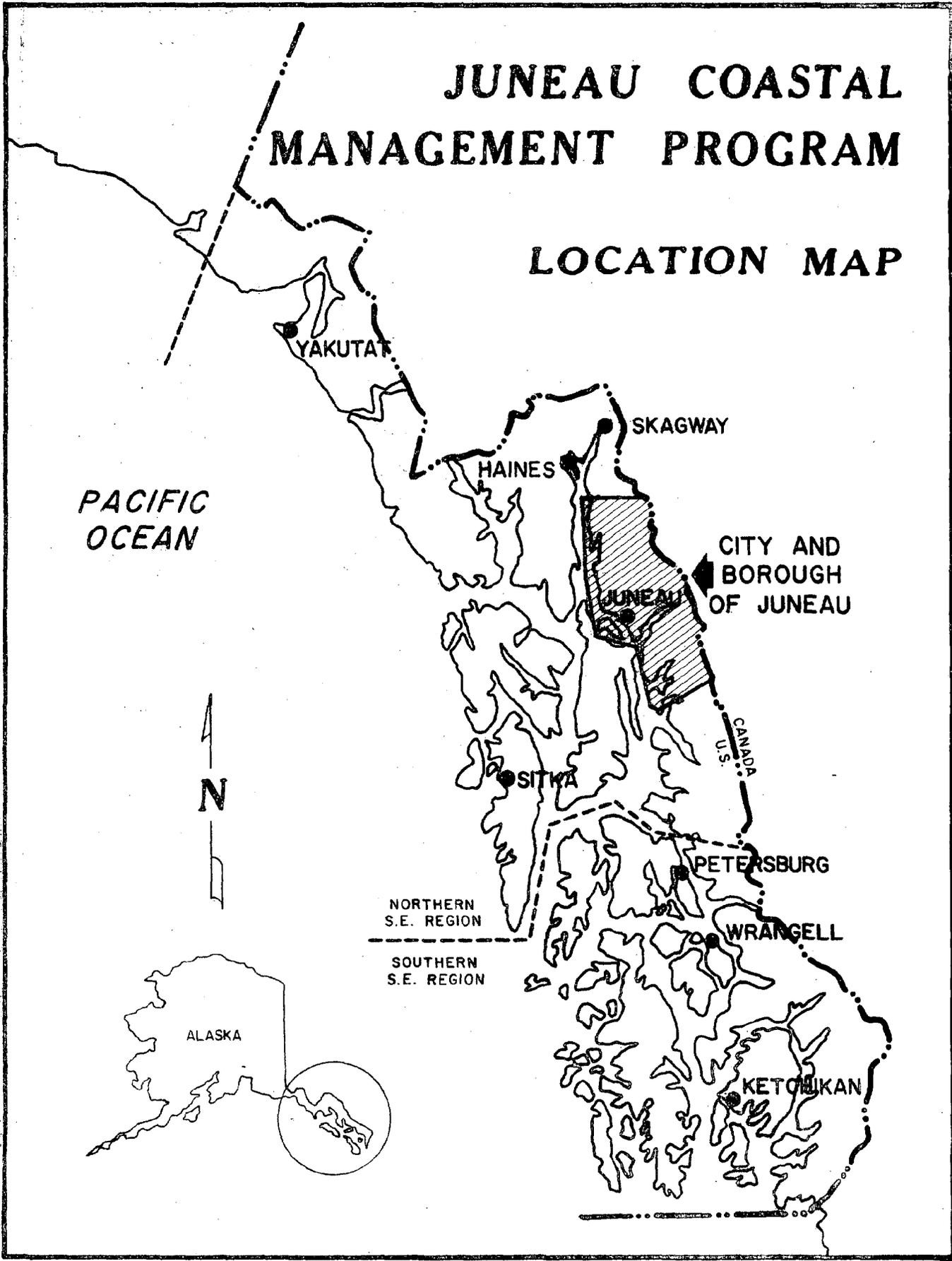
Juneau's over 200 miles of coastline on the waters of the world-famous Inside Passage is perhaps the community's outstanding natural asset; and the use and enjoyment of the coast and its resources constitutes a major factor in Juneau's economy as well as the quality of life of its over 20,000 residents.

The Juneau Coastal Management Program will attempt to identify and analyze the many values of the coastal area; to assess the nature and intensity of the demands likely to be made on finite resources; and with the help of an active and informed public, to develop goals, objectives and policies for a balanced program of conservation and use of Juneau's magnificent coastal area.

This planning effort by the City and Borough of Juneau constitutes the first municipal coastal management program in Alaska, and will hopefully serve as a model for other coastal communities. It is dedicated to the proposition that local citizens, armed with solid information and personal familiarity with the values of the community, can produce a balanced management program that will equitably meet the requirements of all interests in Juneau, and be consistent with broader State and national concerns.

JUNEAU COASTAL MANAGEMENT PROGRAM

LOCATION MAP



I. INTRODUCTION

For a waterfront community such as Juneau, coastal management is a logical extension of an ongoing land use planning program, with particular emphasis on the resources and values contained in the City and Borough's coastal area. Some aspects of the community's concerns with respect to the coastal area have been addressed previously in various planning studies and reports. Relevant components of these documents have been incorporated into this Phase I report.

A. RELEVANT STUDIES

The basic document which establishes goals, objectives and policies concerning land use and community facilities is the Comprehensive Plan, adopted in 1968, and periodically updated.

Plans, reports, studies and other documents that bear on the City and Borough's policies regarding land use are as follows:

- Juneau Waterfront Plan, 1973
- Goals for Juneau, 1975
- Downtown Plan (Draft), 1976
- Geophysical Hazards Investigation, 1972
- Flood Plain Information Reports, 1969, 1971, 1976
- Water Resources of the City and Borough of Juneau, 1971
- Soils of the Juneau Area, 1974
- Juneau Area Housing Studies, 1972, 1976
- Juneau Economic Base Study, 1974
- Juneau Statistical Abstract and Profile, 1977
- Juneau OCS Oil Impact Examination, 1977
- Juneau Parks and Recreation Plan, 1970
- Beach Parks for Juneau, 1975
- Comprehensive Parks and Recreation System Plan; in progress
- Juneau Transportation Study; in progress
- Comprehensive Plan "Updates":
 - West Juneau to Douglas, 1970
 - Norway Point Area, 1970
 - Lemon Creek to Salmon Creek, 1970
 - Lower Mendenhall Valley, 1970
 - Lemon Creek Area, 1973
 - Mendenhall Valley, 1973
 - North Douglas Island, 1975

A number of studies are in progress or scheduled to be undertaken which will have direct application to the development of the Juneau Coastal Management Program. These investigations include:

Tongass Land Management Plan - U.S. Forest Service
Southeast Alaska Transportation Study - State of Alaska
Flood Plain Information Reports - Corps of Engineers for H.U.D.
Juneau International Airport Study - City & Borough of Juneau

Mendenhall Game Refuge Management Plan - State of Alaska
Land Selection Proposals for Echo Cove/Douglas Island - Gold Belt, Inc.
Planning Department Studies, including a Gravel Resources Study,
Land Selection and Management Policy Study, and a Long-Range Small
Boat Harbor Plan.

Close coordination will be maintained with the agencies preparing these reports so that their conclusions may be considered and, where appropriate, incorporated into the development of the Juneau Coastal Management Program.

In addition to these specific Juneau plans, reports and studies, a great deal of literature relevant to coastal management programs throughout the United States has been researched. Appendix A contains a bibliography of source documents.

B. PRELIMINARY DEFINITION OF COASTAL AREA BOUNDARIES

The federal Coastal Management Act of 1972 defines the coastal zone as:

..."the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines" ... "and includes transitional and intertidal areas, salt marshes, wetlands and beaches."
..."The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters".

1. Abstracted from Section 304(a) of Public Law 92-583

This section of the federal Act goes on to specifically exclude lands "the use of which is by law subject solely to the discretion of, or which is held in trust by the Federal Government, its officers or agents." However, the U.S. Forest Service, which controls over half of the linear coastline in the community, and more than three-quarters of the lands in the "primary study area", has indicated its enthusiastic support for the local planning effort, and its willingness to cooperate fully in the development of the Juneau Coastal Management Program.

Juneau's physical geography includes a number of rivers, deltas, creeks, bays, wetlands, coves and other estuaries with a "direct and significant impact on the coastal waters". The many anadromous fish streams located in Juneau, and their biological and economic value to the community, make it particularly important that the ultimate boundary determination be broad enough to beneficially manage this resource in the public interest.

For these reasons, a "planning area" considerably larger than the coastal area is explored in Phase I of the program. The data collected will be analyzed and evaluated, and realistic coastal area limits established in Phase II of the program. The Planning Area (see Map 1) includes lands, streams, watersheds and slopes to about 2,500 ft. elevation; or the "alpine regime" as indicated on U.S. Geological Survey quadrangle maps of the vicinity.

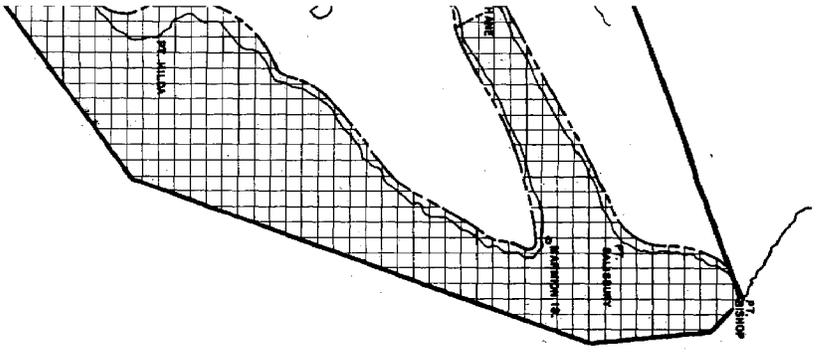
Contained within the larger Planning Area is a "primary study area" (see Map 1) which generally includes the lands between the prime transportation corridor (Glacier Highway, Thane Road) and the shoreline. On Douglas Island, the Douglas and North Douglas Highways form the inland limit of the Primary Study Area, while elsewhere on the islands, the 200 ft. contour serves as the boundary. Data have been collected within the entire planning area so as to obtain a comprehensive overview of the larger area, but the material is researched in considerably more detail within the primary study area.

The Alaska Department of Fish and Game, under contract with the Alaska Coastal Management Office, has embarked on a statewide program to describe the biophysical zones of influence, and to map these ecosystems so as to assist local programs and the statewide effort in understanding the natural processes. This information (which should be available during Phase II of this program) will be helpful in the City and Borough program of establishing definitive boundaries for land use regulation in the coastal area.

C. REVIEW OF RELEVANT LEGISLATION

In response to national interests and concern with the management, beneficial use, conservation and development of the nation's coastal areas, the U.S. Congress enacted the Coastal Zone Management Act of 1972 (P.L. 92-583), which provided guidelines and funding for coastal states to develop and implement coastal management programs. The Act declared that the preservation, protection, development; and, where possible, the restoration or enhancement, of coastal resources are national policy.

Alaska's 34,000 miles of coastline represents over 50% of the total national coastal area. The State Legislature recognized the need to develop a meaningful coastal management program in Alaska; particularly in view of the increasing demands for the use of its mineral and fisheries resources, but was faced with the difficult problem of state/local governmental relations; as vast areas of the coastline are in areas not included in any local governmental jurisdiction. Early attempts to enact a bill establishing strong state management control over the entire coastal zone were met with hostility by local governments and Regional Native corporations as being inconsistent with the established policy of granting maximum possible control of land use regulation to local communities. Not until the 1977 legislative session did a bill emerge that gained sufficient support to become law.



LEGEND



JUNEAU WATERFRONT
PLAN BOUNDARY

PRIMARY
STUDY AREA

PLANNING
AREA BOUNDARY

MAP 1



The Alaska Coastal Management Act (Chapter 84, SLA 1977) establishes a broad framework for development of a state coastal management plan, and provides the opportunity for coastal communities and planning districts to formulate management programs which address specific needs and concerns at the local level. Local programs must be consistent with the guidelines and standards that will be developed by the Alaska Coastal Policy Council. The Alaska Coastal Management Act is included in this report as Appendix B.

The City and Borough of Juneau, a unified municipal corporation, has planning, platting and zoning responsibility under the provisions of Article II, Section 2.1 POWERS; City and Borough of Juneau Charter; pursuant to Alaska Statutes Title 29, Chapter 13 - Home Rule Municipalities. These powers have been implemented, and the land use controls exercised by the City/Borough government include the Zoning Ordinance, Subdivision Regulations, and building, plumbing and electrical codes.

D. DESCRIPTION OF FEDERAL AND STATE AGENCY ACTIVITIES AND RESPONSIBILITIES

The Alaska Coastal Management Program is operated within the Division of Policy Development and Planning in the Office of the Governor. In addition to providing staff services to the newly-formed Alaska Coastal Policy Council, the Office of Coastal Management has responsibility for overall administration and coordination of coastal management in Alaska.

One of the principles of coastal management planning is to utilize to the greatest extent possible, existing governmental authorities and agencies. Within Alaska's state government, a number of cabinet-level departments, as well as divisions and agencies within those departments, have statutory responsibilities that relate directly or indirectly to matters of concern in the coastal area:

Department of Commerce and Economic Development
Department of Community and Regional Affairs
Department of Environmental Conservation
Department of Fish and Game
Department of Natural Resources
Department of Transportation and Public Facilities

The University of Alaska, several of its institutes, and the Alaska SeaGrant Program are also involved in a number of relevant educational and scientific research programs.

An exhaustive treatise with respect to specific duties of state agencies relative to coastal zone management is contained in the two-volume study entitled An Inventory of Existing Land Management Tools in Alaska by the Center for Natural Areas; which was completed in November, 1975 for the Alaska Coastal Management Program office.

Although the Alaska Coastal Management office contacted over 40 federal bureaus and departments with respect to the state's program, only 8 of these agencies are felt to be specifically concerned with the development of a district program such as the Juneau Coastal Management Program:

U.S. Fish and Wildlife Service
U.S. Forest Service
National Marine Fisheries Service
U.S. Corps of Engineers
Bureau of Indian Affairs
National Park Service
Federal Highway Administration
U.S. Coast Guard

Initial informal contact has been made with each of these agencies, and all have expressed their interest in local program, their willingness to provide information, and their desire to participate in a coordinated effort leading to Juneau Coastal Management Program development and implementation.

E. DESCRIPTION OF PUBLIC PARTICIPATION ACTIVITIES

Not only is public participation a specific requirement of both the Federal Coastal Zone Management Act and the State Program, but there is a strong commitment on the part of the City and Borough to the principle of citizen involvement in planning and development programs. It is felt that participation in the development of the coastal management program by the largest possible segment of Juneau's population is vital to the success of the program.

Consequently, a series of public information and input meetings is being planned during the two phases of Juneau's coastal management planning process.

The first of the public meetings was held on September 13, 1977, and was sponsored jointly by the City and Borough and the League of Women voters. The purpose of the initial meeting was to encourage citizen interest and involvement early in the planning process, to inform the public of the various coastal resources being identified and analyzed, and to learn from those in attendance their concerns, priorities and interests with respect to our coastal values.

One of the advantages of an informal public meeting at this early point in the study is that the public learns that no formal plan or policies are being advocated. Bringing the public into the planning process before formal positions are recommended lends credibility to the program, and encourages sustained citizen involvement as alternative management policies are evaluated and recommended.

Another of the objectives of the initial meeting was to explore with those in attendance what additional public involvement techniques might be utilized (citizens advisory committee, special concern task forces, public opinion polls, interviews, public information workshops; or a combination of these), in the development of the Coastal Management Program. (Appendix C contains a summary of the agenda, questions, and comments of the September 13 meeting).

The timing of the three public meetings scheduled for the second phase of program development is such that the input gained from citizens in attendance can make a critical contribution to the recommendations for land and water use standards and policies to be contained in the final program. Additionally, the results of all citizen participation will be incorporated as an appendix into the final Coastal Management Program report. This documented record, which will constitute an integral part of the report, will thus be directly available to the Planning Commission, which is the principal advisory body to the City/Borough Assembly on all land use planning and regulatory matters; to the Assembly itself, and to the Alaska Coastal Policy Council, which must ultimately review all district management plans for consistency with State policies and guidelines.

*

II. BACKGROUND FOR COASTAL PLANNING

A. NATURAL ENVIRONMENT

1. Geography

Juneau is located in the northern part of Southeast Alaska at 58°-18' North Latitude, 134°-25' West Longitude. The community is about 900 air miles northwest of Seattle, Washington and 585 air miles east-southeast of Anchorage.

The boundaries of the jurisdiction, which is a unified city and borough government, encompass 3,108 square miles, of which 928 square miles are icecap, and 704 square miles are water.

The mountainous terrain is heavily forested. Residential, commercial and industrial development is found principally in river and glacial valleys, and on the coastal lands bordering Gastineau Channel and Auke Bay.

2. Geology

The Juneau area consists of three physiographic units; mountains, coastal benches along the fiords and bays, and floors of stream and river valleys. The mountain slopes are quite steep, frequently exceed 45°. These steep slopes merge into more gentle slopes near sea level along the waterways.

Juneau is located in the circum-Pacific Seismic Belt, between the Alexander Archipelago and the Boundary Range physiographic divisions of Southeast Alaska. Geologically, the Boundary Ranges are underlain by the massive granitic Coast Range batholith and thick sequence of highly metamorphosed, youthfully weathered, sedimentary rock; mostly schist, phyllite and graywacke. The active Fairweather - Queen Charlotte Islands Fault lies near enough to affect the Juneau area.

Since the glaciers which covered the Juneau region began to recede, the earth's crust, which was depressed under the great weight of ice, has been rising upward, or rebounding.

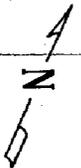
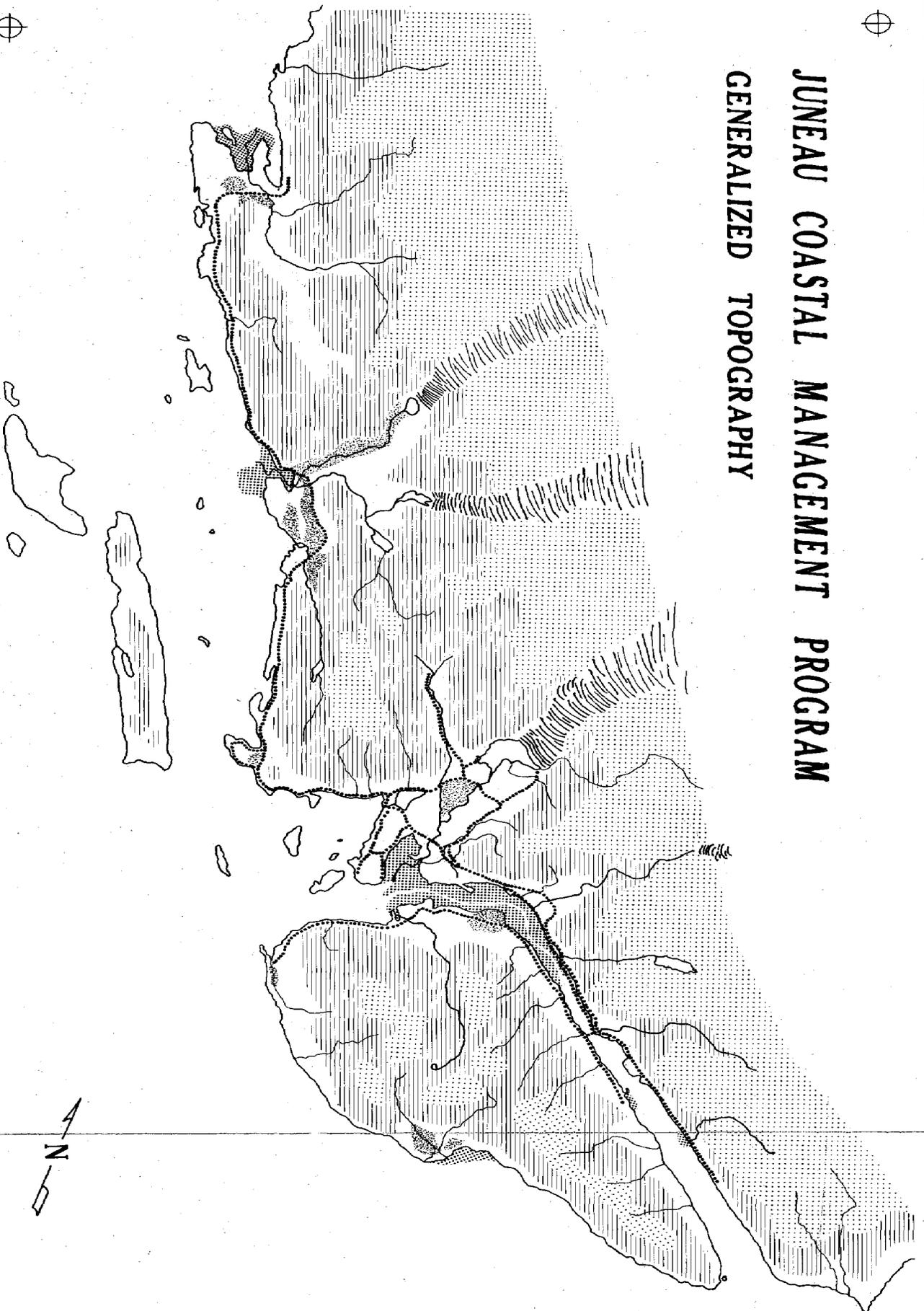
The Lynn Canal-Chatham Strait Fault, the Fish Creek Fault, the Gold Creek Fault and the Gastineau Channel Fault all run through the immediate Juneau area. Although movement along these faults has not occurred in historic time, the area has been repeatedly shaken by earthquakes from more distant epicenters. Between 1899 and 1964, 63 earthquakes are reported as being felt in the Juneau area, with 14 of these seismic events measuring an intensity of IV. or greater on the Modified Mercalli Scale.

