SELDOVIA
Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

CITY OF SELDOVIA
COMPREHENSIVE PLAN
MARCH, 1980

Prepared For

CITY OF SELDOVIA AND
KENAI PENINSULA BOROUGH

By

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The preparation of this Comprehensive Plan was financed in part by funds from the Office of Coastal Management, National Oceanic and Atmospheric Administration, U.S. Department of Commerce, administered by the Division of Community Planning, Department of Community and Regional Affairs. Matching funds and local administration were provided by Kenai Peninsula Borough.

Introduced by: Mayor, at request of Planning Commission
Date: Mar. 4, 1980
Hearing: April 1, 1980
Vote: 80 Yes, 6 No
Action: Enacted

KENAI PENINSULA BOROUGH

ORDINANCE 80-18

ADOPTING A COMPREHENSIVE PLAN FOR THE CITY OF SELDOVIA AS A PORTION OF THE KENAI PENINSULA BOROUGH COMPREHENSIVE PLAN.

WHEREAS, the Borough Planning Commission is required to prepare and recommend to the assembly a comprehensive plan for all areas encompassed by the Borough; and

WHEREAS, the Borough Planning Commission is required by statute to review and update the Borough comprehensive plan every two years; and

WHEREAS, the City of Seldovia has formed a comprehensive plan steering committee which has recommended, after public hearing, adoption of a comprehensive plan for that area of the Borough within the boundaries of the City of Seldovia; and

WHEREAS, the Seldovia City Council has reviewed the proposed comprehensive plan and recommended that the proposed Seldovia comprehensive plan be adopted by the Borough Assembly and approved by the City Council; and

WHEREAS, the Borough Planning Commission, after public hearing at its regular meeting of March 17, 1980, has recommended that the proposed Seldovia comprehensive plan as amended be adopted by the assembly;

NOW THEREFORE, BE IT ENACTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH:

Section 1. That the assembly adopts the "Seldovia Comprehensive Plan", 1980, prepared by Pacific Rim Planners, Inc. as the official Borough comprehensive plan for that

portion of the Borough within the boundaries of the City of Seldovia, the amended form approved by the Borough Planning Commission at its regular meeting of March 18, 1980.

Section 2. That the comprehensive plan adopted by this ordinance shall be known as "Seldovia Comprehensive Plan-Pacific Rim Planners, Inc.-1980" and each copy of the Plan shall be annotated on its cover to include the following legend:

"Adopted by the Assembly of the Kenai Peninsula Borough April 1, 1980, pursuant to Ordinance 80-18".

Section 3. That this ordinance takes effect immediately upon its enactment.

ENACTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH ON THIS 1st DAY OF April, 1980.

JoAnn Elson, Assembly President

ATTEST:

Frances Bygmer
Borough Clerk

RESOLUTION #80-6

A RESOLUTION OF THE COUNCIL OF THE CITY OF SELDOVIA APPROVING AND ADOPTING THE COMPREHENSIVE PLAN FOR THE CITY OF SELDOVIA.

WHEREAS, a Comprehensive Plan has been prepared for the City of Seldovia by the Pacific Rim Planners, Inc. and

WHEREAS, the Comprehensive Plan Steering Committee and the Pacific Rim Planners have heed numerous workshop sessions, public meetings and have obtained suggestions and comments from the citizens of Seldovia, and

WHEREAS, the Steering Committee have recommended approval of the Draft Comprehensive Plan with certain modifications,

NOW, THEREFORE, BE IT RESOLVED by the Council of the City of Seldovia that:

Section 1: The Seldovia Draft Comprehensive Plan prepared by Pacific Rim Planners and modified by the attached list of Amendments and Corrections is hereby approved and adopted as the Comprehensive Plan of the City of Seldovia.

Section 2: This plan is hereby recommended to the Kenai Peninsula Borough for adoption as the official Borough Comprehensive Plan within the Seldovia planning area.