3. Topography and Bathometry

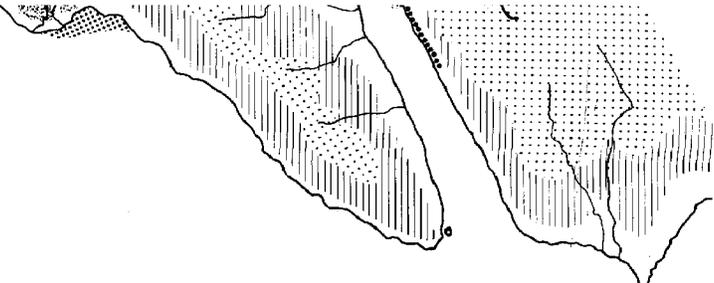
The steep topography of the Juneau area has shaped the community's development patterns more than any other physical factor. The precipitous nature of the Coast Range, literally rising out of the deep fiords of the region, leaves an extremely limited area suitable for urban growth and development. In addition to the original location of the cities of Juneau and Douglas (determined more by the proximity of gold than by prudent planning methodology), a narrow coastal strip, and some glacial and river valleys, including the 4,000 acre valley left by the receding Mendenhall Glacier, are the only areas flat enough to be considered developable land. (See Map 2).

The mountains of the immediate Juneau area rise steeply to about 4,000 feet above sea level. About 7 miles east of tidewater are the vast reaches of the Juneau Icecap which covers much of the high part of the mountain. Less than 40 miles from Juneau, the peaks of the Coast Range reach over 8,500 feet altitude at the Canadian border, which is also the eastern boundary of the City and Borough of Juneau.

JUNEAU COASTAL MANAGEMENT PROGRAM GENERALIZED TOPOGRAPHY



TI
LC SE
MI
SI 5c
AI
GI
M/ 8
CI
M/ 8



LEGEND



TIDAL FLATS



LOWLANDS,
SEA LEVEL TO 500'



MUSKEG



SLOPES,
500' TO ALPINE



ALPINE



GLACIER



MAJOR STREAMS
& RIVERS



CREEKS



MAJOR HIGHWAYS
& ROADS



MAP 2



The depth of water varies substantially in the fiords, channels, bays and estuaries of the Juneau area; ranging from an average depth in Gastineau Channel of 20 fathoms (120 feet), to an extreme depth of 198 fathoms (1,188 feet) in Lynn Canal near Vanderbilt Reef.

4. Soils

Soils in the Planning Area were surveyed in 1974 by the Soil Conservation Service of the U.S. Department of Agriculture.

Broad areas of nearly level soils occur on the flood plains of major streams. Most of these soils are formed in waterlaid sandy and silty sediments underlain by coarse sandy and gravelly materials. The depth of gravel ranges from only a few inches to many feet. Many of the soils have high seasonal water tables and are subject to flooding. The depth and frequency of flooding varies with the elevation and location of the soils in the valleys.

In the uplands most of the soils are formed in glacial stony till that ranges from a few inches to many feet in thickness over bedrock. Generally, the steeper soils are very shallow and areas of these soils usually include rock outcrops. On benches and footslopes, where deposits of till are commonly thicker, many of the soils are poorly drained. The wet conditions are caused primarily by firm, compact, slowly permeable or impervious subsoil and substratum materials, which impede adequate percolation of water added to the soil by rains and by seepage from higher areas. On moraines and slopes that are not subject to seepage or runoff from higher areas, there are tracts of well drained soils.

Areas of very poorly drained peat soils occur both on the uplands and in the valleys. These soils have high water tables and are from about two feet to many feet thick over mineral materials. The peat materials, which are in various stages of decomposition, are derived from sedges, mosses and woody vegetation.

5. Hydrology

Fresh water tributary to the coastal area of Juneau include glacial, non-glacial, and lake-fed streams, as well as significant groundwater flows in some areas. Heavily watered glacial drainages such as the Mendenhall River or Lemon Creek yield yearly flows in excess of 170 inches, while relatively drier areas in the Auke Bay-Lynn Canal vicinity produce much smaller annual runoffs.¹ Auke Creek, for example, yields 60 inches per year. Because of the considerable variation in size and character of watershed and source of waters, peak flows and minimum flows of area streams show great extremes. While smaller streams with relatively low-elevation watersheds experience summer drought conditions, larger streams with snowier, higher headwaters, such as Fish Creek, sustain a much larger flow per unit-area of watershed, and glacial rivers are swollen. Stormflows, which commonly occur in Fall months, are probably most variable for smaller streams, some of which experience particularly large unit-area runoff. Glacial streams generally lose their meltwater flows after October.

Regimes of sediment being carried to the sea are also highly variable, and depend on origin of flow (glacial - non-glacial) as well as on the vulnerability of the stream to mass soil movements and streambed or bank erosion. Glacial streams peak in turbidity in the early fall, and are nearly clear in winter.

¹. Stream runoff is expressed in "inches per unit-area" (the unit being the stream's entire watershed). This is derived by subtracting loss of water (by evapotranspiration, seepage, etc.) from supply of water (by precipitation, glacial melt, etc.)

Temperatures of fresh waters are particularly variable in summer, when cold meltwaters contrast with relatively warm muskeg or lake-fed streams. In winter, streams approach 32° F., except where heavy groundwater contributions (examples: Switzer Creek, Tee Harbor springs) elevate water temperatures. Most streams have water with fairly neutral (7.0) pH, though a few small mainland drainages (example: Peterson Creek) show markedly depressed pH, presumably due to bedrock conditions. There are no natural fresh surface waters identified as toxic or harmful to freshwater fishes.

The quality of ground water available in the Juneau area is highly variable, and problems occur with dissolved iron and/or other metals, elevated solutes from seawater contamination, solutes from old raised beach deposits, and, in some cases, with hydrogen sulfide.

Much information is available on the volumes of streamflow and quality of water in the Juneau area. The older information was general tied to investigations for electrical power production and mine operations. Streams investigated or considered during this early period include Cowee, Peterson, Nugget, Lemon, Gold, Sheep, Grindstone and Rhine Creeks on the mainland, and several streams between Fish and Lawson Creeks on Douglas Island. A few of these streams are still gaged today. At later dates, stream gaging was done on Davies Creek and Bridget Cove Creek near Berners Bay; on Eagle and Herbert Rivers; Auke and Lake Creeks; Auke Lake; Montana Creek; Mendenhall River; Lemon Creek and its tributaries; and Hilda Creek. The reasons for this work included possible pulpmill construction at Berners Bay; glacial hydrology investigations; research background data for fishery investigations, and community water resource planning information. In the late 1960's the City and Borough of Juneau worked with the U.S. Geologic Survey to conduct a cooperative hydrologic study of water resources of the Juneau area. This effort resulted in many miscellaneous measurements of surface waters; the location of a great many of the wells existing at that

time, and much information on quality of both surface and ground waters. References of particular value include:

Early Water Supply Papers; U.S. Geological Survey

Water Powers; Southeast Alaska; Federal Power Comm. & Forest Service

Index of Surface Water Records to 9/30/67; Alaska; USGS Circ. 585

Hydrologic Data of the Juneau Borough; McConoghy, USGS, 1969

Water Resources of the City & Borough of Juneau; USGS, 1971

6. Climate

Juneau lies within the area of maritime influence which prevails over the coast of Southeast Alaska, and is in the path of most storms that cross the Gulf of Alaska. Although the maritime influence generally produces a heavy low overcast, stable high pressure areas over the Gulf occasionally generate ample sunshine and clear skies for many days at a time. The rugged terrain also exerts considerable influence over both precipitation and temperature; creating a microclimatic situation in which there is frequently considerable variation in both weather elements within relatively short distances. (Example: +13° F., wind @ 15-20 m.p.h., blowing snow in downtown Juneau; -13°, wind calm, clear skies in Mendenhall Valley, 10 miles away).

Due to the maritime influence, both daily and seasonal temperature variations are usually confined to relatively narrow limits, although the daily difference between minimum and maximum temperatures may vary as much as 40° (F.) during periods of clear weather. Variations on a seasonal basis range from a monthly normal temperature of 25° F. in January to 55° F. in July. Extremes of record cover a range of 112° (F.) from the maximum of 90° F. in July (1975) to a minimum of -22° F. in February (1972). Monthly heating "degree days" range from a low of 207 in July, 1972 to a high of 1,801 in January, 1969; the average (for the years 1955-1976) being 9,188 heating degree days annually.

Precipitation is lightest from February through June, with a monthly average of about 3 inches. After June, the monthly amounts increase gradually, reaching a maximum during October, when the monthly fall average over 7 inches. Due to the rugged topography, precipitation varies greatly in different localities. The maximum yearly amount received in downtown Juneau is almost double the maximum received at the Juneau Airport, 8 miles away. Extremes, measured at the Airport, range from a low of 0.68 inches measured in February, 1969 to a high of 15.25 inches in October, 1974.

The greatest recorded monthly snowfall was in December, 1972 when 63.8 inches fell at the Airport. Average annual snowfall (1943-1976) measures 106.7 inches, with the greatest annual snowfall in the winter of 1971-72 when 178.1 inches fell.

7. Vegetation

Within the Planning Area of the Juneau Coastal Management Program, five distinct groups of vegetative cover are found:

(a) tidal flats - found at the heads of bays and inlets, these areas include the Mendenhall Wetlands and numerous stream deltas and estuaries. The vegetation found in tidal flats is primarily grass, sedges and rushes; and may include the following:
pondweeds, water milfoil, bullrush, burreed, widgeon grass, goose-tongue, arrow grass, spike rush, mares tail and salt wort.

(b) muskeg - open areas interspersed throughout the area, consisting of deep mucky peat and standing water. Muskegs are usually on flat or gently sloping topography, but sometimes develop on steeper slopes. Dominating plants are sphagnum mosses, and water-loving plants such as sedges, rushes and heath shrubs. Tree growth is sparse, consisting mostly of scrub hemlock and lodgepole pine.

(c) scrub forest - found in areas between muskeg and true forest, the organic soil produces slow-growing and poorly-formed species of Mountain and Western Hemlock, Lodgepole Pine and Sitka Spruce. Sufficient light reaches the forest floor to support dense undergrowth of blueberry, huckleberry, rusty menziesia, other tall shrubs and numerous varieties of small vascular plants.

(d) true forest - commercial quality forests ranging from sea level to the alpine tundra zone, these densely vegetated areas consist primarily of old growth western hemlock and Sitka spruce. Moss covers the ground, and lichens drape from many trees. Characteristic timber in addition to the dominant spruce and hemlock include red alder, lodgepole pine and mountain hemlock. The understory vegetation includes shrubs and young conifers, as well as:

blueberry, elderberry, huckleberry, Sitka alder, devil's club, juniper, skunk cabbage, ferns and grass.

(e) alpine tundra - usually found above timberline (about 2,000 feet in the Juneau area), this zone consists largely of open areas with rock outcrops that support heath, grass and other low plants. Occasional trees occur, generally dwarfed or stunted due to adverse growing conditions. Characteristic plants include:

mountain heather, dwarf blueberry, dwarf willows, alpine azaleas, lichens and mosses.

Map 3 graphically portrays these vegetative groups. Within the Planning Area, the Forest Service estimates that over 68,000 acres of true forest has commercial quantities of timber. (Commercial timber land is defined as that land containing over 8,000 board feet of sawtimber per acre.)

MAP 3
VEGETATION

Large-scale map on file in the office of the Planning Department, City and Borough of Juneau, and available for inspection.

8. Fish and Wildlife

One of the most important components of coastal management is the conservation, use and protection of the biological resources of the coastal area. Juneau's coastal area is richly endowed with terrestrial and marine life, the habitat of which is portrayed schematically on Map 4.

Thirty six (36) streams and lakes are listed by the Alaska Department of Fish and Game (ADF&G) as being important to the anadromous fishes of the area. Each of these listed waterways has been inventoried with respect to:

- Name and location
- Fish and wildlife present
- Length of stream
- Ownership of streambanks
- Character, development, management

From this information, analysis and evaluation of these streams, public input and further technical consultation with professional personnel of the relevant state and federal management agencies, will result in the development of specific stream management recommendations in Phase II of the Juneau Coastal Management Program.

Streams, lakes and waterways inventoried include:

- COWEE CREEK - Mile 39, Glacier Highway
- DAVIES CREEK (tributary to Cowee Creek)
- BRIDGET COVE CREEK - Mile 36, Glacier Highway
- BESSIE CREEK - Mile 33.5, Glacier Highway
- EAGLE RIVER - Mile 27.5, Glacier Highway
- HERBERT RIVER - Mile 27, Glacier Highway
- WINDFALL CREEK AND LAKE (tributary to Herbert River)
- PETERSON CREEK - Mile 24.5, Glacier Highway
- AUKE NU CREEK - Mile 13.25, Glacier Highway
- WADLEIGH CREEK (sometimes Waydelich Creek) - Mile 12.75, Glacier Hwy.
- LAKE CREEK - tributary to Auke Lake
- UNNAMED CREEK (sometimes Lake II Creek) - tributary to Auke Lake
- AUKE CREEK AND LAKE - Mile 12.5, Glacier Highway

MENDENHALL RIVER AND LAKE - Mile 10, Glacier Highway
MONTANA CREEK - Tributary to Mendenhall River
MCGINNIS CREEK - tributary to Montana Creek
STEEP CREEK - Tributary to Mendenhall River
NUGGET CREEK - tributary to Mendenhall Lake
DUCK CREEK - parallels Mile 0 - 2, Mendenhall Loop Road
JORDAN CREEK - Mile 9, Glacier Highway
SWITZER CREEK - Mile 6.5, Glacier Highway
LEMON CREEK - Mile 5.75, Glacier Highway
VANDERBILT CREEK - Mile 5, Glacier Highway
SALMON CREEK - Mile 3.25, Glacier Highway
GOLD CREEK - parallels Basin Road
SHEEP CREEK - Mile 4.5, Thane Road

Anadromous streams inventoried on Douglas Island include:

PETERSON CREEK (sometimes Outer Point Creek) - end of N. Douglas Rd.
FISH CREEK - Mile 8.5, North Douglas Road
NINEMILE CREEK - Mile 7.5 North Douglas Road
JOHNSON CREEK - Mile 6.5, North Douglas Road
HENDRICKSEN CREEK - Mile 5.75, North Douglas Road
NEILSON CREEK - Mile 4.5, North Douglas Road
EAGLE CREEK - Mile 2.5, North Douglas Road
KOWEE CREEK - Mile 1.5, North Douglas Road
LAWSON CREEK - North of Douglas
HILDA CREEK - West side of Douglas Island

Phase II work, in addition to further investigation of the values and conservation measures needed for these streams will identify additional waterways which although not "listed" by ADF&G, are felt to be capable of supporting runs of anadromous fish.

Also important to management planning is a knowledge of the myriad biological processes that combine to maintain good stocks of fish. Herring, Salmon and Dolly Varden are important sport and commercial fish in the Juneau area, and information regarding these species is being researched with the helpful cooperation of the Department of Fish and Game. Some areas critical to the sustained yield of these species include:

HERRING

Spawning areas (April 15 - May 15)

- Auke Bay¹
- Auke Nu Cove
- Lena Point and Tee Harbor (on reefs)
- Breadline to Pearl and Amalga Harbors
- Eagle River to Bridget Cove, and reefs around Mab Island
- Benjamin Island
- Reefs around Berners Bay²
- Gastineau Channel (intermittent)

Juvenile rearing areas:

- Auke Bay
- Gastineau Channel

Wintering areas (through mid-March)

- Coghlan Trench
- Fritz Cove

Summer feeding areas:

- Pt. Hilda to Outer Point
- Tee Harbor
- South Shelter Island

¹ Historically, spawning occurred primarily in Auke Bay. Now, most spawning is concentrated north of Auke Bay.

² In 1977, herring spawning occurred in the reefs around Echo Cove for the first time in many years.

SALMON

Milling areas:

Lower Gastineau Channel
 Outer Point
 South Shelter Island
 Mab Island

DOLLY VARDEN

Milling areas:

Echo Cove
 Eagle River
 Dupong Dock

Wintering areas:

Windfall Lake
 Auke Lake
 Mendenhall Lake

Important bottom-dwelling fish of the Juneau area include Halibut, sole and rockfish. Shrimp, Butter Clams and Crabs are popular shellfish resources:

CRAB areas: - King Crab = K, Dungeness Crab = D, Tanner Crab = T

Echo Cove	- D	Fritz Cove	- K, D, T
Bridget Cove	- D	Lawson Creek-Sand Beach	- T
Amalga Harbor	- K	Stephens Passage	- K, D, T
Eagle River	- D, T	Auke Bay	- K

BUTTER CLAIM areas:

Bridget Cove
 Lena Cove

SHRIMP areas:

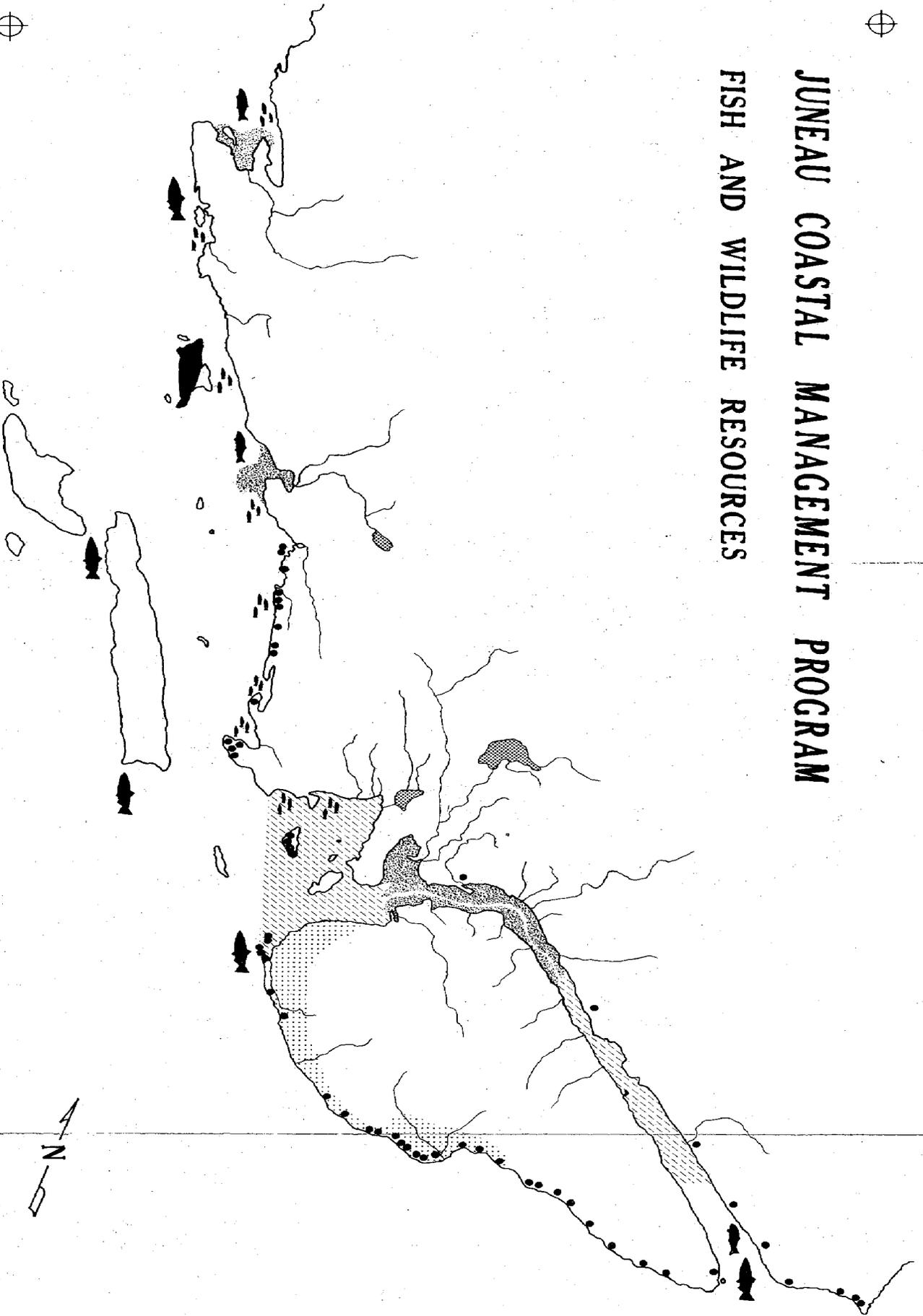
Shore north of Echo Cove
 Bishop Point to Marmion Island
 Horse Shoal

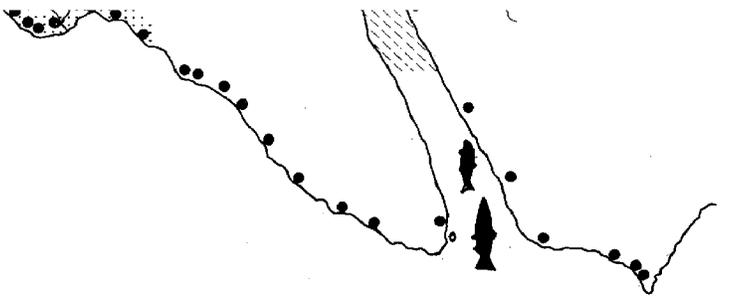
ROCKFISH areas:

Vanderbilt Reef
 Lena Point

JUNEAU COASTAL MANAGEMENT PROGRAM

FISH AND WILDLIFE RESOURCES





LEGEND



- HERRING SPAWNING AREA 
- DOLLY YARDEN MILLING AREA 
- DOLLY YARDEN WINTERING AREA 
- SALMON MILLING AREA 
- ANADROMOUS STREAM 
- SEA LION ROOKERY 
- ESTUARIES & WETLANDS 
- WATERFOWL AREA (IN ADDITION TO ESTUARIES & WETLANDS) 
- EAGLE NEST (SOME AREAS UNSURVEYED) 
- SITKA DEER HIGH DENSITY WINTER RANGE 

MAP 4



SOLE areas:

Mendenhall Bar to Fritz Cove

HALIBUT areas:

Vanderbilt Reef

North Island

North Pass

Outer Point to Picnic Cove

Mendenhall Bar

Off Lawson Creek delta

Off AJ Rock Dump

Popular saltwater sportfishing areas include:

SUNSET COVE TO EAGLE RIVER BEACH - Dolly Varden, Pink and Coho Salmon

BREAD LINE - King and Coho Salmon

POINT LOUISA - Dolly Varden and Pink Salmon

AUKE BAY - (early) King Salmon; Sockeye and Pink Salmon

NORTH PASS - Coho, King and Pink Salmon

FAVORITE REEF/SOUTH SHELTER ISLAND - King Salmon

DUPONT DOCK - Dolly Varden

POINT SALISBURY to BISHOP POINT - King Salmon

MARMION ISLAND to ICE POINT/WEST DOUGLAS ISLAND - King and Coho Salmon

Resident and migratory birds, deer and bear are valuable resources of the Juneau area. The Game Division of the Alaska Department of Fish and Game lists their most frequented areas as follows:

Water Fowl Areas: - Echo Cove/Cowee Creek; Eagle River area, and the Mendenhall Wetlands

Deer area: - West Douglas Island

Black Bear areas: - Eagle River; Peterson Creek; Douglas Island

America's National Bird, the Bald Eagle, is alive and well in Southeast Alaska. While the Chilkat River near Haines, and Admiralty Island have the greatest concentrations of these majestic birds, the Juneau area has a large and important eagle population as well.