PASSED AND APPROVED this 13th day of February 1980

APPROVED:

Darlene Crawford

Darlene Crawford
Mayor

ATTEST:

Elaine M. Giles

Elaine M. Giles
Clerk-Treasurer

ACKNOWLEDGEMENTS

City of Seldovia

City Council
- John Crawford
- Henry Gain
- Claire Glotfelty
- Betty Hamlin
- Billi Jo Anne Kaho
- Fred Newmeyer
- Cheryl Reynolds
- Chris Wheeler
- Gerald Willard

City Staff
- Darlene Crawford, Mayor
- Elaine M. Giles, City Clerk
- Crystal Kashevarof, Secretary

Seldovia Comprehensive Plan Steering Committee
- Darlene Crawford, Chairperson
- Don Caswell
- John Crawford
- Fred H. Elvsaas
- Henry Gain
- Jon Johnson
- Judi Johnson
- Billi Jo Anne Kaho
- Sharon Overman
- Cheryl Reynolds
- David C. Smith
- David West
- Chris Wheeler
- Gerald Willard

Seldovia Advisory Planning And Zoning Commission
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- Rod Hilts
- Sharon Overman
- Michelle Raymond
- Alan Smith
- Linda Williams

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Chapter 1
Summary

Introduction

For more than 100 years, Seldovia has been a unique part of Alaska. Like most communities, Seldovia has faced its share of good fortunes and adversity. Unlike many communities, however, Seldovia has succeeded in its efforts to achieve and maintain the best aspects of small town life. These qualities include stability; extensive involvement by a majority, rather than a minority of residents; a relaxed pace of life; diversity of life styles; mutual respect and concern for fellow citizens; and a pleasing environment. These qualities are a direct result of planned, concerted efforts by residents to create a superior quality of life for present and future Seldovians.

The comprehensive plan represents the culmination of over a year's efforts by community leaders and other concerned citizens who served on a steering committee to guide the development of this plan. This summary document briefly touches on each of the elements of the plan and highlights some of the implementation measures and actions to be taken. The plan is intended to serve as the basis for continuing efforts to guide Seldovia's future. By working together, city officials, citizens and public and private organizations can see to the realization of many community objectives.

Issues, Goals and Objectives

At the outset of the comprehensive planning project, a steering committee comprised of interested citizens was appointed by Mayor Crawford to guide and direct the development of the plan. Working with a professional planning consultant, the Committee identified the problems and issues facing Seldovia, translated these into goals and formulated more specific, measurable objectives to achieve the goals. The goals and objectives served to direct the preparation of the plan by identifying areas of need which were addressed by the study itself. Each of the goals address a specific element, issues, goals and objectives, along with implementing policies and actions, are listed in each of the elements of the comprehensive plan.

Population and Economy

Population and economic forecasts are a critical ingredient in a comprehensive plan, for they serve as the basis for predicting other areas addressed by the plan. For example, residential building site needs are based on new population growth expected. Likewise, needs in other ares can be related to these projections. However, the reliability of these estimates can be greatly influenced by outside, unknown or seemingly unrelated factors. Other factors may be the result of community decisions which have yet to be made (for example, a decision to expand the boat harbor).

Due to the many uncertainties which could affect Seldovia's population and economy, three separate projections or scenarios (low, intermediate, high) were developed based upon possible combinations of local and regional events. The scenarios represent a broad range of possible outcomes; which projection is closest to the actual outcome will depend on events beyond Seldovia's control as well as decisions which Seldovia can make. The possible combinations are shown in Figure 3-4 on page 3-12 of the full report.

Overall population projections are illustrated in Figure E-1. Under the low scenario, employment is projected to increase by only 27 jobs by the year 2000; population was projected to increase by 42 persons during the same period. The basic assumption in this scenario is that Seldovia would not participate in OCS-related economic activity.

The intermediate scenario assumes that the City would receive some OCS activity and other economic growth, hence that employment and population would increase by 186 jobs and 412 residents over the next two decades.

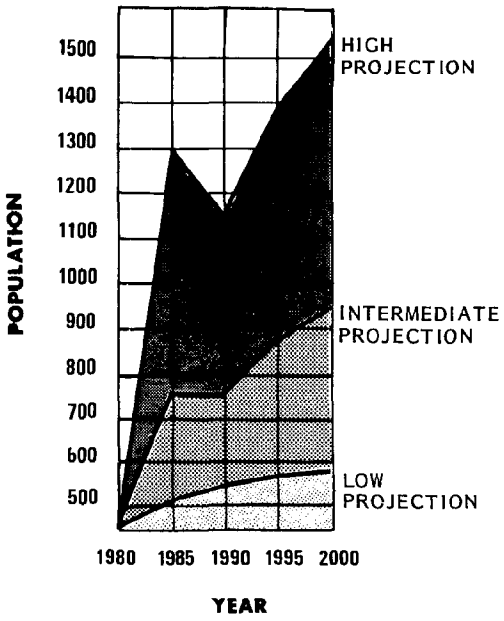
The high scenario reflects a heavy impact by OCS activities in Seldovia and rapid growth in fisheries, tourism and forest products employment. Both population and employment would more than double between 1980 and 2000 to 1,517 residents and 453 year-round full time jobs. The projections do not reflect a steady increase during the next twenty years, but suggest periods of slow and rapid increases and in some cases declines.

Each of the elements of the comprehensive plan are based upon an appropriate scenario (in most cases, the intermediate scenario was used) and tailored to meet the community's requirements as Seldovia moves toward achievement of its desired future state.

For further explanation of the methods used to derive the population and economic projections, please refer to Chapter 3, page 3-1 of the comprehensive plan.

FIGURE E-1

Population Projections Planning Area



Housing

Housing is one of the most basic of human needs. Seldovia is endowed with a fairly large number of well-built, well maintained homes when compared with other Alaskan communities of similar size. However, many Seldovians have difficulty securing adequate housing at an affordable price. This situation could worsen in the future as OCS-related or other population growth catalysts are introduced to the area. This section of the plan reviews Seldovia's existing housing stock in terms of number and condition, and projects the number and type of additional new units needed in the future. Various public and private housing assistance programs were reviewed as to their appropriateness to the Seldovia situation.

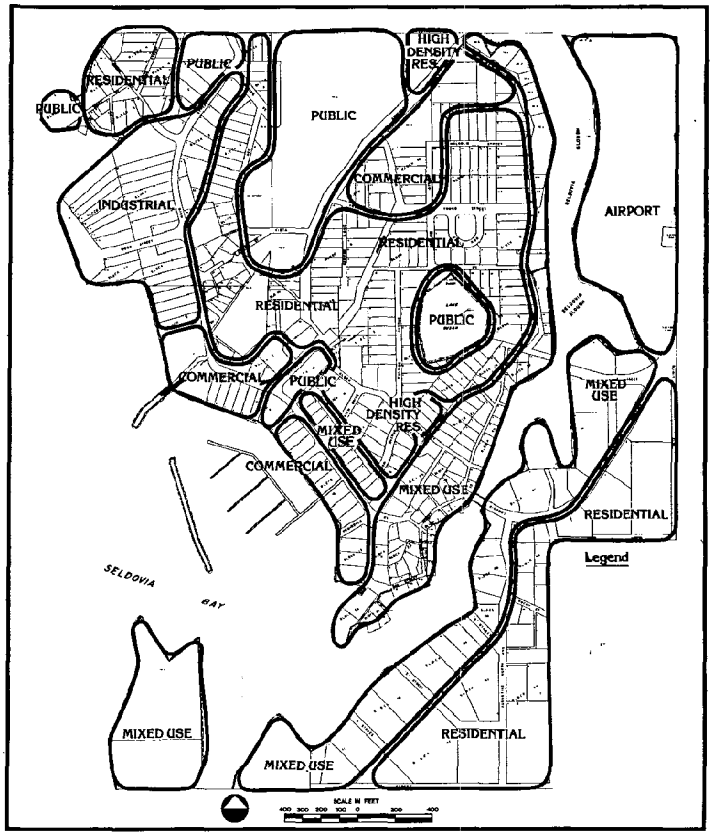
Actions which the City will take to ease the housing situation include the establishment of a housing land banking program to reserve sites for subsidized or other year-round housing needs and to explore methods the City can take to make more residential land available to residents. The City will work with public and private lenders to increase access to and knowledge of housing finance opportunities, and will strive to gauge its capital improvements program to serve the greatest number of developable building sites at the least possible cost utilizing state and federal assistance. The City will also attempt to provide additional mobile home housing opportunities and to encourage the improvement of existing mobile home park facilities. For a complete discussion of housing in Seldovia, please refer to Chapter 4, page 4-1 of the comprehensive plan.