The nesting habitat of the bald eagle is the old growth forest on the beach fringe, usually within 200 yards of saltwater and, to a lesser extent, near major salmon spawning stream systems.

Eagle feeding areas in the Juneau area include Auke Bay/Coghlan Island; Benjamin Island; Berners Bay; Hilda Creek; and various herring and salmon spawning areas.

U.S. Fish and Wildlife Service personnel are currently surveying all eagle nests in the Juneau area. Phase II of the Juneau Coastal Management Program will also include recommendations for protection of this resource.

A comprehensive inventory of animal life in the Juneau area, subdivided by the principal habitat of the various species reported is found in Appendix D of this report.

9. Mineral Resources

Juneau lies in the highly mineralized Coast Mountains, and gold was the very reason for the establishment of a community in this location. The Juneau-Douglas area yielded 6.75 million ounces of the precious metal from a gold belt extending from north of Berners Bay southward over 100 miles to Windham Bay.

The occurrence of metallic minerals in the area, including gold, zinc, lead, copper, silver, nickel, molybdenum and iron, is rated high. The occurrence of non-metallic minerals and fuels is not thought to be high in the immediate Juneau area, although Chichagof Island, 35 miles west, is rated extremely high as a potential source of geo-thermal energy.¹

¹ Alaska Regional Profiles. Volume IV., Southeast Region

Underway at this time is a survey of the sand and gravel resources of the Juneau area. The results of this study will be incorporated into the management policies developed in Phase II of the Juneau Coastal Management Program.

10. Geophysical Hazards

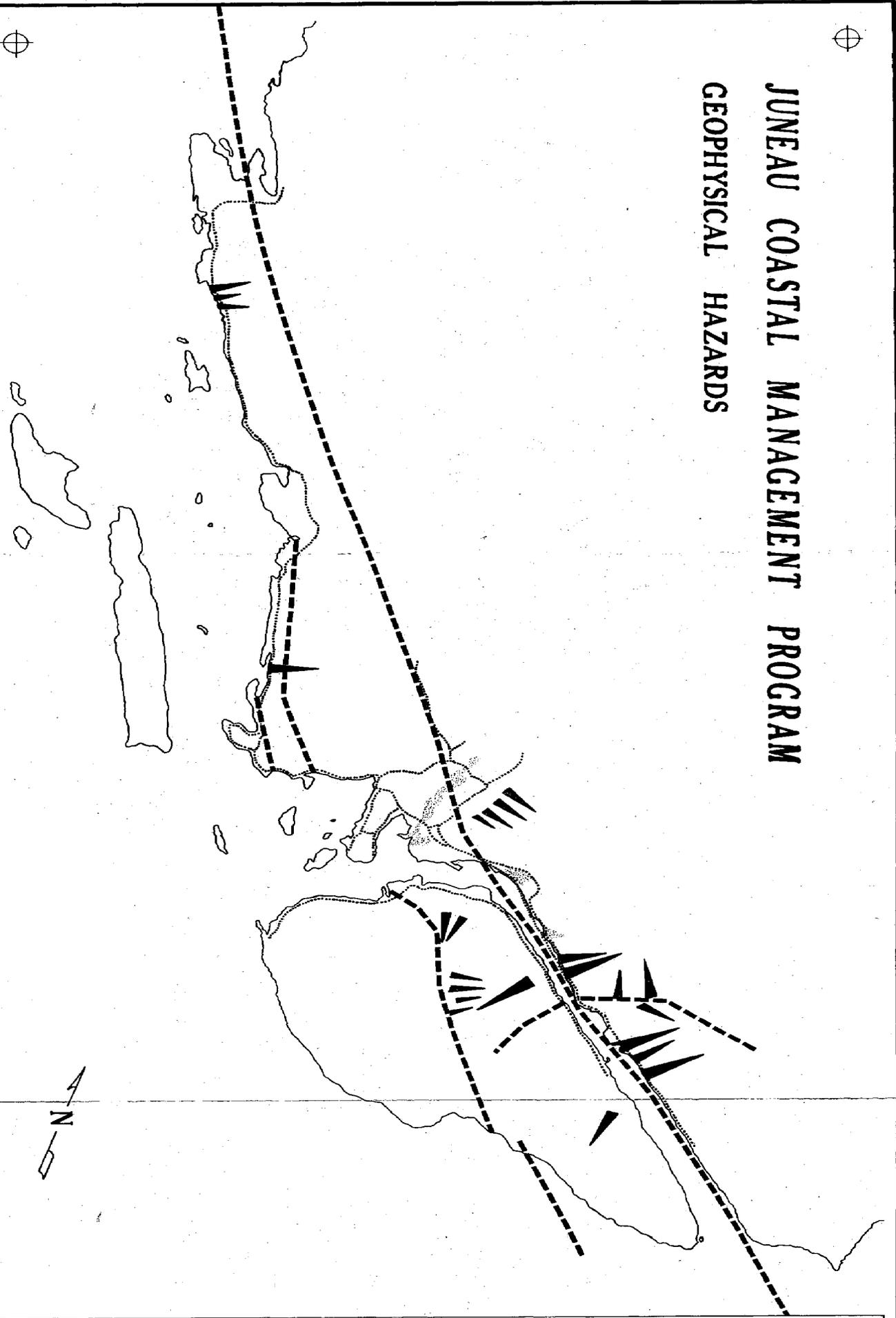
Major earthquake activity has historically occurred along the Fairweather-Queen Charlotte Islands Fault which lies 90 miles or so west of the Juneau area; and it is reasonable to predict that seismic events with a magnitude (Richter) of 6 or greater will occur with epicenters within 100 miles of Juneau.

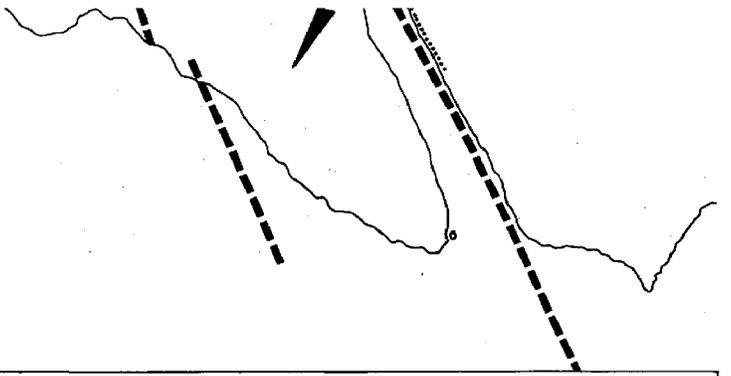
The hazard posed to Juneau by earthquakes, however, apparently lies more in the triggering of earth, rock, mud and/or snow slides than in the shaking itself.

Juneau's climate (high annual precipitation, heavy snow accumulation at higher elevations, alternating freeze-thaw cycles), combined with steep slopes and their characteristically thin mantle of unstable coarse-grained soil, expose portions of the urban and urbanizing areas of Juneau to serious hazards.

A Geophysical Hazards Investigation for the City and Borough of Juneau detailing the character of these hazards was accomplished in 1972. (Map 5 shows some of the areas identified and described in the study). The potential impact of the geophysical hazards on the development of the coastal area of Juneau will be explored in Phase II of the Juneau Coastal Management Program, and recommendations offered with respect to appropriate protective standards and policies.

JUNEAU COASTAL MANAGEMENT PROGRAM GEOPHYSICAL HAZARDS





LEGEND



GEOLOGICAL FAULT



MASS WASTING PATH



FLOOD PLAIN



MAJOR HIGHWAY
& ROADS



MAP 5



B. MAN-MADE ENVIRONMENT

1. History

For time immemorial, the Tlingit people have occupied much of the area that is today the City and Borough of Juneau. Subsisting principally on the plentiful fish and game resources of the coastal area, the people of the Auke Tribe had numerous small villages in close proximity to the most productive of the natural systems, and lived literally "off the land", while building a rich cultural heritage. Today's Native people, who constitute about 20% of Juneau's population, are stockholders in the Sealaska Corporation, one of 13 regional Native corporations established under the terms of the Alaska Native Claims Settlement Act (P.L. 92-203). Both Sealaska and Gold Belt, Inc., Juneau's urban equivalent of the village corporation, are active in land selection and economic development activities as well as the preservation of Native historic and cultural sites, and the maintenance of Tlingit culture, language and traditions.

The introduction of caucasian society and its genesis in the discovery of gold. Richard Harris and Joe Juneau, prospecting for a Sitka-based entrepreneur, discovered large deposits of the precious metal, established claims and a mining district; and, by 1880, a small but thriving mining community was in evidence on the shore of Gastineau Channel.

Although the seat of civil government in Alaska moved to Juneau from Sitka in 1906, it was not until 1913 when the first territorial legislature met here that the presence of the capital began to have meaning to the community.

Gold mining remained the economic mainstay of Juneau, although several small canneries and sawmills provided a portion of the non-governmental employment. In 1944, rising costs of labor and materials, and strict

federal control of the price of gold combined to make gold mining economically unfeasible. The Alaska-Juneau Gold Mine operation was forced to shut down, leaving a void in the private sector of Juneau's economy that persists today.

The years following World War II saw a steady but unspectacular growth in Juneau, based primarily on burgeoning territorial government employment. Sawmill and plywood operations during the '50s, and first harvesting and processing provided some employment, but governmental employment became dominant during this period, and the trend accelerated following the achievement of Statehood in 1959.

2. Land Use and Land Status

Inventorizing current ownership and uses of land is an important research project in any planning study, as this data provides some of the "givens" on which realistic planning must be based. This component of the Phase I planning study is essential to the task of evaluating the present and potential impacts of various land uses on the coastal area, and selecting specific boundaries for the several management policies concerning land use that will be developed in Phase II of the Juneau Coastal Management Program.

Detailed land use and ownership work maps have been prepared for the Planning Area, and these are generalized in this report on Map 6.

The Planning Area of the Phase I study effort contains 221,993 acres, or almost 347 square miles. Ownership status of this land is reported to be as follows:

MAP 6
LAND USE/LAND STATUS

Large-scale map on file in the office of the Planning Department, City and Borough of Juneau, and available for inspection.

U.S. Forest Service	-	175,836 acres	-	79.2%
Other federal agencies	-	408 "	-	0.2
State of Alaska				
Mental Health Lands	-	12,690 "	-	5.7
State Game Refuge	-	3,840 "	-	1.7
Selectable Lands	-	3,312 "	-	1.5
University Lands	-	451 "	-	0.2
Other agencies	-	77 "	-	0.1
City and Borough of Juneau	-	4,137 "	-	1.9
Quasi-Public Lands	-	493 "	-	0.3
Private Lands	-	20,750 "	-	9.2
<hr/>				
TOTAL PLANNING AREA LANDS	-	221,994 acres	-	100.0%

The Primary Study Area contains 55,011 acres, or nearly 86 square miles.

Ownership status of this area is shown as follows:

U.S. Forest Service	-	42,835 acres	-	77.9%
Other federal agencies	-	271 "	-	0.5
State of Alaska				
Mental Health Lands ¹	-	2,065 "	-	3.8
State Game Refuge ²	-	3,840 "	-	7.0
Selectable Lands ³	-	140 "	-	0.2
University of Alaska	-	4 "	-	-0-
Other agencies	-	28 "	-	0.1
City and Borough of Juneau	-	1,669 "	-	3.0
Quasi-Public Lands ⁴	-	386 "	-	0.7
Private Land	-	3,772 "	-	6.8
<hr/>				
TOTAL PRIMARY STUDY AREA LANDS	-	55,011 "	-	100.0%

- Notes:
1. Mental Health Lands are lands managed by the Alaska Division of Land and Water Management (formerly Division of Lands). Their primary function is to generate revenues through their sale or lease, for the State Mental Health Fund for which they are held in trust.
 2. State Game Refuge is the Mendenhall Wetlands State Game Refuge, established by Chapter 45, SLA 1976. Management of the area is the responsibility of the Alaska Department of Natural Resources; "in conformity with a plan proposed and adopted by the Department of Fish and Game, after reasonable public hearings, and following consultation with the City and Borough of Juneau".
 3. Selectable Lands are "vacant, unreserved and unappropriated" state holdings qualifying for selection by a municipality.
 4. Quasi-Public in this context, refers to lands controlled by a church, charitable organization, or other entity enjoying an exempt status with respect to municipal property taxation.

A study of land ownership, expressed in terms of linear miles of coastline, reveals the following:

U.S. Forest Service	-	105.1 miles	-	51.9%
Other federal agencies	-	6.3 "	-	3.1
State of Alaska				
Mental Health Lands	-	11.3 "	-	5.6
Selectable Land	-	0.4 "	-	0.1
University of Alaska	-	0.1 "	-	-0-
Rights-of-way	-	12.3 "	-	6.1
City and Borough of Juneau	-	11.7 "	-	5.8
Quasi-Public	-	5.3 "	-	2.6
Private Lands	-	50.2 "	-	24.8

TOTAL COASTLINE OF PLANNING AREA - 202.7 miles - 100.0%

Note: The Mendenhall Wetlands State Game Refuge is located primarily below the mean high tide line, and the "frontage" is therefore computed for the adjoining uplands. The total frontage for the Planning Area (minus the Game Refuge overlap) is 202.7 miles.

Land uses within the Primary Study Area are shown on Map 6, and are categorized as follows:

Forest ¹	-	42,836 acres	-	77.9%
Residential	-	907 "	-	1.6
Commercial	-	120 "	-	0.2
Industrial	-	28 "	-	-0-
Transportation ²	-	1,040 "	-	1.9
Public Facilities ³	-	96 "	-	0.2
Open Space ⁴	-	3,941 "	-	7.2
Quasi-public	-	386 "	-	0.7
Utilities ⁵	-	53 "	-	0.1
Vacant ⁶	-	5,603 "	-	10.2
		<hr/>		
		55,010 "	-	100.0%

- Notes:
1. "Forest" This category includes only lands managed by the U.S. Forest Service and implies a number of possible uses including utilization of timber, recreation, fish and game resources, etc. under the sustained yield principle as practiced on lands managed by the U.S. Forest Service.
 2. Transportation category includes the land (584 acres) of Juneau International Airport, and an estimated 456 acres of highway rights-of-way.
 3. Public facilities includes sewage treatment plants, schools and other public buildings.
 4. Open space acreage includes the tidelands and submerged lands of the Mendenhall Wetlands State Game Refuge; as well as other public lands dedicated to recreational/open space use.
 5. Utilities includes the solid waste landfill and lands used by the electric utilities.
 6. Vacant denotes unimproved private land as well as Mental Health Lands subject to sale or lease.

About 15% of the vacant land in the Primary Study Area is felt to be undevelopable by reason of poor soil conditions (primarily poorly-drained muskeg), steep slopes (exceeding 20%); or geophysical hazards posed by mass wastage, landslide or snow avalanche conditions.

1,710 square miles of land area lies within the jurisdiction of the City and Borough of Juneau, but beyond the Planning Areas of this Phase I study. Nearly all of this land is under the management of the U.S. Forest Service as a part of the Tongass National Forest. It was, however, deemed important to check out the detailed status of this land, as the City and Borough's coastal management responsibilities will include the development of appropriate standards and policies for the entire coastal area within its jurisdiction. Land tenure information has been recorded on work maps, and will be analyzed in Phase II of the program. A summary of the data follows:

Land Tenure in the City and Borough of Juneau, Outside
the Planning Area used in Phase I of the Coastal Management Program

Private Land (93 parcels)	-	338.3 Acres
Patented Mining Claims (24 parcels)	-	1,673.0 "
Forest Service - "Specific Use Areas"		
Classified Public Service Site	-	432.6 "
Classified Residence Group	-	4.8 "
Power Withdrawal		33,520.0 "
Lighthouse Reserve Withdrawal	-	124.9 "
Reserved Research Area	-	9,102.0 "
		<hr/>
		45,195.5 Acres

3. Community Facilities

The provision of key community facilities greatly influences patterns of urban growth, and an inventory of existing facilities is thus an important component in any land use planning endeavor.

- (a) Transportation - The fact that Juneau has no terrestrial connection to any other communities places a special emphasis on marine and air modes for all inter-city travel.
- (1) Surface transportation in the Juneau area is accommodated by a 140 mile network of highways, roads and streets. The Glacier Highway extends 40 miles north from downtown Juneau (to Echo Cove on Berners Bay); the first 10 miles of which is a 4-lane divided and limited access section. The Thane Road extends 7 miles south of downtown Juneau along the eastern shore of Gastineau Channel. On Douglas Island, the Douglas and North Douglas Highways run from the community of Douglas 15 miles north to Outer Point. A 2-lane single-span steel truss bridge connects the Douglas Island highway system to the mainland system.

Significant roads feeding this basic arterial system include the 5.1 mile Fish Creek Road which serves the Eaglecrest Ski Area on Douglas Island, and the Glacier Loop Road which, as its name implies, is a 7 mile loop joining the Glacier Highway at both ends (Mile 9.5 - Mile 12). The Loop Road serves as the principal collector in the rapidly-growing Mendenhall Valley area. An extension of the eastern leg of the Loop Road provides road access to the Mendenhall Glacier.

Capital Transit, a municipally operated system, operates scheduled bus service throughout the urban and urbanizing areas of the community. Taxi, commuter bus and charter bus services are also available, as is regular bus service between downtown Juneau and the airport.

- (2) Air transportation systems are highly developed, with frequently scheduled flights to other Southeastern communities, Anchorage, Fairbanks and Seattle, Washington. Good connections are available at Anchorage and Seattle to points throughout the world.

The Juneau International Airport, with its terminal facility and 8,500' long asphalt surfaced runway, is a municipally operated airport. Two scheduled air carriers, Alaska Airlines and Wien Air Alaska, serve Juneau, with Alaska carrying the bulk of the traffic, and Wien serving Fairbanks traffic (through Whitehorse, Y.T.) twice weekly. Alaska Airlines operates an average of 4 northbound and 4 southbound flights daily from Juneau.

Four air taxi services provide locally-based operations and serve traffic to and from numerous communities throughout Southeastern Alaska and the Yukon Territory. Numerous air taxi services also operate into Juneau from other areas. Float-mounted air taxis utilize the float-plane basin at the airport as well as the Gastineau Channel and downtown harbor areas for their operations.

Air traffic has been steadily increasing. In 1976, Alaska Airlines enplaned 118,505 passengers at Juneau, while the air taxi services carried over 31,000 people.

MAP 7
COMMUNITY FACILITIES

Large-scale map on file in the office of the Planning Department, City and Borough of Juneau, and available for inspection.

- (3) Waterborne transportation has been the mainstay of the Juneau area since its beginnings as a populated community. Even before Joe Juneau and Richard Harris paddled up Gold Creek, local Natives utilized the water as their principal means of travel throughout the area. Population growth of Juneau, with the resultant increased demand for foodstuffs and commodities; and the increase in the tourism as a result of the State's Marine Highway System and commercial cruise ships have combined to cause a marked increase in the area's marine traffic.

The Alaska Marine Highway has two terminals locally; one in downtown Juneau and the other at Auke Bay near Mile 15 of the Glacier Highway. Mainline ferries of the system serve the area on a run that includes Haines and Skagway in the extreme northern end of Lynn Canal; and Sitka, Petersburg, Wrangell, Ketchikan, Prince Rupert B.C., and Seattle, Washington to the south. A locally-based ferry of the system serves Haines, Skagway, Hoonah, Pelican and Angoon from the Auke Bay Terminal.

Summer cruise ship visitations have increased dramatically through the 1970's, and by 1977 reached 134 landings by a dozen different ships; many of which are world-class luxury cruise ships exceeding 20,000 gross tons displacement. This greatly increased marine traffic is placing heavy demands on the limited available docking facilities in the Juneau Harbor, and many ships are required to anchor off-shore, and lighter their passengers.

The Alaska Marine Highway System carried nearly 43,000 passengers into Juneau in 1976, while cruise ship stops in Juneau accounted for some 40,000 visitors to the community.

In addition to "roll-on/roll-off" vans of freight carried by Lynden Transport, Inc. aboard the ships of the Marine Highway system; Foss Alaska Line schedules weekly tug and barge service from Seattle. Other tug and barge operators carry specific commodities on contract on a non-scheduled basis. Petroleum products are regularly supplied to local distributors by tankers.

A major factor in the marine traffic of the Juneau area is the impact of more than 2,000 fishing and pleasure boats registered here. 872 of these craft are moored in three city-operated boat harbors, and another 395 boat owners are on a waiting list for these facilities. Several private marinas offer moorage for another several hundred small craft; but they too are filled to capacity and have waiting lists.

- (b) Water and Sewer Systems - The City and Borough presently operate 3 wastewater treatment facilities. The Juneau-Douglas Plant, located south of the urban area on Thane Road, is a major secondary treatment facility with a maximum design flow capacity of 7.28 million gallons per day (mgpd). Present average daily flow through this plant is 2.7 mgpd. The Mendenhall Valley Plant located near the airport was designed for a flow of 0.5 mgpd and is already handling an average of 1.0 mgpd. The Auke Bay Plant at Mile 12.3 of the Glacier Highway is currently treating about 30% of its design capacity of 100,000 gpd. Several small treatment plants

MAP 8
WATER & SEWER UTILITIES

Large-scale map on file in the office of the Planning Department, City and Borough of Juneau, and available for inspection

serve the Salmon Creek-Lemon Creek-Switzer Creek area, which is currently without a major public collection and treatment facility. These include sewage lagoons serving Switzer Village, and package plants serving the State's Lemon Creek Correction Facility; the Bartlett Memorial Hospital, and several individual plants at mobilhome parks in the area. The Mendenhall Glacier Visitor Center also has its own sewage treatment system.

The major water systems in the area are owned and operated by the City and Borough. The Juneau system has a capacity of 5.5 mgpd of which about 3.0 mgpd is presently used. The Douglas system uses about 65% of its 0.3 mgpd capacity. A number of small (less than 100,000 gpd) systems serve various suburban neighborhoods.

- (c) Electric Utility - Alaska Electric Light and Power Company (AEL&P) is the principal firm engaged in generation, transmission and distribution of electric power in the City and Borough of Juneau, serving over 6,500 customers. Glacier Highway Electric Association, a small rural electric association, serves some 700 customers in the Auke Bay area and beyond.

AEL&P power sources consist of three hydroelectric generating facilities and two diesel electric generating plants:

Gold Creek Facility - Diesel	8,200 KW
Lemon Creek Facility - Diesel	7,500 KW
Gold Creek - hydro	1,600 KW (1)
Annex Creek - hydro	3,600 KW (1)
Salmon Creek - hydro	2,800 KW (1)

(1)

firm only during summer and fall months

Electric energy is also purchased from the U.S. Government (Alaska Power Administration) Snettisham Hydroelectric Project located about 28 air-miles southeast of downtown Juneau. Modifications of the Snettisham transmission lines are presently being accomplished. When completed, AEL&P's generating facilities will be used primarily for standby purposes.

The Snettisham hydroelectric plant is presently capable of generating 46,000 KW, and this capacity could be increased to 73,000 KW in the future. Current peak demand is about 20,000 KW.

- (d) Solid Waste - Acme Disposal Company is the firm currently holding a permit from the Alaska Public Utility Commission to collect and dispose of solid wastes (garbage, trash, rubbish, tires, etc.) in Juneau.

A 46 acre landfill site is located between the Glacier Highway and Egan Drive at Mile 5.3. About 21 acres of the site has been filled in 13 years of use. Solid waste are collected in areas accessible by road.

Operation of the landfill and collection system is in the process of changing hands, as the present owner has sold the business. The Alaska Department of Environmental Conservation currently has a suit pending against the present operator which charges that the landfill process used has provided insufficient separation of fill materials, and inadequate cover over putrescible matter.

- (e) Recreation and Open Space - Participation of local residents in outdoor recreational pursuits is substantially higher than found in other areas of the northwestern states. A recent survey taken in connection with the Comprehensive Parks and Recreation System Plan indicated that almost 65% of the 911 respondents felt that "the unique natural recreational opportunities of the Juneau area was an important factor in why they lived here".

Many of these "unique natural recreational opportunities" are directly related to Juneau's coastal orientation, and the magnificence of scenery created by mountains rising literally out of the sea.

The State of Alaska, U.S. Forest Service and the City and Borough of Juneau each operate facilities and recreational areas that contribute to the enjoyment of the area's environment. These facilities have been inventoried as to:

- Name and Location
- Use
- Ownership
- Size
- Features (including any development)
- Access

The recreational areas and facilities within the Planning Area are shown on Map 9.

A brief summary of this inventory follows:

Hiking Trails managed by the Forest Service include the Yankee Basin Trail, Bessie Creek Trail, Eagle Glacier Trail, Herbert Glacier and Goat Mountain Trails, Windfall Lake Trail, Peterson Lake Trail, Spaulding Meadow Trail, Lemon Creek Trail, Bishop Point/Dupont Trail, and the Dan Moller Ski Trail on Douglas Island. The State of Alaska owns and maintains the Sheep Creek Trail and the Salmon Creek Trail.

Scenic Road turnouts are provided at frequent intervals by the State Department of Transportation. These overlooks are principally used for photography and visual enjoyment, and range in size from 900 square feet to onehalf acre and more. Fourteen such areas are provided along the Glacier Highway corridor, with two on the North Douglas Highway, two on the Thane Road and one overlooking Auke Bay on Fritz Cove Road. The major recreational area managed by the State of Alaska in the Juneau area is the 3,840 acre Mendenhall Wetlands State Game Refuge which is used extensively by residents and visitors for hiking, nature study, hunting, photography and wildlife viewing.

Boat moorage and/or launching areas operated by the City and Borough include Amalga Harbor, Auke Bay Harbor, Aurora Basin, Harris Harbor, Douglas Harbor and the City Dock. Major privatelyowned marinas include the Tee Harbor Marina; and Fisherman's Bend and De Harts, both at Auke Bay. The Sandy Beach and Savikko Recreation Areas, Fish Creek Estuary area, Twin Lakes Park, and two points of access to Auke Lake are also water-related

MAP 9
RECREATION

Large-scale map on file in the office of the Planning Department, City and Borough of Juneau, and available for inspection.

recreation areas operated by the City/Borough, and a downtown Marine Park is currently in the design stages. Playgrounds and athletic fields at area schools are also used for recreational pursuits.

Forest Service management practices, particularly in areas classified as General Forest, are devoted to the "production and utilization of forest resources, recreation and wildlife". Many such areas in Juneau are widely used for recreational purposes including hunting, fishing, hiking, picnicking, photography, camping and nature study. At some of the wellused locations, the Forest Service maintains facilities such as cabins, picnic tables, fireplaces, pit toilets, auto parking areas and drinking water. Some of the most popular areas managed by the Forest Service are located at Bridget Point, Benjamin and North Islands, Lincoln Island, Ralston Island, Shelter Island, Portland Island, Coghlan Island, Echo Cove, Douglas Island, Eagle Beach, Lena Beach, Auke Village Campground and Recreation Area; and numerous Lynn Canal and Gastineau Channel beach areas.

4. Population and Demography

The Planning Area utilized in the Phase I study includes virtually all populated areas in the City and Borough of Juneau.

The dramatic population growth in Juneau from the achievement of Statehood has been linked directly to the great increase in government employment in the State Capital. The 1960 Census showed a population of 9,745. By 1970, the Juneau area was reported to have 13,556 residents, an increase of almost 40%. Current population is estimated to be between 20,000 and 20,500; up

over 49% in the 7 years since the last decennial census, and more than double the 1960 count.

Distribution of the population has also undergone a drastic change. In 1960 the urban areas of the Cities of Juneau and Douglas contained 80% of total area population. By 1970, population of the Juneau-West Juneau-Douglas urban area represented less than 55% of total area population. That percentage is currently estimated to be about 45%; and as the Lemon Creek Valley-Mendenhall Valley-Auke Bay area continue their rapid growth, it is likely that by the 1980 Census, the traditional central area will contain 40% or fewer of total Juneau area residents. Projection of this trend portends residential pressures on coastal lands in the Lemon Creek to Tee Harbor segment and on North Douglas Island, with particularly heavy land use demands from the Airport to Auke Bay.

5. Economic Base

In the last 15 years (1961-76) the growth in Juneau employment has been substantial. Non-agricultural employment has grown from 4,824 in 1961 to 9,614 in 1976, an increase of 100%. This growth has caused rapid expansion in some areas, particularly the Mendenhall Valley, and has increased pressures and demands on the land resources of the coastal area for both commercial and recreational use.

The leading growth sector has been government, primarily state and local. This, in turn, has stimulated the support and service sectors. Unlike most economic models which list government as a secondary industry, government in Juneau is the basic reason for growth. Its growth is caused by increasing revenues from natural resource development in other parts of Alaska, although Juneau is not directly involved in that development. These revenues are translated into jobs in Juneau, and these jobs in turn cause the expansion of the economy.

The major basic employment generators in most economies come from natural resource extraction and processing, and some construction activities. In Juneau, these would relate to mining, contract construction and manufacturing categories. In the past 15 years, mining has averaged about 7 jobs, fluctuating between a low of one job and a high of 12 jobs. Contract construction has averaged about 357 jobs per year with a low of 199, and a high of 635. (Much of this construction is caused by government construction projects, primarily office buildings and highway projects). Manufacturing, the leading employment stimulator in most communities, has averaged about 117 jobs per year since 1961, with a high of 170 and a low of 79. Fish processing, which is a seasonal business with most activity occurring during summer months, is the major manufacturing business, and its operations fluctuate with the fish runs. In earlier years, Juneau supported a sawmill operation, but it was destroyed by fire, and never replaced. The growth in these sectors shows: Mining had 12 jobs in 1962, declining to an estimated 5 jobs in 1976; contract construction had 336 jobs in 1961, growing somewhat to 405 jobs in 1976; and manufacturing had a slight increase from 148 jobs in 1961 to 156 in 1976. This growth rate would not stimulate or sustain major population increases.

Employment categories of transportation, communications, and public utilities; trade; finance, insurance and real estate; and services, are usually classified as support sectors, and result from basic employment. In Juneau they have shown increases greater than would be indicated by the three basic sector categories examined. Transportation, communications, and public utilities employment grew from 507 in 1961 to 541 in 1976; the trade sector grew from 565 in 1961 to 1,327 in 1976; finance, insurance and real estate grew from 118 in 1962 to 406 in 1976; and services more than doubled from 450 in 1961 to 1,090 in 1976. In all of these categories, growth has steadily continued over the last 15 years, and they did not experience the wide fluctuations of the basic sector categories.

The category of government employment in the Juneau labor area representing federal, state and local levels, grew over 105%; from 2,709 in 1961 to 5,559 in 1976. Leading the way was state government employment, which rose from 1,271 in 1961 to 3,470 in 1976, an increase of 173%. In the first 10 years (1961-70), state employment grew by 923 jobs, but in the 6 following years (1970-76), government grew by 1,276 jobs. Since large oil revenues were received in 1969, government employment has greatly increased its rate of growth.

Local government is greatly influenced by state government actions, and its growth has also been significant. In 1961, there were 276 local government employees in Juneau, but by 1976 this figure had grown to 1,005. This growth is caused by a number of factors including: State government programs causing expansion of local government; consolidation of local government in the Juneau area, and increased population because of state government expansion which, in turn, creates greater pressures for more sophisticated local services.

Federal government employment has not changed significantly and, in fact, has declined somewhat. Over the past 5 years, however, a slow upward trend has appeared. In 1961 federal government employment stood at 1,166, and in 1976, it was 1,084. The "low spot" came in 1972, when federal employment in Juneau was down to 914.

Along with increased government employment has come increased government wage scales, which have had a significant impact on the buying power of Juneau residents. This buying power increase has been proportionately greater in Juneau than in the rest of Alaska, because many of the State's executives and high-level officials reside in the capital city. In addition, availability of government employment in Juneau encourages many families to have more than

one wage earner, thus increasing even further family income and buying power in Juneau.

The tables that follow show the major role of government in Juneau's economic base; which, for reasons of topography and urban growth patterns, is virtually synonymous with the economic base of the Coastal Management Program Planning Area used in this Phase I report.

Juneau Labor Area
Percent of Employment by Industry
Selected Years 1961-1976

	1961	1965	1970	1975	1976
NAWS Employment	100%	100%	100%	100%	100%
Mining	*	*	*	*	*
Contract Construction	7.0%	6.9%	4.3%	4.2%	4.2%
Manufacturing	3.1%	2.5%	1.3%	1.6%	1.6%
Transportation, Comm., Pub. Utilities	10.5%	10.3%	8.7%	7.2%	6.7%
Trade	11.7%	11.7%	12.5%	13.9%	13.8%
F.I.R.E.	2.4%	2.8%	2.2%	3.9%	4.2%
Service	9.3%	9.5%	8.8%	11.7%	11.3%
Miscellaneous	*	*	*	*	*
Government	56.2%	56.0%	61.7%	57.2%	57.8%
Federal	24.2%	20.1%	18.4%	10.8%	11.3%
State	26.3%	28.5%	33.8%	35.8%	36.1%
Local	5.7%	7.4%	9.5%	10.6%	10.5%

Source: Alaska Department of Labor

Estimated Total Juneau Labor Area Population and
Employment by Industry and Economic Sector, 1976

Basic Sector

Construction		405	
Manufacturing		156	
Mining		5	est.
State Government		3,237	
Central	2,637		
Regional	600		
Federal Government		841	
Central	312		
Regional	529		
Sub-Total		<u>4,644</u>	47.4% (1.00)

Secondary Sector

Transportation, Communications, and Public Utilities		641	
Trade		1,327	
Finance, Insurance, and Real Estate		406	
Service		1,090	
Miscellaneous		25	est.
Self Employed/Domestics		185	
State Government			
Local		233	
Federal Government			
Local		243	
Local Government		<u>1,005</u>	
Sub-Total		<u>5,155</u>	52.6% (1.11)

Total Employed Labor Force 9,799

Total Population 18,760
 Participation Rate 52.2%
 Population/Employment Ratio 1.91/1.00

Source: Alaska Department of Labor Employment Estimates;
 Homan-McDowell, State and Federal Employment in Juneau, 1976.

JUNEAU LABOR AREA
 Civilian Resident Labor Force by Industry
 1961-1975

	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
Total Labor Force	5,768	5,313	5,783	6,032	6,359	6,289	6,526	6,865	7,086	6,985	7,698	8,255	8,560	9,153	9,932	10,589
Total Unemployment	325	306	300	281	323	326	315	305	328	327	390	426	478	588	621	790
Percent Unemployment	5.6%	5.8%	5.2%	4.7%	5.1%	5.2%	4.8%	4.4%	4.6%	4.7%	5.1%	5.2%	5.6%	6.5%	6.3%	7.5%
Total Employment	5,443	5,007	5,483	5,751	6,036	5,963	6,211	6,560	6,758	6,658	7,308	7,829	8,082	8,565	9,311	9,799
NAWS Employment ¹	4,824	4,453	4,923	5,156	5,195	5,186	5,450	5,796	5,965	6,497	7,196	7,701	7,982	8,399	9,148	9,614
Mining	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Contract Construction	336	228	252	338	351	244	284	338	199	279	355	635	594	488	381	405
Manufacturing	148	168	157	167 ³	130 ³	102	89	79	80	84	88	913	82	104	147	156
Transportation/Public Utilities/Communication	507	479	458	506	536	549	524	583	562	565	615	592	609	668	656	641
Trade	565	557	615	608	610	670	754	772	811	812	876	1,017	1,121	1,152	1,275	1,327
Finance/Insurance & Real Estate	98 ³	118	126 ³	126	143	152	152	184	166	146	166	207	243	289	355	406
Service	450	434	449	477	493	520	562	550	528	570	665	692	802	943	1,073	1,090
Miscellaneous ²	11	12	11	11	11	12	12	9	11	30	30	27	37	27	27	*
Government	2,709	2,457	2,855	2,923	2,911	2,937	3,073	3,281	3,608	4,011	4,401	4,440	4,494	4,728	5,234	5,559
Federal	1,168	1,024	1,156	1,084	1,042	1,076	1,091	1,083	1,120	1,198	1,253	914	966	942	991	1,084
State	1,265	1,143	1,392	1,508	1,483	1,443	1,573	1,723	1,918	2,188	2,455	2,595	2,692	2,936	3,274	3,470
Local	276	290	307	331	386	418	409	475	570	625	693	931	836	850	969	1,005

1) Nonagricultural Wage and Salary
 2) Estimate Includes Mining
 3) Estimate

SOURCE: ALASKA DEPARTMENT OF LABOR

III. ASSUMPTIONS, GOALS AND OBJECTIVES

The Juneau Coastal Management Program will develop, for the consideration of the Planning Commission and the City/Borough Assembly, an appropriate set of recommended policies, standards and specific regulations concerning land and water uses in the coastal area.

The public participation program will continue to be actively pursued throughout the planning process to assure that the final recommendations of the program will truly represent the needs and desires of the people of Juneau as well as being consistent with the broad guidelines being developed by the Alaska Coastal Policy Council. The following statements of principles, planning rationale, and assumptions, will continue to be tested and refined in Phase II of the program; as will the goal and objectives for the Juneau Coastal Management Program set out in this report.

COASTAL MANAGEMENT PRINCIPLES

- o Juneau's coastal area is a distinct and valuable natural resource of concern to all people of the community.
- o The physical assets of Juneau's coastal area, which include its amenities and aesthetic values, are vital to achieving the community's social, economic and environmental goals.
- o There is a strong local (as well as state and national) interest in effective management, beneficial use, protection and development of the coastal area.
- o Natural processes of the coastal environment are ongoing and dynamic, and the balance of fish, shellfish and other marine organisms and wildlife in the coastal area is fragile and vulnerable.

- o Demands on coastal area resources are significant, and will increase in the future. The capacity of the Coastal environment to absorb these demands is limited.
- o Protection of the natural and scenic resources and fostering wise development of the coastal area are of concern to present and future citizens of Juneau.

PLANNING RATIONALE

- o In light of increasing and competing demands, Juneau's coastal area must be rationally planned and managed to protect human and natural values, and to incorporate, guide and monitor factors that influence achievement of the community's social, economic and environmental goals and objectives.
- o To be effective, the planning program must assure participation of the public, as well as local government and agencies of the state and federal governments: and will thus be designed to encourage active participation of Juneau's citizens in development of coastal management policies.
- o Existing governmental structures and authorities will be utilized to the maximum extent feasible to achieve the policies set out in the Juneau Coastal Management Program.

PLANNING ASSUMPTIONS

- o Assuming no relocation of the State Capital, Juneau's population is expected to reach approximately 28,000 by 1990. The relocation question notwithstanding, Juneau will continue to be the major population and regional center of Southeast Alaska.

- o The economic diversification program will result in new private sector employment opportunities to supplement governmental employment.
- o The number of tourists and visitors arriving in Juneau by cruise ship, ferry and aircraft will continue to increase.
- o Primary dependence of the community on marine transportation for freight movement will continue.
- o The Gastineau Channel from Juneau to Fritz Cove will not be dredged for deep-draft vessels.
- o The new Juneau-Douglas Bridge will be constructed in the same location and with essentially the same vertical clearance as the present structure.
- o Public concern for the environment will continue, and high standards of environmental protection will be enforced by various governmental agencies.
- o The State will prepare general guidelines applicable to local coastal management programs pursuant to the Alaska Coastal Management Act (Chapter 84, SLA 1977), and the National Coastal Zone Management Act, as amended (16 USC 1451 et seq).

COASTAL MANAGEMENT GOAL

TO ATTAIN ORDERLY AND BALANCED USE, DEVELOPMENT, CONSERVATION AND PROTECTION OF OUR COASTAL RESOURCES ON BEHALF OF THE PEOPLE OF JUNEAU.

COASTAL MANAGEMENT OBJECTIVES

- o To ensure that urbanization and utilization of the coast will have the least possible negative impacts on finite coastal area resources.

- o To increase opportunities for diversification of the economic base of the community.
- o To protect and manage significant historical, cultural and aesthetic values and natural systems and processes within the coastal area.
- o To encourage the use of waterfront land for water-oriented uses.
- o To maintain a high standard of air and water quality.
- o To encourage industrial and commercial enterprises which are consistent with the social, cultural, historical, economic and environmental interests of the people of Juneau.
- o To provide maximum physical and visual access to the coastal area for all people consistent with the protection of coastal resources.
- o To develop and improve Juneau's port and tourist facilities.
- o To acquire, protect and develop land, water and shoreline areas with significant recreation-oriented features for public recreational purposes based on area demand and public support.
- o To maintain as much as possible of the outstanding scenic and aesthetic value of Juneau's coastal area.
- o To utilize and protect in an orderly and balanced way the resources of the coastal area consistent with sound conservation and sustained yield principles.

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IV. EXAMINATION AND COMMENTARY

A. NATURAL AND MAN-MADE ENVIRONMENT

1. Land Use and Land Status

The land area of the City and Borough of Juneau (including Icecap), is 2,404 square miles, or over 1.5 million acres. The Juneau Coastal Management Program will generally review this entire area as well as the 704 square miles of salt water area within the jurisdiction. Particular emphasis, however, has been placed on the 222,000 acres of land that has been designated as the Planning Area of the Phase I Study, as this is where demands on the coastal resources are rapidly increasing, and where they are expected to become even more severe as population growth and urbanization continue.

Of the total land area within the City and Borough, 64.4% is U.S. Forest Service land managed as General Forest, and another 2.7% is Forest Service land designated as "Special Areas." The Bureau of Land Management manages 29.8% (primarily icecap area), and 1.4% is State land. Along with the 0.2% owned by the City and Borough of Juneau, governmental holdings amount to 98.5% of the total land resource within the jurisdiction, with but 1.5% (about 23,000 acres) in private ownership. The overwhelming amount of governmental land ownership points up the need for active coordination in all land use planning activities, and the importance of working particularly closely with the Forest Service in the development of the Tongass Land Management Plan.