Land Use

The future use of land in and around Seldovia will modify the City's character and could possibly conflict with existing uses. Since developable land within the City's boundaries is at a premium (due to natural conditions) it is likely that a large proportion of Seldovia's future growth may occur outside of existing city boundaries. Much of the new growth will require city services; consequently, it is important for Seldovia to decide how outlying areas are going to develop and where various uses or activities will occur.

During the formulation of this plan, existing land uses were studied and opinions of the residents were received. Projections were made of future land needs based on various growth scenarios to determine the amount of additional land which will be required for residential, commercial, industrial and other uses. Guiding the formation of the land use plan was the recently adopted zoning ordinance. The land use map, Figure 5-8, is a general guide as to the community's intent regarding future land use. Future proposals for development should be evaluated as to their consistency with the land use plan and with the zoning ordinance.

The actions to be taken in regard to land use include the modification of the ASHA Zoning Contract (controlling uses in the redevelopment area) to be consistent with the adopted Seldovia Zoning Ordinance and to modify the Residential district and the Waterfront-Residential-Commercial district to exclude multi-family uses. Other actions pertain to commercial activities outside the existing commercial core and restricting development in the upper Fish Creek watershed. The City will also take action to create a voluntary open-space taxing district (which would include unbuildable lands) to preserve the natural elements and land forms in Seldovia. For a full discussion on land use, please see Chapter 5, page 5-1.



SELDOVIA Comprehensive Plan
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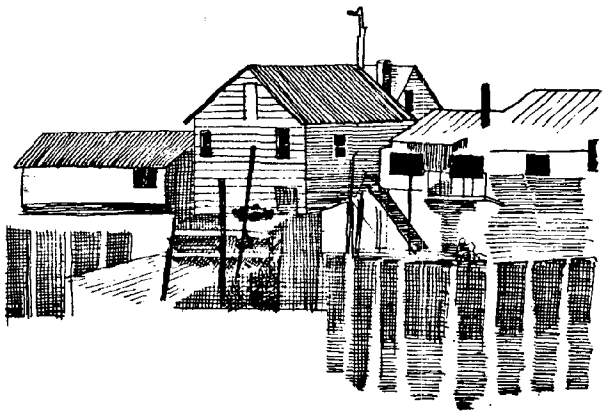
Figure 5-8

Planned Land Use



Municipal Watershed Management

Seldovia receives its water supply from the Upper Watershed and the Fish Creek watershed. The quality and quantity of these sources directly effects everyone in the community. Preservation and enhancement of the water quantity and quality is a major factor in the accomodation of future growth of the City. Due to proposed activities in the watersheds and recent problems with Seldovia's water supply, these watersheds were studied to determine the City's options in their utilization.

Both watersheds were studied as to their geology, soils, vegetation, water flow and ownership, as they pertain to accepted watershed management practices.

Actions pertaining to the management of the watersheds include the restriction of public access to both reservoirs, the installation of a water filtration and chlorination system and limiting traffic on the road paralleling Fish Creek during periods of high run-off. Other actions include the performance of engineering studies to determine the feasibility of improving the water collection and storage systems of the watersheds and to seek and secure additional water supplies. The major action concerning the water sources is to adopt a watershed management ordinance which spells out protection and enhancement measures for the two watersheds. For a complete discussion of watershed management see Chapter 6, page 6-1 of the comprehensive plan. A draft watershed management ordinance is found in Appendix B of the plan.

Social Services

The residents of Seldovia receive the benefits of several social services which have been developed by the efforts of concerned citizens over many years. These services include the health clinic, and educational and recreational opportunities. Each of these services were reviewed as to their existing development and function, and suggestions were made as to their continued improvement.

The actions to be taken pertaining to social services include the detailed study of the relationship between the City, the operation of the health clinic and health providers (physicians, nurses, etc.) in regards to services, income and expenses, the improvement of the community-based alcohol and drug treatment program and the support of a multi-purpose community and youth center. Other actions relate to continuing education and recreation lands acquisition. For a complete discussion on social services, please refer to Chapter 7, page 7-1 of the comprehensive plan.

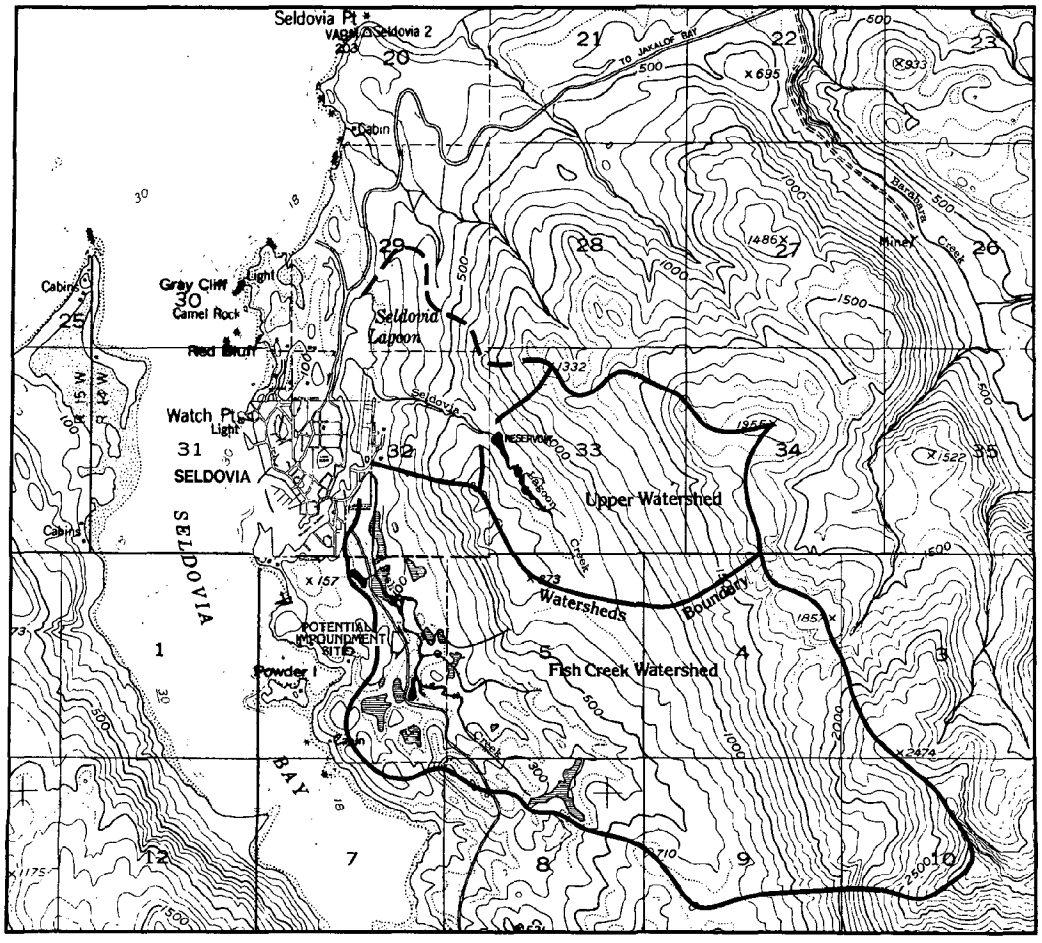


Figure 6-1

Seldovia Watersheds *

Creek

Includes those areas, in most cases adjacent to stream bed, which regularly receive high water streamflow or incidence of high (ground level) water table.

Wetland

Associated indirectly with streamflow.

* SEE "SELDOVIA WATERSHEDS" OTTEMOTO (SUPPLIED AS AN ADDENDUM TO THIS REPORT) FOR A MORE DETAILED REPRESENTATION OF FISH CREEK AS WELL AS DELINEATION OF THE POST DEVELOPMENT BUFFER.