In the Planning Area, governmental holdings amount to 90.4% of the land. Here, however, there is considerable land selection activity underway, the results of which will be a far-reaching redistribution of lands presently in Forest Service and State systems. Goldbelt, Inc., the "urban" Native corpo-

ration, has selection rights of up to one township of land (23,040 acres) under the terms of the Alaska Native Claims Settlement Act (P.L. 92-203). Goldbelt has, to date, filed on over 3,800 acres of land in the Planning Area, with about 1,700 acres of its local selection located on the west side of Douglas Island, and over 2,100 acres at Berners Bay. The impact of an additional 6 square miles of private land in the coastal area, of course, depends on the near-term and long-range uses to which the land is devoted, and as the Juneau Coastal Management Program enters Phase II, coordination with the Board of Directors of Goldbelt, Inc. and with the several governmental agencies involved in the selection process will be maintained through both formal meetings and informal contacts.

One of the first tasks of the Phase II study will be to analyze in detail the extent of residential, commercial, industrial, public facility and recreational expansion in the coastal area over the past 10 years, and to evaluate the present and potential demands on the area's coastal resources under various growth and development options, so that allocations responsive to the goals and objectives of the program can be realistically achieved.

The ultimate disposition of 12,690 acres of Mental Health Lands held in trust by the Alaska Division of Land and Water Management constitutes a major issue in the development of an effective coastal management program for Juneau. The crux of the issue is contained in the conflict that could arise between the State's responsibility to generate the highest possible revenue to the Mental Health Fund, and local needs for public access, open space, and protection of certain coastal resources. Meetings with officials of the Alaska Department of Natural Resources will explore alternative approaches that will hopefully ameliorate these potential conflicts.

Compounding the public lands disposal issue is the fact that the Juneau area contains lands which, although privately owned, have been freely utilized in

the past for recreation, access, hunting, scenery-viewing and other public uses. When development occurs on these lands, or when an owner elects to post his property, there is frequently resentment on the part of the public at the loss of a traditional privilege that it feels has been taken away. It is sometimes possible, through acquisition of easements and other agreements consistent with an owner's objectives, to maintain historic public access and use; and these methods will be explored in specifically identified cases. At the very least, the coastal management effort, through the public participation program and in published reports, can point out areas that are specifically planned to remain open to public uses, and thus perhaps soften the blow of seeing a residential subdivision or other development spring up in a favorite recreational area.

2. Transportation

One of the key elements in the assessment of demands on the coastal area is that of transportation. Waterborne transportation carriers and their terminal facilities, the airport's location on the Mendenhall Wetlands, and the roads and highways providing vehicular access to and through Juneau's coastal area, are all matters that will receive attention in Coastal Management Program development.

The bulk of the goods, commodities, foodstuffs and building materials utilized in Juneau are delivered by sea. Gross business receipts in Juneau reported by the Alaska Department of Revenue, show an increase of 100% from 1960 to 1970 (\$41 million to \$82 million), and an over 90% increase (\$82 million - \$156 million) in the period 1970 - 1975. These figures portray a rate of growth vastly exceeding that of the population increase. Even considering the double-figure inflation rates of some recent years, the growth in gross business receipts is notable, and indicates a great increase in the affluence and buying power of Juneauites, and a corresponding expansion of the trade and services sectors of the area's economy.

These statistics have a direct relationship to the need for docks, barge facilities, and other marine installations generally requiring deep draft waterfront locations. The Phase II study will review the recommendations of the 1973 Juneau Waterfront Plan, and will evaluate the present and future demand for this facet of land and waterfront use.

Other issues that will require further analysis, evaluation and public review in order to develop meaningful local policies include exploration of the State's intentions regarding terminal facilities for Marine Highway ships, and a review of cruise ship traffic, scheduling and facilities.

The Southeast Alaska Multi-Model Transportation Plan, under development at this time, is scheduled for completion during the course of the Phase II effort, and should provide a wealth of data regarding a number of issues that are important to Juneau. Some of the transportation-related issues that will be further explored include proposed highways to Haines, and to British Columbia (through the Taku River corridor), and suggestions that the Marine Highway system use Juneau as its northern terminus and that Haines and Skagway be served from Juneau by Le Conte class vessels.

The expansion of transportation and industrial activities at and near the Juneau International Airport has also created additional demands on coastal lands. In addition, interest has been expressed in the possibility of a Channel crossing from the airport area to North Douglas Island. Such a crossing would reduce, by about 20 miles, the distance involved in auto trips from the Mendenhall Valley or Auke Bay areas to Eaglecrest, or other points on North Douglas. It is important that a proper balance be achieved between these vital transportation functions and management of the rich biological productivity of the Mendenhall Wetlands.

With the completion of Egan Drive, the surface transportation network in Juneau appears to be adequate to handle present traffic flows. Widening of

the Glacier Loop Road, and intersection improvements, are presently underway. Major projects currently in the design stage are replacement of the 40+ year-old Douglas Bridge, and reconstruction of Thane Road.

Public debate regarding location of the Glacier Expressway (now Egan Drive) right-of-way and its relation to the Mendenhall Wetlands continued for many years, and was finally resolved in a compromise. Early coordination among appropriate local and state agencies, and observance of Juneau Coastal Management Program policies and standards will be directed toward preventing that type of controversy in the future.

3. Population and Demography

Since World War II, the residential trend nationally, as well as locally, has been to the "suburbs." The American dream of a home of one's own, open space for the kids to enjoy, and a home life away from the hustle and bustle of the central city, is no less an Alaskan dream. In Juneau, an area characterized by rugged topography and heavy snowfall, the desire to escape the high density of the traditional central area has been manifested in rapid residential development of the relatively level Lemon Creek Valley, Mendenhall Valley and Auke Bay areas. Construction of Egan Drive, provision of regular public bus service to the valley area, and establishment of full-service commercial shopping centers, have accelerated the pace of Valley development. It is anticipated that this trend of suburban residential and commercial expansion will continue, resulting in a 60% - 40% population relationship of the Valley areas to the traditional central city area by 1980. Personal affluence, availability of buildable land, proximity to schools, public facilities and the coast-related scenic and recreational resources of the northern portions of the City/Borough, have also been important factors in this shifting pattern of population distribution. Coastal management program development will have to be sensitive to pressures generated by these residential trends.

Demographic analysis and projections are critical to land use planning programs, as the impact of social and economic endeavors on land and water resources is directly related to human population density in a given planning area. It is thus necessary to have a good estimate of how many people one is planning for before realistic land use standards and allocations, or public facility policies can be developed and recommended.

Depending on the time period used as a base, "straight-line" projection of historic Juneau population trends will yield substantially different figures when carried out to the year 1990. If the period 1960-1970 is used, for example, the indicated Juneau area population for 1990 would be 21,178, but if the population increase since the last decennial census (1970-1977) is utilized as the base, the extrapolated figure for 1990 would be 33,110. The Capital City Economic Base Study; 1974, using employment as the basis for projection, foresaw a 1990 population of 30,474 (assuming no capital relocation).

Aside from known factors that will influence Juneau's population curve (capital relocation, transportation modes, energy development, timber processing, governmental employment patterns, etc.), there is a growing public awareness of the fact that attitudes adopted by local government toward growth and development, expressed in its policies concerning schools, public facilities, social programs, economic diversification and zoning, can greatly influence the density and distribution of population as well as the total area population.

Economic analysts have projected that a capital relocation program designed to move all central State positions to a new capital city, would leave a total Juneau population of less than 7,000 persons. In that event, a likely 1990 total population figure is felt to be along the order of 8,500 persons.

If population were the only criterion in measurement of potential demands on coastal resources, the impact of 8,500 people living in the Planning Area (26 square miles per person), would be substantially less than that of a population of 33,000 (6.7 square miles per person). The issue of population pressure, however, is but one of a number of considerations involved in devising a land and water allocation plan that will achieve the balanced development and conservation sought in development of the Juneau Coastal Management Program.

A number of studies and investigations are underway at this time that will shed further light on many of these factors that will affect Juneau's overall rate of growth and development. Some of these activities include Goldbelt, Inc. land selection options and use plans, Sealaska plans for a petrochemical plant, routing of the natural gas transmission system from Alaska's North Slope to the Lower 48 states, Capital Site Planning Commission studies of socio-economic impacts on Juneau resulting from alternative capital relocation schemes, Tongass Forest land use plans, and the various transportation studies previously cited. Along with monitoring of these activities, the Phase II effort will include in its public participation program, the issue of population growth and its impacts on coastal area use and enjoyment.

4. Economic Relationships

Every indicator used in analysis of the community's economic base points to the heavy dependence of Juneau on government; specifically state government employment, as the mainstay of its economic stability.

The City/Borough Assembly, cognizant of the dangers inherent in figuratively having all its economic eggs in such a precarious basket, has embarked on a program of economic diversification.

The economic development effort, although still in its early stages, has already identified certain broad categories of economic activity which appear to have considerable potential for assisting in creation of employment opportunities and diversifying the local economy. Many of these economic possibilities, currently under study as to their feasibility, are directly related to natural resource (mining, fisheries, timber) development, while others deal with tourism, transportation, recreational opportunities, industrial development of various types, and Juneau's role as the regional center of the northern Panhandle.

An important element of the Phase II effort will be close coordination with the community's economic development program to assure that the important function of enhancing Juneau's economy and employment opportunities will go forward in concert with the standards and policies of the coastal management program, and that ample space is allocated for coast-related enterprises.

5. Public Facilities and Services

The rate of residential and commercial growth in the Lemon Creek, Mendenhall Valley and Auke Bay areas, has outstripped the ability of the City and Borough to provide adequate public facilities; specifically, sewer and water services. Flows at the Mendenhall Sewage Treatment Plant, constructed in 1972, already exceed design capacity by 100%, and the area between the Juneau Service Area and the Mendenhall Valley, including the Lemon Creek area, is not presently served by a public treatment facility.

Acme Disposal Company has apparently sold its equipment and solid waste landfill area to another local firm. The new operator is presently a heavy construction contractor, and is in possession of equipment capable of trenching to depths of 50 feet below the water line. It is hoped that the sanitary landfill (recently termed "a dump" by the Alaska Department of

Environmental Conservation) can now be operated in a manner consistent with community desires for environmental protection, and applicable landfill regulations.

Phase II will address the relationship of public facilities and services to community growth and population distribution. The Juneau Coastal Management Program, in its role of defining a coastal area land use plan, should also be a tool to assist the community in its detailed public facilities planning.

6. Visual Quality

Those who daily travel the ten or so miles to town from the Mendenhall Valley are familiar with the ever-changing character of the Juneau area scenic resources. The mists rising from the grasslands of the tidal flats will, one day, soften the vista to a hazy pastel scene, while the next day's brilliant sunshine will reveal the rugged peaks of Douglas Island towering in sharp relief over the sparkling blue waters of Gastineau Channel.

Atmospheric conditions, rain, snow, stage of the tide, time of day, season, cloud formations, brightness and sea conditions all contribute to the incredible diversity of views offered from almost any point in the coastal area. If one thing is constantly present in the Juneau scenery, it is the backdrop of forested slopes blending into the precipitous snow-capped mountains of the Coast and Chilkat Ranges.

Ice-blue glaciers, deep-scoured fiords, protected waters of the Inside Passage, dense coastal forests, gently sloping gravel beaches, great tidal variation which exposes colorful and productive wetland marshes, offshore islands that provide these same landforms in miniature, and the majestic mountains of Southeast Alaska, constitute the major scenic resources which residents and visitors can enjoy in Juneau's coastal area. Waterfront views of the central areas of Juneau and Douglas, consisting of docks, piers,

buildings and structures, boat harbors, and a variety of commercial, industrial and transportation facilities, are rendered less "urban" by the background of houses clinging to the slopes behind the waterfront, and the dominating effect of the mountains looming over the whole scene.

With over 2,000 boats registered in Juneau, and saltwater fishing and boating so popular in the area, the view from the water assumes equal importance with vistas from the shore. Thus the Phase I study of scenic resources concentrated equally on outlooks available from the highway transportation corridor, and impressions gained from a boat plying the waters from Point Salisbury to Berners Bay.

Over 300 photographic slides are contained in the inventory, and the identification of particularly valuable scenic resources, as well as those that are felt to be vulnerable to degradation, will be an issue for discussion in the public participation component of the Phase II work program.

7. Public Access and Recreation

With all but 50 miles of the over 202 miles of coastline in the Planning Area in public or quasi-public management, shoreline access is generally excellent. All formal points of access and recreational areas have been noted on large-scale work maps prepared in connection with Phase I planning, and are shown schematically on Map 9 in this report.

Access and recreation are important elements of the Juneau Coastal Management Program. In cooperation with the City/Borough Parks and Recreation Committee and the general public, the thrust of the Phase II work on these elements will be identification as areas which should be formally designated and protected for access and recreational purposes. Coordination of this effort with the Forest Service and the State Division of Parks is particularly important, as the recreation inventory indicates many of the most popular areas to be within the management jurisdiction of those agencies.

The chronic shortage of small boat moorage facilities will also be addressed with assistance of the Small Boat Harbor Committee, Economic Diversification Committee, and the public participation program; and recommendations made for allocation of space in appropriate locations for this important activity.

8. Biological Resources

Conservation, protection and enhancement of the natural processes of the coastal area is a basic principle of coastal management planning. Phase I of Juneau's coastal program, through its inventories of geology, soils, hydrology, climate, vegetation, and fish and wildlife resources, has compiled part of the data base necessary to develop such a conservation program.

The Juneau Coastal Management Program is predicated on the hypothesis that conflict between development and conservation interests is not inevitable. If the program is to be successful in achieving its goal of "balanced use, development, conservation and protection of our coastal resources", it must show how potentially beneficial economic development activities may be pursued with a minimum of disruption of the natural systems. Development of such a strategy will require understanding the impacts that various activities can exert on coastal resources, and devising standards that will minimize negative influences on important natural systems.

Pursuit of the factual basis for such standards will constitute an important segment of Phase II, and will involve coordination with several federal and state agencies. Significant to this effort will be the work underway by the Alaska Department of Fish and Game (under contract with the Alaska Coastal Management Program) which will describe and map ecosystems and biophysical zones of influence.

9. Mineral and Energy Relationships

In April, 1977, the City/Borough Planning Department published a report entitled Juneau Outer Continental Shelf Oil Impact Examination: Phase I.

That work concludes that OCS activity underway currently in the Gulf of Alaska offshore from Yakutat, will have some secondary impacts on the Juneau area over the coming five to ten years. These impacts are anticipated to be associated primarily with increased population resulting from the desire of OCS workers to have their families located relatively nearby. While the report does not find the immediate Juneau area likely to be selected as a site for offshore platform construction or a major service base, it does not totally rule out such possibilities. It goes on to hypothesize that if the Cross Sound area was selected for platform construction activities, Juneau might be faced with a "greater role in supplying goods and services to the area, which is now little developed."

Supply of service and maintenance is the same role foreseen for Juneau by the Economic Diversification Committee in the event of hard-rock mineral exploration and development in northern Southeast.

Routing of the natural gas transmission system from Alaska's North Slope to the lower 48 states will be a matter of concern in the Phase II study, as a spur line to Haines could trigger a totally different industrial development picture for Southeast Alaska, particularly in view of the recent announcement by Sealaska Corporation of its intent to enter the petrochemical and energy development field.

10. Educational and Scientific Uses

The University of Alaska/Juneau is presently constructing a facility at Auke Bay which will be the home of its fisheries programs, and will offer both Bachelors and Masters degrees in Fisheries. The site of the new facility was selected to provide students and researchers access to both saltwater and freshwater fishes. The curriculum will include a broad range of scientific and management courses concerning all aspects of marine and anadromous fisheries.

The Auke Bay Fisheries Laboratory is a facility of the National Marine Fisheries Service, a branch of the National Oceanographic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce. NOAA has a number of oceanographic and fisheries research projects underway, the results of which are expected to provide useful information to the local coastal management effort. NOAA research vessels are accommodated at the Auke Bay Lab dock, and occasionally at the National Park Service Indian Cove facility.

Two private salmon hatcheries have been approved by the state, one at Sheep Creek near Thane Road, and the other at Kowee Creek in proximity to the Douglas Bridge. The Department of Fish and Game maintains fish-rearing cribs in Fritz Cove off North Douglas Island.

Both the Mendenhall Wetlands and the tidal flats of the Eagle River area have been utilized for many years by Juneau-Douglas High School classes for biological and environmental field studies. Stream gaging by the Water Resources Division of the U.S. Geological Survey, and the continuing meteorological monitoring and forecasting activities of the National Weather Service, are additional scientific pursuits important to the Juneau area.

One of the Phase II study tasks will involve further detailing of educational and scientific activities which utilize, or plan to utilize, the coastal area, and evaluation of the future needs of these activities in terms of space, environmental quality, location and research objectives.

11. Conservation and Preservation Areas

Other than the Mendenhall Wetlands State Game Refuge, no official conservation or preservation areas have been designated for environmental protection. Forest Service classifications (or management zones), include several categories in which visual quality, recreation and maintenance of fish and wildlife habitat are stressed as management objectives.

Both bald and golden eagles are protected by federal law and regulations. An agreement between the U.S. Fish and Wildlife Service and the U.S. Forest Service specifies that no tree will be cut within a 330 foot (5 chain) radius of an identified eagle tree on Forest Service land.

Identification, protection and preservation of sites, properties and structures with historical significance is well underway. The National Register of Historic Places, as of the end of 1976, contained five locations in Juneau:

- Eldred Rock Lighthouse in Lynn Canal
- Governor's Mansion on Calhoun Avenue
- House of Wickersham on 7th Street
- St. Nicholas Russian Orthodox Church on 5th Street
- Fort Durham site at Taku Harbor

The Alaska Division of Parks is presently considering the merits of five sites submitted by the City/Borough for 1977 nomination to the National Historic Register. 24 other sites that may qualify for the Register are under study for proper documentation of their historic value, and an additional 15 have been submitted and are awaiting preliminary review by the Division of Parks.

The Phase I study has identified a number of significant historic and archeological resources. Further evaluation of these resources, as well as scenic, habitat and biological values, will be among the tasks of Phase II leading to a management program including adequate protection for areas selected as appropriate for conservation or preservation status.

B. PHASE I SUMMARY OF FACTORS LEADING TO AN EVALUATION OF LAND AND WATER RESOURCE USE CAPABILITIES

Phase I of Juneau's Coastal Management Program has inventoried physical, social, economic and environmental aspects of coastal area land and water resources. Present uses, ownership and management of these resources has also been presented, as well as an overview of research, development and conservation activities currently underway. A preliminary set of basic principles, assumptions and objectives for the program has been stated, and will undergo public scrutiny and amendment as planning proceeds.

From factual and analytical work documented in the Phase I report, the following evaluative conclusions have been drawn:

- o Juneau's geographic orientation and topography have largely dictated the patterns of urban development that have occurred in the community, and will be a controlling factor in future development.
- o As population of the Juneau area has increased, demands on land and water resources have intensified. These demands have included recreation, commerce, industry, transportation and residential uses of the coastal area.
- o Most of Juneau's coastal area is controlled and managed by the U.S. Forest Service. Continuing coordination between that federal agency and the City/Borough will be essential to development of a plan recognizing national as well as local interests and concerns.
- o Juneau's coastal area includes resources that are of regional or state-wide significance. Recognizing these areas of "greater than local" concern and the valid management objectives of state agencies with respect to these resources, it is necessary to work with these agencies in a spirit of mutual trust and respect to insure that the public interest is advanced and protected.

- o Regardless of the outcome of the capital relocation, diversification of Juneau's economic base is necessary and desirable.
- o The overall visual quality of Juneau's coastal area is outstanding, and the area contains historic, cultural and archeological resources of great value.
- o If social and economic activities are appropriately sited, thoughtfully conceived and carefully developed, Juneau's coastal area will be physically capable of absorbing the increased demands foreseen on its resources without serious negative environmental consequences.
- o The knowledge, concern and dedication exist in Juneau to design and implement a balanced program of coastal area development and conservation within broad guidelines to be developed by the Alaska Coastal Policy Council.
- o The people of Juneau are interested in and concerned with the resources of their coastal area, and will continue to actively participate in the decision-making process.

* * * *

V. JUNEAU COASTAL MANAGEMENT PROGRAM

A. PLANNING PROGRAM

The Juneau Coastal Management Program development has been divided into two phases, with this report constituting the first phase "product."

The second phase of the program is scheduled to commence sometime after November 1, 1977 (when federal FY 78 funds become available through the Alaska Department of Community and Regional Affairs), and is targeted for completion in the summer of 1978.

The overall program consists of nine components or elements. The background research element resulted in the inventory and examinations contained in this report, and preliminary work has also been accomplished on four other study elements. The following table lists components of the coastal management program, and the phase in which each element is scheduled to be addressed:

<u>Component</u>	<u>Phase</u>
PUBLIC PARTICIPATION	I and II
INVENTORY, EXAMINATION AND COMMENTARY	I
ANALYSIS AND EVALUATION	I and II
COORDINATION	I and II
STATEMENT OF GOALS AND OBJECTIVES	I and II
ESTABLISHMENT OF COASTAL AREA BOUNDARIES	I and II
DEVELOPMENT OF RECOMMENDED LAND AND WATER USE POLICIES AND STANDARDS	II
IDENTIFICATION OF AREAS WHICH MERIT SPECIAL ATTENTION ¹ .	II
DEVELOPMENT OF RECOMMENDED MANAGEMENT PROGRAM ² .	II

1. Areas of regional interest, areas of particular concern

2. Implementation and coordination systems.

The Juneau Coastal Management Program planning products will include:

- PHASE I REPORT - ...an interim technical report which documents the progress made toward development of the coastal management program, refers to more detailed research material on file in the City/Borough Planning Department, and serves as a working document in the conduct of the Phase II study effort.
- PHASE II REPORT - ...a final technical report which incorporates the findings, goals, objectives and alternatives, as well as recommended policies, standards and implementation procedures of the Juneau Coastal Management Program.
- JUNEAU'S COASTAL AREA - ...a final report to the people of Juneau and the Alaska Coastal Policy Council. This report will be a concise, readable, and non-technical summary of the purpose, goals, objectives and strategies of the Juneau Coastal Management Program; its coordination with the Alaska Coastal Management Program, and the anticipated relationship of its implementation to Juneau's overall growth and development.