SCALE IN FEET
0 500 1000 2000 3000

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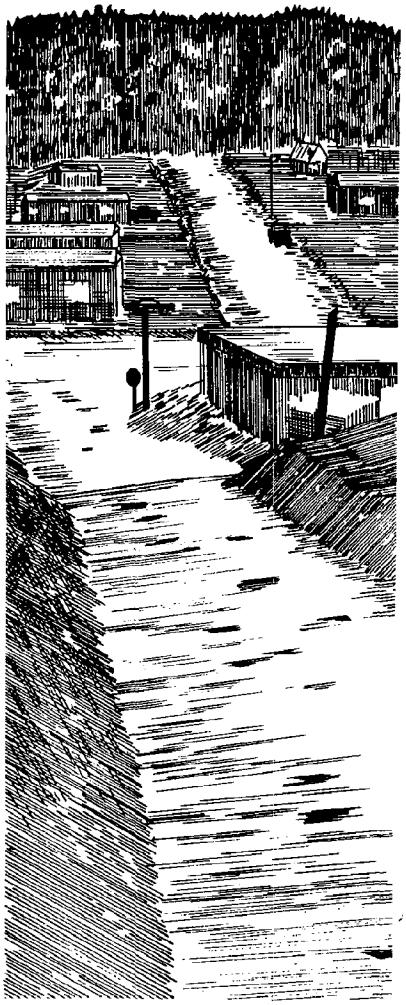
Municipal Utilities

The proper development of Seldovia's public utilities are critical not only to maintain the welfare of its residents but to attract new commercial and industrial development. The water, sewer, waste water treatment and solid waste disposal systems were analyzed as to their existing conditions, and the City's present and anticipated needs were evaluated, along with the opportunities available to the City for improvement of these systems.

Actions to be taken by the City include the expansion of the existing sewage collection system, the construction of a waste water treatment facility and the improvement of the city's water system (see watershed management, Chapter 6, page 6-1). Other actions deal with a solution to the disposal of solid waste and sludge from the sewage treatment plant.

Transportation

Seldovia relies on transportation services which are outside the City's direct control. Being isolated from the remainder of the Kenai Peninsula, the City is heavily dependent on private air and barge services and the state ferry system. The road system in and around Seldovia is frequently inadequate due to either informal construction practices, weather conditions, or both. Many of the concerns dealing with transportation (air, land and water) were studied and reviewed as to possible solutions and improvements on the part of the City, the Borough, the State and private individuals. The actions to be taken include the improvement of the ferry and air service, the upgrading of several streets and vacation of others, and the improvement and expansion of the boat harbor. For a complete discussion of transportation pertaining to Seldovia, please refer to Chapter 8, page 8-1 of the comprehensive plan.