B. PROGRAM IMPLEMENTATION AND COORDINATION

The Juneau Coastal Management Program is intended to supplement the City and Borough Comprehensive Plan. Through its emphasis on the potential for

beneficial use and conservation of the area's coastal resources, it is expected that the program will stress land and water management in the coastal area in substantially more detail than the general plan.

Designation of areas in which water-dependent uses are encouraged; establishment of regulations protecting certain areas of critical historic, scenic, biological or scientific value; identification of areas of regional significance, and accomplishment of other coastal management objectives, are anticipated to be approached through amendments to the zoning ordinance and subdivision regulations, and establishment of formal coordination procedures with state and federal agencies having management and/or permit responsibilities and authority. Existing statutes, ordinances, authorities and regulatory agencies will be used to the greatest extent possible in implementation of Juneau's coastal management program.

The Alaska Coastal Policy Council, recently appointed by Governor Hammond, has responsibility for establishing broad standards and guidelines to be applied to the review of local, or district, coastal management programs such as Juneau's. During the second phase of Juneau's program, which will develop recommended implementation and regulatory tools for adoption by the City/Borough Assembly, close liaison will be maintained with the Office of Coastal Management in the Division of Policy Development and Planning to assure that Juneau's program is consistent with statewide goals and objectives as expressed by the Council.

* * * * *

APPENDIX 'A'

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APPENDIX 'B'

ALASKA COASTAL MANAGEMENT ACT



LAWS OF ALASKA

1977

Source

CCS SCS CSHB 342

Chapter No.

84

AN ACT

Relating to the management of the coastal resources of the state; and providing for an effective date.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* Section 1. LEGISLATIVE FINDINGS. The legislature finds that

- (1) the coastal area of the state is a distinct and valuable natural resource of concern to all the people of the state;
- (2) the demands upon the resources of the coastal area are significant, and will increase in the future;
- (3) the protection of the natural and scenic resources and the fostering of wise development of the coastal area are of concern to present and future citizens of the state;
- (4) the capacity of the coastal area to withstand the demands upon it is limited;
- (5) the degree of planning and resource allocation which has occurred in the coastal area has often been motivated by short-term considerations, unrelated to sound planning principles; and
- (6) in order to promote the public health and welfare, there is a critical need to engage in comprehensive land and water use planning in coastal areas and to establish the means by which a planning process and management program involving the several governments and areas of the unorganized borough having an interest in the coastal area may be effectively implemented.

* Sec. 2. LEGISLATIVE POLICY. It is the policy of the state to

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(1) preserve, protect, develop, use, and, where necessary, restore or enhance the coastal resources of the state for this and succeeding generations;

(2) encourage coordinated planning and decision making in the coastal area among levels of government and citizens engaging in or affected by activities involving the coastal resources of the state;

(3) develop a management program which sets out policies, objectives, standards and procedures to guide and resolve conflicts among public and private activities involving the use of resources which have a direct and significant impact upon the coastal land and water of the state;

(4) assure the participation of the public, local governments, and agencies of the state and federal governments in the development and implementation of a coastal management program;

(5) utilize existing governmental structures and authorities, to the maximum extent feasible, to achieve the policies set out in this section; and

(6) authorize and require state agencies to carry out their planning duties, powers and responsibilities and take actions authorized by law with respect to programs affecting the use of the resources of the coastal area in accordance with the policies set out in this section and the guidelines and standards adopted by the Alaska Coastal Policy Council under AS 46.35.

* Sec. 3. AS 44.19 is amended by adding new sections to read:

ARTICLE 11A. ALASKA COASTAL POLICY COUNCIL.

Sec. 44.19.891. ALASKA COASTAL POLICY COUNCIL. (a) There is created in the Office of the Governor the Alaska Coastal Policy Council. The council consists of the following:

(1) nine public members appointed by the governor from a list comprised of at least three names from each region, nominated by the municipalities of each region; the nominees shall be the mayor or member of the assembly or council of a municipality; one public member shall be appointed from each of the following general regions:

(A) northwest Alaska, including, generally, the area of the North Slope Borough and the Northwest Arctic regional educational attendance area;

(B) Bering Straits, including, generally, the area of the Bering Straits regional educational attendance area;

(C) southwest Alaska, including, generally, the area within the Lower Yukon, Lower Kuskokwim, Southwest, and Lake-Peninsula regional educational attendance areas and the Bristol Bay Borough;

(D) Kodiak-Aleutians, including the area of the Kodiak Island Borough and the Aleutian, Adak and Pribilof regional educational attendance areas.

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(E) Upper Cook Inlet, including the Municipality of Anchorage and the Matanuska-Susitna Borough;

(F) Lower Cook Inlet, including, generally, the area within the Kenai Peninsula Borough;

(G) Prince William Sound, including, generally, the area east of the Kenai Peninsula Borough to 141° W. longitude;

(H) northern Southeast Alaska, including the area southeast of 141° W. longitude and north of 57° N. latitude, including the entirety of the City and Borough of Sitka; and

(I) southern Southeast Alaska, including that portion of southeastern Alaska not contained within the area described in (H) of this paragraph;

(2) each of the following:

(A) the director of the division of policy development and planning;

(B) the commissioner of the Department of Commerce and Economic Development;

(C) the commissioner of the Department of Community and Regional Affairs;

(D) the commissioner of the Department of Environmental Conservation;

(E) the commissioner of the Department of Fish and Game;

(F) the commissioner of the Department of Natural Resources; and

(G) the commissioner of the Department of Public Works.

(b) Each public member appointed by the governor under (a) (1) of this section serves a term of two years and until his successor is appointed and qualified, except that the term of office of a public member first appointed under (a) (1) (A), (a) (1) (C), (a) (1) (E) and (a) (1) (G) of this section shall be one year. A public member may be reappointed.

(c) The council shall designate co-chairmen, one of whom shall be selected from among the public members appointed under (a) (1) of this section and one from among the members designated in (a) (2) of this section.

(d) Members appointed under (a) of this section may select one person to serve as a permanent alternate at meetings of the council. If the member appointed is unable to attend, the alternate may act in his place.

(e) Four public members and three designated members of the council constitute a quorum, but one or more of the members designated by the council may hold hearings. All decisions of the council shall be by a majority vote of the

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members present and voting.

(f) Members of the council or their alternates are entitled to per diem and travel expenses authorized by law for members of boards and commissions.

(g) If there is a vacancy among the public members appointed under (a) (1) of this section, the governor shall make an appointment to become immediately effective for the unexpired portion of the term.

Sec. 44.19.892. POWERS OF THE COUNCIL. The council may

(1) apply for and accept grants, contributions, and appropriations, including application for and acceptance of federal funds which may become available for coastal planning and management;

(2) contract for necessary services;

(3) consult and cooperate with

(A) persons, organizations, and groups, public or private, interested in, affected by, or concerned with coastal area planning and management;

(B) agents and officials of the coastal resource districts of the state, and federal and state agencies concerned with or having jurisdiction over coastal planning and management;

(4) take any reasonable action necessary to carry out the provisions of secs. 891 - 894 of this chapter.

Sec. 44.19.893. DUTIES OF THE COUNCIL. In conformity with the Coastal Zone Management Act of 1972, as amended (16 U.S.C. 1451 et seq.), the council shall

(1) through the public hearing process and the recording of the minutes of the hearings, develop guidelines and standards for the preparation of, and approve, in accordance with AS 46.35, the Alaska coastal management program;

(2) establish continuing coordination among state agencies to facilitate the development and implementation of the Alaska coastal management program; in carrying out its duties under this paragraph, the council shall initiate an interagency program of comprehensive coastal resource planning for each geographic region described in sec. 891 - (a) (1) of this chapter;

(3) assure continued provision of data and information to coastal resource districts to carry out their planning and management functions under the program;

(4) submit annually to the legislature, not later than the 10th day of each regular session, the portion of the coastal management program approved or amended by the council during the preceding year.

Sec. 44.19.894. COUNCIL STAFF. The council shall

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utilize the staff of the office of coastal management within the division of policy development and planning in discharging its powers and duties. The coordinator of the office, with the concurrence of the council, may contract with or employ personnel or consultants he considers necessary to carry out the powers and duties of the council.

* Sec. 4. AS 46 is amended by adding a new chapter to read:

CHAPTER 35. THE ALASKA COASTAL MANAGEMENT PROGRAM.

ARTICLE 1. DEVELOPMENT OF ALASKA COASTAL MANAGEMENT PROGRAM.

Sec. 46.35.010. DEVELOPMENT OF ALASKA COASTAL MANAGEMENT PROGRAM. (a) The Alaska Coastal Policy Council established in AS 44.19.891 shall approve, in accordance with secs. 10 - 210 of this chapter, the Alaska coastal management program.

(b) The council may approve the Alaska coastal management program for a portion or portions of the coastal area before approving the complete program under (a) of this section. Portions of the program approved under this subsection shall be incorporated into the Alaska coastal management program.

(c) The Alaska coastal management program shall be reviewed by the council and, when appropriate, revised to

(1) add newly approved district coastal management programs, or revisions and amendments to the Alaska coastal management program;

(2) integrate newly approved district coastal management programs, or revisions and amendments of district coastal management programs, with existing approved programs and with plans developed by state agencies;

(3) add new or revised state statutes, policies, regulations or other appropriate material;

(4) review the effectiveness of implementation of district coastal management programs; and

(5) consider new information acquired by the state and coastal resource districts.

(d) All reviews and revisions shall be in accordance with the guidelines and standards adopted by the council under sec. 40 of this chapter.

Sec. 46.35.020. OBJECTIVES. The Alaska coastal management program shall be consistent with the following objectives:

(1) the use, management, restoration and enhancement of the overall quality of the coastal environment;

(2) the development of industrial or commercial enterprises which are consistent with the social, cultural, historic, economic and environmental interests of the people of the state;

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(3) the orderly, balanced utilization and protection of the resources of the coastal area consistent with sound conservation and sustained yield principles;

(4) the management of coastal land and water uses in such a manner that, generally, those uses which are economically or physically dependent on a coastal location are given higher priority when compared to uses which do not economically or physically require a coastal location;

(5) the protection and management of significant historic, cultural, natural and aesthetic values and natural systems or processes within the coastal area;

(6) the prevention of damage to or degradation of land and water reserved for their natural values as a result of inconsistent land or water usages adjacent to that land;

(7) the recognition of the need for a continuing supply of energy to meet the requirements of the state and the contribution of a share of the state's resources to meet national energy needs; and

(8) the full and fair evaluation of all demands on the land and water in the coastal area.

Sec. 46.35.030. DEVELOPMENT OF DISTRICT COASTAL MANAGEMENT PROGRAMS. Coastal resource districts shall develop and adopt district coastal management programs in accordance with the provisions of this chapter. The program adopted by a coastal resource district shall be based upon a municipality's existing comprehensive plan or a new comprehensive resource use plan or comprehensive statement of needs, policies, objectives and standards governing the use of resources within the coastal area of the district. The program shall be consistent with the guidelines and standards adopted by the council under sec. 40 of this chapter and shall include:

(1) a delineation within the district of the boundaries of the coastal area subject to the district coastal management program;

(2) a statement, list, or definition of the land and water uses and activities subject to the district coastal management program;

(3) a statement of policies to be applied to the land and water uses subject to the district coastal management program;

(4) regulations, as appropriate, to be applied to the land and water uses subject to the district coastal management program;

(5) a description of the uses and activities which will be considered proper and the uses and activities which will be considered improper with respect to the land and water within the coastal area;

(6) a summary or statement of the policies which will be applied and the procedures which will be used to determine whether specific proposals for land or water uses

or activities shall be allowed; and

(7) a designation of, and the policies which will be applied to the use of, areas within the coastal resource district which merit special attention.

Sec. 46.35.040. DUTIES OF THE ALASKA COASTAL POLICY COUNCIL. Through the public hearing process and the recording of the minutes of the hearings, the Alaska Coastal Policy Council shall

(1) by regulation, adopt under the provisions of the Administrative Procedure Act (AS 44.62), within six months of the effective date of this Act, for the use of and application by coastal resource districts and state agencies for carrying out their responsibilities under this chapter, guidelines and standards for

(A) identifying the boundaries of the coastal area subject to the district coastal management program;

(B) determining the land and water uses and activities subject to the district coastal management program;

(C) developing policies applicable to the land and water uses subject to the district coastal management program;

(D) developing regulations applicable to the land and water uses subject to the district coastal management program;

(E) developing policies and procedures to determine whether specific proposals for the land and water uses or activities subject to the district coastal management program shall be allowed;

(F) designating and developing policies for the use of areas of the coast which merit special attention; and

(G) measuring the progress of a coastal resource district in meeting its responsibilities under this chapter;

(2) develop and maintain a program of technical and financial assistance to aid coastal resource districts in the development and implementation of district coastal management programs;

(3) undertake review and approval of district coastal management programs in accordance with this chapter;

(4) initiate a process for identifying and managing uses of state concern within specific areas of the coast;

(5) develop procedures or guidelines for consultation and coordination with federal agencies managing land or conducting activities potentially affecting the coastal area of the state.

Sec. 46.35.050. ACTION AND SUBMISSION BY COASTAL RESOURCE DISTRICTS. Each coastal resource district shall make substantial progress, in the opinion of the council, toward completion of an approvable district coastal management program and shall complete and submit to the council for approval its program within 30 months of the effective date of this Act or within 30 months of certification of the results of the district's organization, whichever is later.

Sec. 46.35.060. REVIEW AND APPROVAL BY COUNCIL. (a) If, upon submission of a district coastal management program for approval, the council finds that the program is substantially consistent with the provisions of this chapter and the guidelines and standards adopted by the council and does not arbitrarily or unreasonably restrict or exclude uses of state concern, the council may grant summary approval of the district coastal management program, or may approve portions of the district program which are consistent.

(b) If the council finds that a district coastal management program is not approvable or is approvable only in part under (a) of this section, it shall direct that deficiencies in the program submitted by the coastal resource district be mediated. In mediating the deficiencies, the council may call for one or more public hearings in the district. The council shall meet with officials of the coastal resource district in order to resolve differences.

(c) If, after mediation, the differences have not been resolved to the mutual agreement of the coastal resource district and the council, the council shall call for a public hearing and shall resolve the differences in accordance with the Administrative Procedure Act (AS 44.62). After a public hearing held under this subsection, the council shall enter findings and, by order, may require

(1) that the district coastal management program be amended to make it consistent with the provisions of this chapter or the guidelines and standards adopted by the council;

(2) that the district coastal management program be revised to accommodate a use of state concern; or

(3) any other action be taken by the coastal resource district as appropriate.

(d) The superior courts of the state have jurisdiction to enforce orders of the council entered under (c) of this section.

Sec. 46.35.070. STANDARDS FOR COUNCIL REVIEW AND APPROVAL. (a) The council shall approve a district coastal management program submitted for review and approval if the program is consistent with the provisions of this chapter and the guidelines and standards adopted by the council.

(b) Notwithstanding an inconsistency of a district coastal management program submitted for review and approval with the guidelines and standards adopted, the council shall approve the program if it finds that

water use regulations or controls in conformity with district coastal management programs approved by the council and the legislature and in effect.

(b) On petition of a coastal resource district, a citizen of the district, or a state agency, showing that a district coastal management program is not being implemented, enforced or complied with, the council shall convene a public hearing to consider the matter. A hearing called under this subsection shall be held in accordance with the Administrative Procedure Act (AS 44.62). After hearing, the council may order that the coastal resource district or state agency take any action which the council considers necessary to implement, enforce or comply with the district coastal management program.

(c) In determining whether an approved district coastal management program is being implemented, enforced or complied with by a coastal resource district which exercises zoning authority or controls on the use of resources within the coastal area, the council shall find in favor of the district if

(1) zoning or other regulations have been adopted and are being enforced;

(2) variances are being granted according to procedures and criteria which are elements of the district coastal management program, or the variance is otherwise approved by the council; and

(3) procedures and standards adopted by the coastal resource district as required by this chapter or by the guidelines and standards adopted by the council and subsequently approved by the legislature have been followed and considered.

(d) In determining whether a state agency is complying with a district coastal management program with respect to its exercise of regulation or control of the resources within the coastal area, the council shall find in favor of the agency if

(1) the use or activity for which the permit, license or approval is granted is consistent with the district coastal management program and regulations adopted under it; and

(2) the use or activity for which the permit, license or approval is granted is consistent with requirements imposed by state statute, regulation, or local ordinance applicable to the use or activity.

(e) The superior courts of the state have jurisdiction to enforce lawful orders of the council.

ARTICLE 2. COASTAL MANAGEMENT PROGRAMS
IN THE UNORGANIZED BOROUGH.

Sec. 46.35.110. AUTHORITY IN THE UNORGANIZED BOROUGH. Under AS 29.03.020 and secs. 110 - 180 of this chapter, the legislature authorizes organization of coastal resource service areas in the unorganized borough and grants

(1) strict adherence to the guidelines and standards adopted would result in a violation of another state law or policy;

(2) strict adherence to the guidelines and standards adopted would cause or probably cause substantial irreparable harm to another interest or value in the coastal area of the district; or

(3) the inconsistency is of a technical nature and no substantial harm would result to the policies and objectives of this chapter or the Alaska coastal management program.

(c) In determining whether a restriction or exclusion of a use of state concern is arbitrary or unreasonable, the council shall approve the restriction or exclusion if it finds that

(1) the coastal resource district has consulted with and considered the views of appropriate federal, state or regional agencies;

(2) the district has based its restriction or exclusion on the availability of reasonable alternative sites; and

(3) the district has based its restriction or exclusion on an analysis showing that the proposed use is incompatible with the proposed site.

(d) A decision by the council under this section shall be given within 90 days.

Sec. 46.35.080. EFFECTIVE DATE OF ALASKA COASTAL MANAGEMENT PROGRAM. The Alaska coastal management program adopted by the council, and any additions, revisions, or amendments of the program, take effect upon adoption of a concurrent resolution by a majority of the members of each house of the legislature or by a vote of the majority of the members of each house at the time the houses are convened in joint session to confirm executive appointments submitted by the Governor.

Sec. 46.35.090. IMPLEMENTATION OF DISTRICT COASTAL MANAGEMENT PROGRAMS. (a) A district coastal management program approved by the council and the legislature for a coastal resource district which does not have and exercise zoning or other controls on the use of resources within the coastal area shall be implemented by appropriate state agencies. Implementation shall be in accordance with the comprehensive use plan or the statement of needs, policies, objectives and standards adopted by the district.

(b) A coastal resource district which has and exercises zoning or other controls on the use of resources within the coastal area shall implement its district coastal management program. Implementation shall be in accordance with the comprehensive use plan or the statement of needs, policies, objectives and standards adopted by the district.

Sec. 46.35.100. COMPLIANCE AND ENFORCEMENT. (a) Municipalities and state agencies shall administer land and

authority to the service areas which may be organized to perform the duties required under this chapter.

Sec. 46.35.120. COASTAL RESOURCE SERVICE AREAS. (a) Except as provided in (b) of this section, each regional educational attendance area established under AS 14.08.031 containing a part of the coastal area may be organized as a coastal resource service area.

(b) The commissioner of the Department of Community and Regional Affairs may, after public hearings held in the area affected, consolidate two or more regional educational attendance areas as a single coastal resource service area

(1) if a substantial portion of the coastal area contains land and water area owned by the federal government over which it exercises exclusive jurisdiction or land held in trust by the federal government for Alaska Natives over which the state would not exercise control as to use; or

(2) if, after giving due consideration to the standards applicable to incorporation of borough governments and the likelihood that a borough will be incorporated within the area, the commissioner determines that the functions to be performed under this chapter could be undertaken more efficiently through the combination of two or more regional educational attendance areas as a single coastal resource service area.

(c) A determination under (b) of this section shall be made before organization of the coastal resource service area and no later than six months from the effective date of this Act.

Sec. 46.35.130. ORGANIZATION OF COASTAL RESOURCE SERVICE AREA. (a) Organization of a coastal resource service area may be initiated by

(1) submission to the council of a petition signed by a number of registered voters equal to 15 per cent of the number of votes cast within the coastal resource service area at the last state general election;

(2) submission to the council of a resolution approved by the city council or traditional village council of not less than 25 per cent of the number of cities and villages within the coastal resource service area; or

(3) at the direction of a majority of the members of the council in the manner set out in sec. 160 of this chapter.

(b) Acting at the request of the council, the lieutenant governor, not less than 60 nor more than 90 days after receipt of a proper petition under (a)(1) of this section, a proper resolution under (a)(2) of this section, or at the direction of the council under (a)(3) of this section, shall conduct an election on the question of organization of a coastal resource service area.

Sec. 46.35.140. COASTAL RESOURCE SERVICE AREA BOARDS. (a) Each coastal resource service area, upon organization, shall have an elected board representing the population of

the service area. The board shall have the powers and duties and perform the functions prescribed for or required of coastal resource districts.

(b) A coastal resource service area board shall contain seven members. Board members shall be elected at large by the qualified voters of the coastal resource service area.

(c) The commissioner of the Department of Community and Regional Affairs, after consultation with residents of a coastal resource service area, may divide a service area into sections only for the purpose of nominating and electing board members. Division of a service area into sections for the purpose of nomination and election shall be in accordance with the provisions of AS 14.08.051(a). Division may be proposed in the petition submitted under sec. 130. (a)(1) of this chapter, in the resolution submitted under sec. 130(a)(2) of this chapter, at the direction of the council under sec. 130(a)(3) of this chapter, or may be proposed at any time by the members of the coastal resource service area board. If proposed by the board, the division of the service area into sections is subject to approval of a majority of the qualified voters voting on the question in the coastal resource service area at the next regular election or at a special election called for that purpose and, if approved, takes effect at the next regular election of members of the coastal resource service area board.