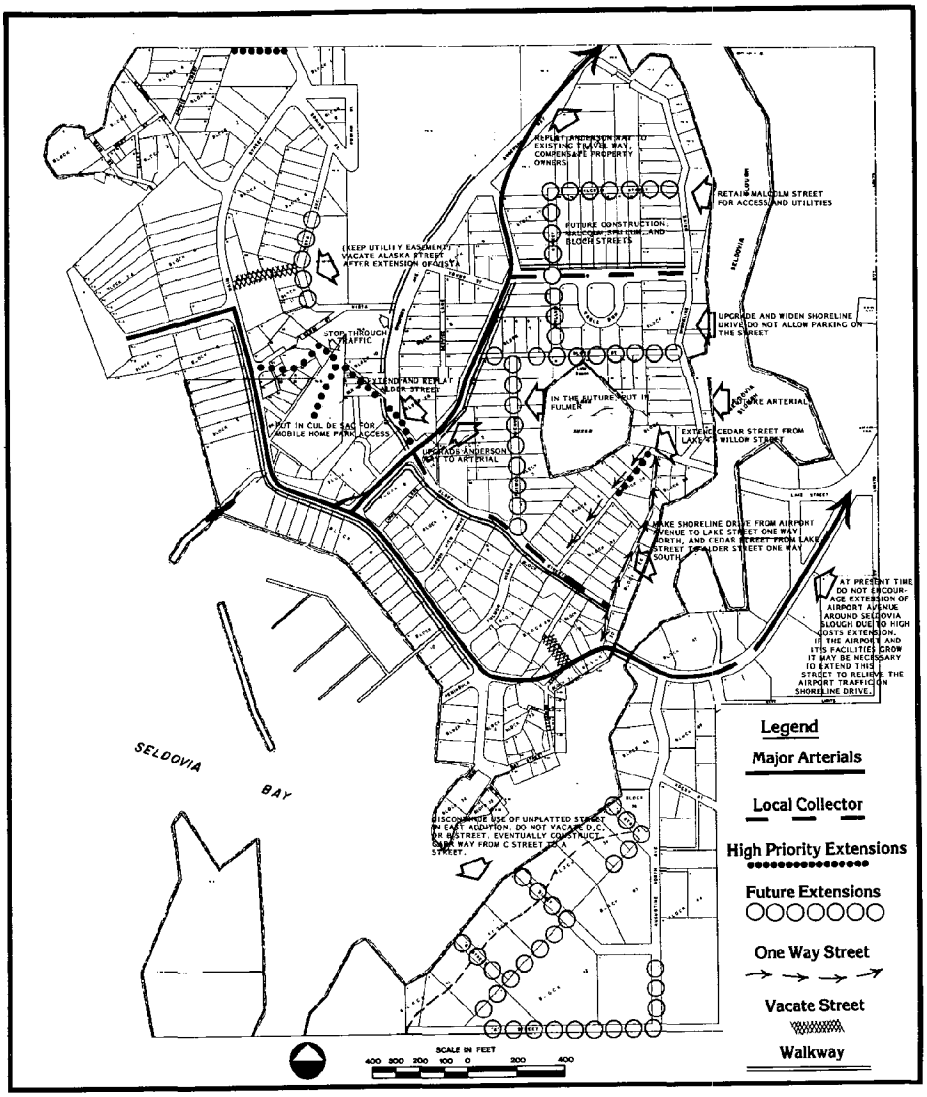


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Figure 8-4

Street and Walkway System Plan

Local Government

Seldovia's local government is faced with many demands for public services and facilities by the residents of the community. Three areas of local government activity were selected by the City Council and Steering Committee for detailed study. These areas are acquisition and management of financial resources, methods of extending public services to areas outside the city limits and alternative land reconveyances from the Seldovia Native Association, Inc. to the City under the terms of the Alaska Native Claims Settlement Act.

To arrive at solutions to the problem of obtaining and managing financial resources a fiscal analysis was completed for Seldovia. This analysis reviewed the revenues and expenditures of the City and the procedures used to allocate and monitor the transactions. Techniques in budget management were suggested. Actions to be taken by the City include periodic review of grant-funded programs, consideration of special assessment service districts and improved tax equity of all personal property. Rates and fees for city-operated enterprises will be based upon who receives its benefits and how much recipients can afford to pay. The City will also endeavor to implement its capital improvements program by providing regular allocations of dollars to a capital fund to use as a local match for Borough, State and Federal grants-in-aid.

Annexation of unincorporated lands to the City was also examined to identify methods by which annexation may be carried out and standards which are applied to annexation actions by the State Local Boundary Commission to deciding on proposed annexations. The report also identifies a simple method by which Seldovians can determine the potential impact of annexation on the city's finances, and presents a sample analysis of an example annexation action. Although simplifying assumptions must be made, the analysis method makes it possible to at least estimate the financial soundness of proposed annexations given different approaches to financing public services.

The reconveyance of not less than 1280 acres of Seldovia Native Association, Inc. (SNA) lands to the City was stipulated in the Alaska Native Claims Settlement Act. However, the location of these lands was not specified. Intended to provide for community expansion needs, the selection and transfer of these lands is complicated by several factors, not the least of which is the fact that few lands directly adjacent to the City were selected by SNA.

Community expansion needs of Seldovia were identified and translated into acres of land and land ownership maps were reviewed. From this analysis, three reconvenance alternatives were defined for consideration.

For a complete discussion of municipal finances, annexation and reconveyance of lands, please refer to Chapter 10 of the complete report.

Economic Development

Traditionally, Seldovia has relied upon the harvesting of natural resources to maintain its economic viability. The periodic rise and fall of the supply of and markets for these resources has in the past created both positive and negative impacts on the community. This lack of stability imposes financial and psychological hardships on many of the residents.

To broaden the economic opportunities in the area, general methods for stimulating economic development are discussed in the plan, along with specific actions which various individuals, organizations and the city government can implement. Several sectors of business and industry were reviewed, including fisheries, tourism, forest products, marine service and local services and trade.