(d) The term of office of a member of a coastal resource service area board is three years, except that the terms of the members of the first board elected after organization of a coastal resource service area shall be determined by lot, with two members serving one-year terms, two members serving two-year terms, and three members serving three-year terms. Members serve until their successors are elected and have qualified. Nothing in this section prohibits the reelection of a board member.

(e) The lieutenant governor shall provide for the election of the members of coastal resource service area boards. The first election of board members shall occur not less than 60 nor more than 90 days after certification of the results of an organization election under sec. 130(b) of this chapter in which a majority of votes cast favors organization of the coastal resource service area.

(f) Except for the first election of members of coastal resource service area boards, elections shall be held annually on the date of election of members of regional educational attendance area boards under AS 14.08.071(b).

(g) A vacancy on a coastal resource service area board shall be filled by appointment as provided in AS 14.08.041. (a) for vacancies in the membership of regional educational attendance area boards.

(h) Members of coastal resource service area boards are subject to recall on the same grounds and in the same manner as provided for recall of municipal officials in AS 29.28.130 - 29.28.250. The lieutenant governor functions in place of the assembly or council and municipal clerk for receipt and review of recall petitions and the conduct of

recall elections.

Sec. 46.35.150. ELECTIONS IN COASTAL RESOURCE SERVICE AREAS. Organization elections under sec. 130 of this chapter and other elections, including recall elections conducted under sec. 140 of this chapter, shall be administered by the lieutenant governor in the general manner provided in the Alaska Election Code (AS 15.05 - 15.60). In addition, the lieutenant governor may adopt regulations necessary to the conduct of coastal resource service area board elections. The state shall pay all election costs.

Sec. 46.35.160. ORGANIZATION AT THE DIRECTION OF THE COUNCIL. (a) Whenever it appears that major economic development activity will occur in a coastal resource service area or in waters adjacent to a coastal resource service area which has not been organized, the council may direct the lieutenant governor to submit to the voters of the service area the question of organization. The council may require an election on the question only after holding at least one public hearing within the area proposed for organization.

(b) For purposes of this section, "major economic development activity" includes a call for nomination by the Secretary of the United States Department of the Interior for leasing of tracts within petroleum basins in waters of the outer continental shelf adjacent to the coastal resource service area or any other significant industrial or commercial activity which, in the opinion of the council, would commit the resources of the coastal area to a use of direct and significant impact upon the coastal waters of the state.

Sec. 46.35.170. PREPARATION OF DISTRICT COASTAL MANAGEMENT PROGRAM BY THE DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS.

(a) If residents of a coastal resource service area reject organization of the service area at an election called for the purpose and the council finds, after public hearing, that major economic development activity has occurred or will occur within the service area, the council may direct the Department of Community and Regional Affairs to prepare and recommend for consideration by the council and for submission to the legislature a district coastal management program for the service area.

(b) At the request of the council, the Department of Community and Regional Affairs shall complete the district coastal management program in accordance with this chapter and the guidelines and standards adopted by the council for a coastal resource service area which has been organized but which has failed to make substantial progress in the preparation of an approvable district coastal management program within 18 months of certification of the results of an organization election or which has not submitted for approval to the council a program within 30 months of certification of the results of its organization election. Preparation of the program shall be conducted in consultation with the coastal resource service area and shall, to the maximum extent consistent with this chapter, reflect the expressed concerns of the residents of the service area.

(c) Before requesting the department to complete the district coastal management program under (b) of this

section, the council shall meet with the members of the coastal resource service area board to determine whether the board is able to complete a district coastal management program within the time limitations established in this section.

Sec. 46.35.180. APPROVAL OF PROGRAMS IN COASTAL RESOURCE SERVICE AREAS. (a) Before adoption by a coastal resource service area board, or by the Department of Community and Regional Affairs under sec. 170 of this chapter, a district coastal management program shall be submitted for review to each city or village within the coastal resource service area. The council of a city or traditional village council shall consider the program submitted for review. Within 60 days of submission, the council of a city or traditional village council shall either approve the program or enter objections to all or any portion of the program.

(b) If a city or village within a coastal resource service area fails to approve a portion of the district coastal management program prepared and submitted for approval under (a) of this section, the governing body shall advise the coastal resource service area board or the department, as applicable, of its objections to the proposed program and suggest alternative elements or components for inclusion in the district coastal management program. New matter submitted by a city or village which is substantially consistent with the guidelines and standards adopted by the council shall be accepted and the district coastal management program modified accordingly. If a city or village fails to provide objections and suggested alternatives within the time limits established in this section, the coastal resource service area board or the department, as applicable, may adopt the district coastal management program as initially offered.

(c) Objection by a city council under (b) of this section is limited to objection to elements of the program affecting resources or the use of resources within the corporate limits of the city. Objection by a traditional village council under (b) of this section is limited to objection to elements of the program affecting resources or the use of resources within the village or within two miles of the village.

(d) For purposes of this section, "village" means an unincorporated community where at least 25 persons reside as a social unit as determined by the Department of Community and Regional Affairs.

ARTICLE 3. GENERAL PROVISIONS.

Sec. 46.35.190. COOPERATIVE ADMINISTRATION. (a) A city within the coastal area which is not part of an adjacent coastal resource service area may include itself for purposes of this chapter within an adjacent coastal resource service area if its governing body, by resolution adopted by a majority of its membership, consents to the inclusion of the city and a copy of the resolution is filed with the commissioner of the Department of Community and Regional Affairs.

(b) Nothing in this chapter restricts or prohibits cooperative or joint administration of functions between a municipality and a coastal resource service area organized under the provisions of this chapter upon initiation of a mutual agreement for the purpose.

Sec. 46.35.200. STATE AGENCIES. Upon the adoption of the Alaska coastal management program, state departments, boards and commissions shall review their statutory authority, administrative regulations, and applicable procedures pertaining to land and water uses within the coastal area for the purpose of determining whether there are any deficiencies or inconsistencies which prohibit compliance with the program adopted. State agencies shall, within six months of the effective date of the Alaska coastal management program, take whatever action is necessary to facilitate full compliance with and implementation of the program, including preparation and submission of recommendations to the council for additional or amended legislation.

Sec. 46.35.210. DEFINITIONS. In this chapter, unless the context otherwise requires,

(1) "area which merits special attention" means a delineated geographic area within the coastal area which is sensitive to change or alteration and which, because of plans or commitments or because a claim on the resources within the area delineated would preclude subsequent use of the resources to a conflicting or incompatible use, warrants special management attention, or which, because of its value to the general public, should be identified for current or future planning, protection, or acquisition; these areas, subject to council definition of criteria for their identification, include:

(A) areas of unique, scarce, fragile or vulnerable natural habitat, cultural value, historical significance, or scenic importance;

(B) areas of high natural productivity or essential habitat for living resources;

(C) areas of substantial recreational value or opportunity;

(D) areas where development of facilities is dependent upon the utilization of, or access to, coastal waters;

(E) areas of unique geologic or topographic significance which are susceptible to industrial or commercial development;

(F) areas of significant hazard due to storms, slides, floods, erosion or settlement; and

(G) areas needed to protect, maintain, or replenish coastal land or resources, including coastal flood plains, aquifer recharge areas, beaches and offshore sand deposits;

(2) "coastal resource district" means each of the following which contains a portion of the coastal area of

the state:

(A) unified municipalities established under AS 29.68.240 - 29.68.440;

(B) organized boroughs of any class which exercise planning and zoning authority;

(C) home rule and first class cities of the unorganized borough or within boroughs which do not exercise planning and zoning authority;

(D) second class cities of the unorganized borough, or within boroughs which do not exercise planning and zoning authority, which have established a planning commission, and which, in the opinion of the commissioner of the Department of Community and Regional Affairs, have the capability of preparing and implementing a comprehensive district coastal management program under sec. 30 of this chapter;

(E) coastal resource service areas established and organized under AS 29.03.020 and secs. 110 - 180 of this chapter;

(3) "council" means the Alaska Coastal Policy Council;

(4) "department" means the Department of Community and Regional Affairs;

(5) "use of direct and significant impact" means a use, or an activity associated with the use, which proximately contributes to a material change or alteration in the natural or social characteristics of a part of the state's coastal area and in which

(A) the use, or activity associated with it, would have a net adverse effect on the quality of the resources of the coastal area;

(B) the use, or activity associated with it, would limit the range of alternative uses of the resources of the coastal area; or

(C) the use would, of itself, constitute a tolerable change or alteration of the resources within the coastal area but which, cumulatively, would have an adverse effect;

(6) "uses of state concern" means those land and water uses which would significantly affect the long-term public interest; these uses, subject to council definition of their extent, include:

(A) uses of national interest, including the use of resources for the siting of ports and major facilities which contribute to meeting national energy needs, construction and maintenance of navigational facilities and systems, resource development of federal land, and national defense and related security facilities that are dependent upon coastal locations;

(B) uses of more than local concern, including those land and water uses which confer significant environmental, social, cultural, or economic benefits or burdens beyond a single coastal resource district;

(C) the siting of major energy facilities or large-scale industrial or commercial development activities which are dependent on a coastal location and which, because of their magnitude or the magnitude of their effect on the economy of the state or the surrounding area, are reasonably likely to present issues of more than local significance;

(D) facilities serving statewide or interregional transportation and communication needs; and

(E) uses in areas established as state parks or recreational areas under AS 41.20 or as state game refuges, game sanctuaries or critical habitat areas under AS 16.20.

* Sec. 5. AS 44.47 is amended by adding a new section to read:

Sec. 44.47.095. PLANNING ASSISTANCE FOR DEVELOPMENT AND MAINTENANCE OF DISTRICT COASTAL MANAGEMENT PROGRAMS. The department shall conduct a program of research, training, and technical assistance to coastal resource districts necessary for the development and implementation of district coastal management programs under AS 46.35. The technical assistance shall include the direct granting to the coastal resource districts of a portion of any funds received by the state from the federal coastal zone management program, in amounts to be individually determined for each coastal resource district by the commissioner. State agencies shall assist the department in carrying out the purposes of this section.

* Sec. 6. The Administrative Regulation Review Committee established in AS 24.20.400 - 24.20.460 shall review the administrative regulations adopted by the executive departments of the state government which affect the resources and use of the resources of the state's coastal area. The committee shall, not later than January 20, 1979, make formal recommendation with respect to annulment of regulations adopted which, in the opinion of the committee, fail to implement, interpret or carry out the policies, objectives and standards of the Alaska coastal management program. The recommendations of the committee shall be transmitted to the first regular session of the Eleventh Alaska Legislature.

* Sec. 7. This Act takes effect immediately in accordance with AS 01.10.070(c).

SUMMARY OF THE ALASKA COASTAL MANAGEMENT ACT

June 16, 1977



ALASKA
COASTAL MANAGEMENT PROGRAM

Office of the Governor
Division of Policy Development
and Planning

Alaska Department of Community
and Regional Affairs
Division of Community Planning

for more copies:

Alaska Coastal Management Program
Pouch AD
Juneau, Alaska 99811
(907) 465-3512

OR

Division of Community Planning
Pouch B
Juneau, Alaska 99811
(907) 465-4706

Alaska Coastal Management Act

In recognition of a critical need to enhance land and water management in coastal areas, the Alaska Legislature recently passed the Alaska Coastal Management Act of 1977. Finding that the Alaskan coast has limited capacity to withstand increasing demands upon its valuable resources, the Act establishes broad State policy to restore, protect, and develop coastal resources. The Act sets forth a process by which development of a State management program, in progress since 1974, may be facilitated. The management program will make use of coordinated planning among different levels of government and private parties to manage land and water uses that have direct and significant impact on coastal resources.

Following is a summary of the Act. The legislation may be read along with the summary by referring to section numbers of the Act, located in the summary text margin.

Alaska Coastal Policy Council

44.19.891 The State coastal management program will be developed
44.19.893 under the guidance of a newly created Alaska Coastal Policy
44.19.894 Council, which will submit the program as it is completed
 to the State Legislature. The Council is established in
 the Governor's Office and is staffed by the Alaska Coastal
44.19.891 Management Program office in the Division of Policy Develop-
 ment and Planning. Membership on the Council includes nine
 "public members" from each of nine general State regions
 outlined in the Act and seven "designated members" from
 each of seven State government agencies.

State Role

The Council has a major role in initiating three important elements of the coastal management program:

- 44.19.893 1) It will begin a State interagency program of compre-
 hensive coastal resource planning for each of the nine
 geographic regions outlined in the Act.
- 46.35.040 2) The Council will establish procedures for coordina-
 tion with federal agencies that manage lands or conduct
 activities in the State coastal area.
- 3) The Council will initiate a process for identifying
 and managing uses of State concern.

District Coastal Programs

- 46.35.040 A second, key activity of the Council is oversight of local, or "district" coastal management programs. District programs are the major components of the overall State management program, which emphasizes a State and local partnership in coastal management. The Council will set guidelines and standards for district programs, and will review and approve the programs. Coastal resource districts will be aided by the Division of Community Planning of the Department of Community and Regional Affairs, in cooperation with other State agencies, to develop and to implement their programs. Research and training, as well as technical and financial assistance, will be made available through the Department. District programs can be developed in two ways:
- 44.47.095
- 46.35.210
- 46.35.030
- 46.35.050 A) All municipalities with planning powers and capabilities are required to complete a district program within thirty months of the Act's passage.
- 46.35.110 B) Remaining areas in the unorganized borough may choose to organize into "coastal resource service areas" to develop district programs. These programs must be complete within thirty months after organization.
- 46.35.050
- 46.35.190 The Act provides for cooperative administration between service areas and municipalities, including voluntary inclusion of cities in adjacent service areas.

Coastal Resource Service Areas

- 46.35.130 A procedure for organizing coastal resource service areas is fully outlined in the Act. It requires voter approval, and election of a board to perform planning functions. Coastal resource service areas will be geographically based on regional educational attendance areas, but they may be consolidated in certain circumstances by the Commissioner of Community and Regional Affairs.
- 46.35.140
- 46.35.120
- 46.35.160 The Council may require an election on the question of organization in areas that are faced with major economic development activity. Such an activity specifically includes a call for nomination for leasing of oil and gas tracts on the adjacent outer continental shelf. If the election in an area of major economic development activity results in voter disapproval of organization, the Council may direct the Department of Community and Regional Affairs to develop a district program for the area.
- 46.35.170

The Council may also request that a district program for a coastal resource service area be completed by the Department of Community and Regional Affairs if substantial progress has not been made within eighteen months after an organization election, or if a service area program has not been submitted for approval within thirty months. In all cases, programs must reflect expressed resident concerns. The service area programs may be modified in certain instances by the councils of cities and certain traditional villages in the service area before they are submitted to the Policy Council for approval.

46.35.170
46.35.180

District Program Elements

46.35.030 District coastal management programs are to be comprehensive, and are to specifically include:

- 1) Delineation of coastal area boundaries;
- 2) Statement of land and water uses and activities subject to the program;
- 3) Policies to be applied to those uses;
- 4) Regulations to be applied to those uses;
- 5) Description of proper and improper uses and activities in the coastal area;
- 6) Policies and procedures which will determine whether specific proposals will be allowed in the coastal area; and
- 7) Designation of and policies concerning "areas which merit special attention", as defined in the Act.

46.35.070 The Act sets standards by which the Council will review and approve district programs. A program must be consistent with Council guidelines and standards, unless strict adherence would violate another State law or policy or would cause substantial irreparable harm to another interest or value in the coastal area, or unless the inconsistency is only technical and would cause no substantial harm. A district program must also not arbitrarily or unreasonably restrict or exclude an area or use of State concern. The Act further defines what is "arbitrary or unreasonable". A Council decision on approval of a district program must be made within ninety days.

Implementation

46.35.090 District programs will be implemented through existing land use controls in municipalities. State agencies will be responsible for implementing programs in areas lacking these powers, in accord with standards and policies adopted by each district. State agencies are required to review and modify their own authorities and procedures to facilitate

46.35.200

46.35.100

full compliance with district programs. District citizens and State agencies are given "watchdog" powers to petition for Council review of progress being made in developing and implementing district programs.

The Alaska Coastal Management Act is a legislative mandate to continue and to strengthen State coastal management. The statutory standards and policies contained in the Act, and the shared management responsibilities they are to guide, will encourage wise use of State coastal resources.

STATUTORY DEADLINES

APPLYING TO COASTAL MANAGEMENT PROGRAM DEVELOPMENT

<u>DATE</u>	<u>STATUTORY SECTION</u>	<u>REQUIREMENTS</u>
12/77	46.35.040	Alaska Coastal Policy Council adoption of guidelines and standards for use by coastal resource districts and State agencies, after public hearings.
12/77	46.35.120	Commissioner of Department of Community and Regional Affairs, after public hearings, may consolidate two or more regional educational attendance areas into single coastal resource areas, according to statutory criteria.
1/78	44.19.893	Earliest date for State legislative approval of portions of the coastal management program. Alaska Coastal Policy Council must submit to the legislature portions of the program approved by the Council not later than the 10th day of each regular session.
6/78	44.19.891	End of term for public members of the Alaska Coastal Policy Council in the regions of northwest Alaska, southwest Alaska, Upper Cook Inlet, and Prince William Sound. Governor may reappoint any of the members, or appoint new members.
1/20/79	Section 6	Administrative Regulation Review Committee recommendation with respect to annulment of State administrative regulations detrimental to the Alaska Coastal Management Program.
6/79	44.19.891	End of term for public members of the Alaska Coastal Policy Council in regions of Bering Straits, Kodiak-Aleutians, Lower Cook Inlet, northern Southeast Alaska and southern Southeast Alaska. Governor may reappoint any of the members, or appoint new members.
12/79	46.35.050	All coastal resource district plans completed and submitted to Alaska Coastal Policy Council for approval, except programs in subsequently organized coastal resource service areas, which may be subject to a later deadline.
3/80	46.35.070	Alaska Coastal Policy Council decision on approval of district coastal management programs required by this time, with possible exception noted above.
6/80	44.19.891	End of term for public members of the Alaska Coastal Policy Council in regions of northwest Alaska, southwest Alaska, Upper Cook Inlet, and Prince William Sound. Governor may reappoint any of the members, or appoint new members.

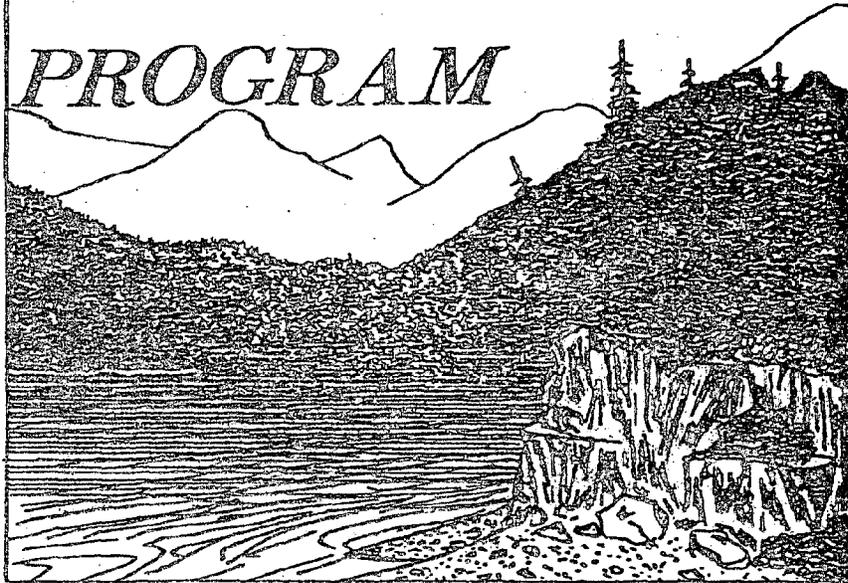
APPENDIX 'C'

INITIAL PUBLIC INFORMATION MEETING

75 large posters were displayed in public places and commercial establishments in addition to newspaper display ads, radio announcements and a tv appearance.

JUNEAU'S

COASTAL MANAGEMENT PROGRAM



*WHAT IS COASTAL MANAGEMENT?
..... how will it affect YOU and YOUR
FAMILY ???????*

*The League of Women Voters & The City
& Borough cordially invite you to a
public information meeting at the
SWITZER VILLAGE COMMUNITY HALL
TUESDAY SEPTEMBER 13 @ 8:00 P.M.
SLIDE SHOW, MAP DISPLAYS, REFRESHMENTS
..... and much more
Your concerns are our concerns: you can have a definite voice
in the development of this important program. LET'S HEAR
THAT VOICE!!!*

A N I N V I T A T I O N *

to the Civic Organizations of Juneau, Alaska

September 2, 1977

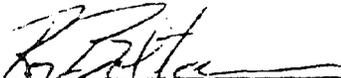
The City and Borough of Juneau has embarked on the first phase of a coastal management program. This planning effort is designed to inventory and analyze the many resources of Juneau's coastal area, and to develop the goals and objectives for the program so that a good balance of development and conservation can be achieved.

To be successful, such a program must truly reflect the needs and desires of the people of Juneau. A public participation effort is being initiated to assure that Juneauites will have the opportunity to remain informed about coastal planning, and to provide their ideas and concerns to the development of the policies and standards that the program will generate. We believe that active local citizens, armed with solid information and personal familiarity with the values of the community, can produce a balanced management program that will equitably meet the requirements of all interests in Juneau and be consistent with the broader State and national concerns.

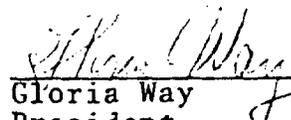
The initial public information meeting is co-sponsored by the League of Women Voters and the City and Borough of Juneau and is scheduled for September 13, 1977 at 8:00 p.m. at the Switzer Village Community Hall. The meeting will include maps, slide show, graphic displays, questions and answers about coastal management, refreshments, and much more.

We hope that your organization will take an active interest in the development of this important program and will be represented at the September 13 meeting.

Sincerely,



Hon Bolton
Assistant Planning Director
City and Borough of Juneau



Gloria Way
President
League of Women Voters

Coastal Zone Meeting Slated For Tonight

Juneauites wishing to get in on the ground floor of what likely will be a lengthy and complicated planning process should plan on attending tonight's first local Coastal Zone Management workshop.

The public meeting is scheduled to start at 8 p.m. tonight at the Switzer Village Mobilehome Recreation Center.

The session will be conducted by Ron Bolton, assistant planning director and head of the city-borough's coastal zone planning effort. He will be assisted by Robert Pavitt, an outside consultant hired to help the city assembly develop a coastal land-use planning study for the area from Salmon Creek north past Berner's Bay.

Tonight's session is slated to concentrate on a detailed explanation of all known data about local coastal zone areas, an explanation of the planning process and the reasons for coastal zone management. The workshop, coming over a month before a local state workshop on the topic, will give Juneauites their best over view of the issue since passage of a coastal zone management act by state lawmakers this past spring.

Juneau is one of the first communities in the state to launch a coastal zone planning process. The basic findings of the Juneau study, planned to be intergrated into a statewide coastal plan, is scheduled to be finished by next June.

9/13/77

You are cordially invited to a
PUBLIC INFORMATION MEETING
of the
JUNEAU COASTAL MANAGEMENT PROGRAM
MAPS, SLIDE SHOW, GRAPHIC DISPLAYS, REFRESHMENTS...

and a good chance to hear and be heard about the development and conservation of Juneau's coastline.

Co-sponsored by the
League of Women Voters and the City & Borough
of Juneau

To be held at

**SWITZER VILLAGE
COMMUNITY
HALL**

**TUESDAY SEPTEMBER 13,
8:00 P.M.**

9/8, 9/9, 9/12, 9/13.

S.E. Alaska Empire

WELCOME to the initial public information meeting of the Juneau Coastal Management Program.

Coastal management is an extension of the City and Borough's comprehensive planning program, with particular emphasis on the resources of the coastal area. The purpose of the program is to attain a balanced use and conservation of Juneau's coast that will allow the community to develop and prosper while maintaining the quality of the scenic, recreational and other resources that are so much a part of living in Juneau.

Juneau's coastal management program is the first local program funded by the Alaska Department of Community and Regional Affairs, using funds provided by the national Coastal Zone Management Program of the U.S. Department of Commerce.

The City and Borough has retained the Juneau consulting firm of R. W. Pavitt and Associates to assist in the development of the program. Associated with Bob Pavitt in this project are Frank Homan and Eric McDowell (Homan-McDowell Associates) regarding transportation and economic considerations; Dan Bishop on hydrologic matters; George Davidson and Bill Gute regarding public facilities and marine engineering considerations. This consulting team has a combined total of over 75 years of professional experience in Alaska; and the fact that all of the members are long-time Juneau residents adds the dimension of personal, as well as professional interest in the beneficial use, development and conservation of our coastal area.

The Juneau Coastal Management Program is presently in its first phase, which consists basically of inventorying and analyzing the resources of the coastal area, and setting out the goals and objectives that the program will attempt to achieve.

We feel that this is the perfect time to come before you with information about the coastal management program . . . BEFORE policies and standards are established (or even considered), so that the people of the community can voice their ideas, concerns and suggestions as to what should and should not happen in Juneau's coastal area.

The purpose of this initial public meeting is to present to you an overview of the work that is underway in Phase I of the program; and to discuss with you your gripes, hopes, concerns and suggestions as to the directions the program should take. We would also be grateful for your ideas as to how the citizens of the community can most effectively assist in the development of the program, so that future public meetings can be even more productive.

This evening's meeting will be divided into two parts. The first part is informational...a brief presentation on the coastal planning process; a slide presentation of Juneau's coast, and an explanation of the maps and graphic displays. The second part (following a break for refreshments and display-viewing) will be a "rap session", which we hope will bring forth some of your concerns and suggestions regarding the development of the coastal program. For those who prefer not to speak out at this kind of meeting (and for those who prefer to express themselves in writing), we have included in this packet a blank base map of the study area. If you have an area that you think merits particular consideration, please feel free to circle it, scratch any notes or ideas you may want on the map, and turn it in so that we might have the benefit of your thinking.

Those of you who are boat owners know how hard it is to find moorage facilities in the Juneau area. We all can observe the increasing demands being made on the limited waterfront lands at Auke Bay, for example and we each have our own impressions and reactions to the various changes that are occurring in other areas of Juneau's coastline.

Whatever your thoughts are about these or other matters regarding our coastal area, please speak out, or jot them down on the map or note paper provided in this packet.

Those who "signed in" this evening will be placed on the mailing list of the Alaska Coastal Management Program's monthly publication ALASKA CURRENT-LY; and will be provided the proceedings of this meeting as well as notification of upcoming meetings on the Juneau Coastal Management Program

*

A G E N D A

Our Moderator this evening is Merle Bottge of the League of Women Voters

I.

1. Moderator . . . Welcome, introductions.
2. Bob Pavitt . . . Introduction to the Juneau Coastal Management Program
3. Slide Presentation . . . "Juneau's Coast"
4. Bob Pavitt . . . Explanation of maps and graphic displays

REFRESHMENT BREAK

(COFFEE, TEA, GOODIES...AND DISPLAY-VIEWING)

II.

1. Moderator . . . Introduction of "resource persons" in attendance; opens up meeting to questions, comments, gripes, discussion, criticism, suggestions...and whatever (hopefully non-violent) debate may come naturally.
2. When we all run down . . . ADJOURN.

GOOD NIGHT, AND THANKS FOR COMING !!

NOTES . . . Your comments, thoughts and suggestions for the program.

Zoning Concerns Coastal Planners

Questions concerning the effect of a proposed coastal zone management plan on present zoning classifications in the city-borough led the topics discussed during a preliminary workshop on coastal planning held Tuesday.

Over 50 residents were on hand Tuesday night to hear an explanation of how coastal zone planning will be conducted locally and what likely will result from the effort, scheduled to take a year to finish.

A number of residents asked whether the coastal zone planning effort will eventually supersede the city's present zoning classifications. Juneauite Richard Block, for one, asked what permanent residents can expect land classifications to have if they can be changed at the urging of a state authority, the state's Coastal Zone Policy Council appointed by Gov. Jay Hammond late last month.

Other residents worried over whether state control of coastal areas will limit local options for land-use management.

Kay Diebels, chairwoman of the city-borough Planning and Zoning Commission, said while it was not clear, she envisioned the city's planning department modifying present zoning regulations to correspond to the potential coastal zone plan. She said the city will consider it as a revised comprehensive zoning plan for the borough.

Bob Pavitt, head of R.W. Pavitt and Associates, a local consulting firm hired by the city-borough to help with development of its coastal plan, said the state council would only be interested in passing on major coastal projects involved in an area, leaving to the local borough authority most developments.

Mark Stevens, a state planner

involved in coastal zone planning, confirmed Pavitt's view. "State guidelines will primarily be interested in the processes boroughs take to make decisions. The trust of the state council will be to set broad policy, not make local decisions," Stevens said.

Pavitt explained the city is completing an inventory of coastal resources throughout the borough, but especially in the area from Salmon Creek to Berner's Bay. After an inventory of all the unique land features is done, Pavitt said, efforts will be made to make decisions on future land uses such as for development, residential and industrial, and recreation uses.

Pavitt said before any such decisions can be made the state will have to be forced into issuing guidelines and making some decisions regarding land use. He said, for example, before a rational land-use plan for Juneau can be made the state will have to decide what use it plans to make of the nearly 13,000 acres of state mental health lands it controls, many on Douglas Island south of Douglas.

Pavitt said the Forest Service, which controls 79 per cent of all land in the borough, also will have to reach some decisions on local land management, management decisions underway through the service's Torzass land planning process.

Juneau is the first town in Alaska to start on a land-management plan mandated by the coastal zone law passed by lawmakers last spring.

SOUTHEAST ALASKA EMPIRE

September 15, 1977

MEMORANDUM

THE CITY AND BOROUGH OF JUNEAU

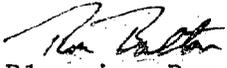
CAPITAL OF ALASKA

155 SOUTH SEWARD ST. JUNEAU, ALASKA 99801

TO: All Persons Attending

DATE: October 3, 1977

FILE NO.

FROM: 
Planning Department

SUBJECT: Public Information Meeting
on Coastal Management Program

On behalf of the City and Borough of Juneau and the League of Women Voters, thank you for your attendance at the initial public information meeting of the Juneau Coastal Management Program.

We felt the turnout of over 60 persons was excellent for a general information meeting of this type, and certainly indicative of citizen interest and concern over the wise use and management of the special land and resource values in our coastal setting. The many ideas, questions, and comments were most constructive and helpful to the staff. They have been summarized and furnished to the Planning Commission and Borough Assembly for their background information. A copy of the summary is enclosed.

In the next phase of this work (which will be sometime around the first of the year), we will be establishing a citizen advisory group to work with the Planning Department in developing the overall management plan. Hopefully, the persons attending our initial meeting will constitute the nucleus of this group. We will be contacting everyone who signed in at the meeting in addition to advertising the meeting by newspaper and radio.

Again, we appreciate your interest and look forward to working with you in the future. If, in the meantime, you have questions on any aspect of this program, please feel free to drop by the Planning Office or call (Ron Bolton, 586-3300, ext. 35).

Enclosure

RB:lt

PLANNING DEPARTMENT SUMMARY
COMMENTS & QUESTIONS - INITIAL PUBLIC INFORMATION MEETING
JUNEAU COASTAL MANAGEMENT PROGRAM

1. Broaden the planning area to include entire City and Borough of Juneau.
2. How will the coastal management plan affect current zoning?
3. Once the plan is developed, it should be permanent so it can be relied on for many years.
4. Will State Coastal Management policies allow Juneau's coastal management policies as much latitude as presently exists?
5. There are more spawning streams than shown on the Fish & Wildlife Resources map. Two streams at Lena Beach are not on map.
6. Will public access to beaches be improved. Will new structures blocking public access to beaches be prohibited?
7. Will ownership of waterfront property be of state concern to insure public access to beaches (like Oregon's coastline program)?
8. Coastal management planning in other areas, such as southern California, has come too late. Similar development pressures exist in Juneau. While developing our plan we must look ahead and visualize what we want Juneau to look like in the future.
9. Will conflicts and confrontations between development and conservation interests be improved with the coastal management plan or will compromise continue as before?
10. Its hard to foresee future problems. We should focus on immediate problems.
11. Are there any new boat launching facilities currently being considered?
12. What is the ownership of the tidelands?
13. The plan should incorporate green belt zoning with areas limited to open space uses and reduced tax rates.
14. There should be no further development or improvements at the Auke Bay ferry terminal.
15. Is a floating breakwater being considered at Auke Bay?
16. Is the Draft Parks and Recreation Plan (1970) being utilized in the development of the plan? The original plan dealt with the entire Borough while the new Parks and Recreation System Plan (1977) by the ORB organization is not as comprehensive.
17. Community service facilities must be accommodated in plan.
18. What are the assumptions of the population projections being used in the preparation of the plan?

19. Materials for public should be thoroughly prepared in advance before presenting it to public.
20. Any materials for public distribution should be previewed by a group of lay people to insure material is clear and understandable.
21. How will state and federal agencies plans concerning Juneau's coast interact with or affect the Juneau coastal management plan?
22. An advisory committee would be helpful.
23. What is the time frame for the plan?
24. It is important to examine land in terms of growth - what can the land support in addition to what use is best for the land.
25. There should be a column series in the newspaper on coastal management planning to generate continued public involvement.
26. A computer model might be useful to analyze environmental impacts caused by population growth.
27. Use people in attendance as core group or "advisory committee".
28. There should be a special dock area in Juneau for commercial fishermen where they can store and repair equipment.
29. How specific will the coastal management plan be?
30. If a rush development occurs before the plan is in effect, how will it be dealt with?

The foregoing was abstracted from notes taken at the meeting by League of Women Voters, planning staff members and the consultant.

In addition, 10 letters were received with helpful comments concerning the public participation program, growth policy, population density, specific development practices, mass transit, and the need for additional conservation and recreation areas.

APPENDIX 'D'

INVENTORY OF ANIMAL LIFE

Freshwater Lakes & Streams

Invertebrates -

Bacteria
Flagellates
Ciliates
Rotifers
Flatworms
Aquatic worms
Crustaceans

Dragonfly larvae
Stonefly larvae
Mayfly larvae
Water beetles
Caddisfly larvae
Midge larvae
Mosquito larvae
Snails
Clams

Fish -

Cutthroat trout
Rainbow/steelhead trout
Pink salmon
Chum salmon
Silver salmon
King salmon
Dolly Varden char
Sculpins
Brook trout
Red Salmon
Mammals -
Water shrew
Beaver
Northern bog lemming
Tundra vole
Muskrat
Mink
River otter

Birds

Common Loon
Red-throated Loon
Whistling Swan
Trumpeter Swan
Canada Goose
White-fronted Goose
Snow Goose
Mallard
Gadwall
Pintail
Green-winged Teal
Blue-winged Teal
American Widgeon

Shoveler
Ring-necked Duck
Common Goldeneye
Barrow's Goldeneye
Bufflehead
Harlequin Duck
Hooded Merganser
Common Merganser
Red-breasted Merganser
Bald Eagle
Marsh Hawk
Osprey
Sandhill Crane
Semipalmated Plover
Killdeer
Black-bellied Plover
Ruddy Turnstone
Great Blue Heron
Spotted Sandpiper
Solitary Sandpiper
Greater Yellowlegs
Lesser Yellowlegs
Common Snipe
Pectoral Sandpiper
Dunlin
Long-billed Dowitcher
Mew Gull
Bonaparte's Gull
Arctic Tern
Belted Kingfisher
Red-breasted Sapsucker
Traill's Flycatcher
Violet-Green Swallow
Tree Swallow
Dipper
Warbling Vireo
Orange-crowned Warbler
Yellow Warbler
Northern Waterthrush
Black-capped Warbler
Savannah Sparrow
Slate-colored Junco
Oregon Junco
Tree Sparrow
Fox Sparrow
Lincoln's Sparrow
Song Sparrow

The Marine Environment

Invertebrates -

Bacteria
Sponges
Protozoa

Jellyfish
Sea anemones

Marine worms
Arrowworms
Comb jellies
Shrimps
Dungeness crab
King crab
Tanner crab
Other crabs
Barnacles
Other crustaceans

Butter clams
Other clams
Weathervane scallop
Snails
Chitons
Sea stars
Brittle stars
Sea urchins
Sea cucumbers
Tunicates

Fish -
Walleye pollock
Pacific cod
Sablefish
Pacific pomfret
Pacific herring
Sockeye (red) salmon
Coho (silver) salmon
Chinook (king) salmon
Chum (dog) salmon
Pink (humpback) salmon
Steelhead trout
Black rockfish
Pacific Ocean perch
Eulachon
Sculpins
Halibut
Other flatfishes
Salmon shark

Mammals -
Steller sea lion
Pacific harbor seal
Black right whale
Gray whale
Sei whale
Blue whale
Fin whale
Right whale dolphin
Humpback whale
Common pilot whale
Killer whale
Harbor porpoise
Dall porpoise
Sea otter

Birds

Common Loon
Yellow-billed Loon
Arctic Loon
Red-throated Loon
Red-necked Grebe
Horned Grebe
Western Grebe
Fulmar
Double-crested Cormorant
Pelagic Cormorant
Great Blue Heron
Whistling Swan
Trumpeter Swan
Canada Goose
Cackling Goose
Black Brant
Emperor Goose
White-fronted Goose
Snow Goose
Mallard
Pintail
American Widgeon
Ring-necked Duck
Canvasback
Greater Scaup
Lesser Scaup
Common Goldeneye
Barrow's Goldeneye
Bufflehead
Oldsquaw
Harlequin Duck
King Eider
White-winged Scoter
Surf Scoter
Common Scoter
Hooded Merganser
Common Merganser
Red-breasted Merganser
Bald Eagle
Osprey
Surfbird
Wandering Tattler
Rock Sandpiper
Sharp-tailed Sandpiper
Sanderling
Red Phalarope
Northern Phalarope
Glaucous-winged Gull
Herring Gull
Thayer's Gull
Mew Gull
Bonaparte's Gull
Black-legged Kittiwake
Arctic Tern
Common Murre
Pigeon Guillemot
Marbled Murrelet
Kittlitz' Murrelet
Ancient Murrelet
Rhinoceros Auklet

Grass Sedge Meadows and Wetlands

Invertebrates -

Flatworms
Roundworms
Insects
Spiders & mites

Mammals -

Masked shrew
Northern water shrew
Little brown bat
Brown bear
Black bear
Short-tailed weasel
Mink
Coyote
Gray wolf
Meadow vole
Northern vole
Sitka black-tailed deer
Moose
Red fox
River Otter

Birds

Great Blue Heron
Whistling Swan
Trumpeter Swan
Canada Goose
Cackling Goose
Black Brant
White-fronted Goose
Snow Goose
Mallard
Gadwall
Pintail
Green-winged Teal
Blue-winged Teal
American Widgeon
Shoveler
Ring-necked Duck
Greater Scaup
Lesser Scaup
Bufflehead
Goshawk
Sharp-shinned Hawk
Bald Eagle
Marsh Hawk
Osprey
Pidgeon Hawk
Sparrow Hawk

Sandhill Crane
Sora
Black Oystercatcher
Semipalmated Plover
Killdeer
American Golden Plover
Black-bellied Plover
Surfbird
Ruddy Turnstone
Black Turnstone
Common Snipe
Whimbrel
Spotted Sandpiper
Solitary Sandpiper
Wandering Tattler
Greater Yellowlegs
Lesser Yellowlegs
Rock Sandpiper
Sharp-tailed Sandpiper
Pectoral Sandpiper
Baird's Sandpiper
Least Sandpiper
Dunlin
Short-billed Dowitcher
Long-billed Dowitcher
Stilt Sandpiper
Semipalmated Sandpiper
Western Sandpiper
Hudsonian Godwit
Sanderling
Red Phalarope
Northern Phalarope
Glaucous-winged Gull
Herring Gull
Thayer's Gull
Bonaparte's Gull
Snowy Owl
Hawk Owl
Pygmy Owl
Short-eared Owl
Vaux' Swift
Belted Kingfisher
Horned Lark
Violet-Green Swallow
Tree Swallow
Bank Swallow
Barn Swallow
Common Raven
Northwestern Crow
American Robin
Swainson's Thrush
Mountain Bluebird
Water Pipit
Mew Gull
Arctic Tern

Myrtle Warbler
Red-winged Blackbird
Rusty Blackbird
Gray-Crowned Rosy Finch
Pine Siskin
Savannah Sparrow
Golden-crowned Sparrow
Lapland Longspur
Smith's Longspur
Snow Bunting

Muskeg Areas

Mammals -

Masked Shrew
Little brown bat
Northern bog lemming
Wolf
Black bear
Brown bear
Ermine
Wolverine
Sitka black-tailed deer
Mink
River Otter

Birds-

Greater Yellowlegs
Northern 3-toed Woodpecker
Northern Shrike
Myrtle Warbler
Pine Grosbeak
Pine Siskin
Oregon Junco
Lincoln's Sparrow

Invertebrates -

Flatworms
Roundworms
Insects
Spiders and mites
Snails

Coastal Spruce/Hemlock Forest Areas

True Forest Mammals -

Masked Shrew
Dusky Shrew
Little brown bat
Red squirrel
Northern Flying Squirrel
Deer Mouse
Red-backed vole
Long-tailed vole
Porcupine
Gray Wolf
Black Bear
Brown Bear
Pine Marten
Ermine

Wolverine
Lynx
Sitka black-tailed deer
Mountain Goat

Invertebrates -

Flatworms
Roundworms
Insects
Spiders & mites
Snails & slugs

Birds -

Goshawk
Sharp-shinned Hawk
Red-tailed Hawk
Bald Eagle
Osprey
Peregrine Falcon
Blue Grouse
Spruce Grouse
Willow Ptarmigan
Marbled Murrelet
Band-tailed Pigeon
Great Horned Owl
Great Gray Owl
Rufous Hummingbird
Hairy Woodpecker
Downy Woodpecker
Hammond's Flycatcher
Western Flycatcher
Steller's Jay
Common Raven
Chestnut-backed Chickadee
Red-breasted Nuthatch
Brown Creeper
Winter Wren
Varied Thrush
Hermit Thrush
Golden-crowned Kinglet
Ruby-crowned Kinglet
Townsend's Warbler
Black-capped Warbler
Pine Grosbeak
Common Redpoll
Pine Siskin
Red Crossbill
White-winged Crossbill

Alpine Tundra Areas

Invertebrates -

Flatworms
Roundworms
Insects
Spiders & mites

Mammals -

Hoary Marmot

Northern bog lemming
Long-tailed vole
Northern vole
Gray Wolf
Red Fox
Black Bear
Brown Bear
Ermine
Wolverine
Sitka black-tailed deer
Mountain Goat

Birds -
Goshawk
Sharp-shinned Hawk
Golden Eagle
Gyr Falcon
Peregrine Falcon
Pigeon Hawk
Blue Grouse
Willow Ptarmigan
Rock Ptarmigan
White-tailed Ptarmigan
Kittitz' Murrelet
Black Swift
Rufous Hummingbird
Calliope Hummingbird
Horned Lark
Common Raven
American Robin
Wheatear
Water Pipit
Gray-crowned Rosy Finch
Oregon Junco
Golden-crowned Sparrow
Snow Bunting