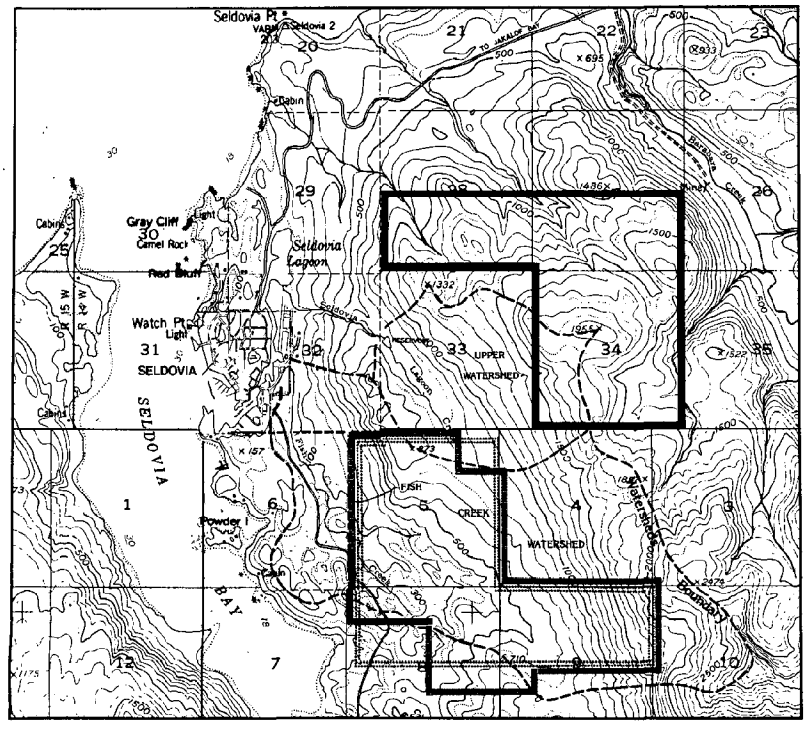


Figure 10-4

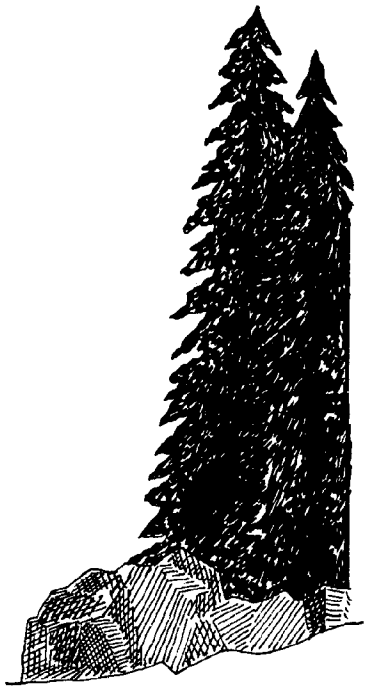
ANCSA 14(c)(3) Municipal Reconveyance Alternatives

ALT. 1 Seldovia Native Association Proposal

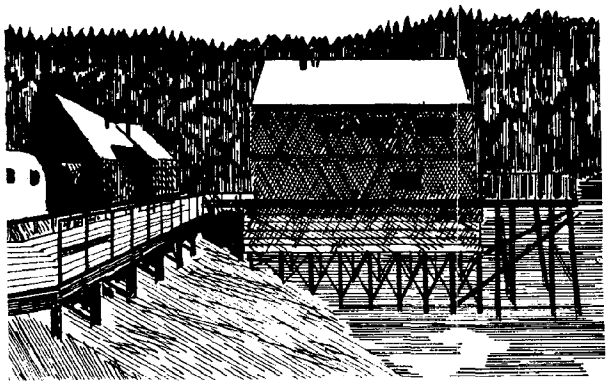
ALT. 2 Reconvey Watershed Lands

ALT. 3 Reconvey Developable Lands/Watershed

SELDOVIA Comprehensive Plan



Actions to be taken in improving the economic development climate of the area pertain to improvement of water transportation, public water supply and the sewage treatment system. Other actions deal with ensuring adequate waterfront for water dependent industry, establishing local aquaculture programs and encouraging local organizations to act as builder/developer, leasing facilities to small businesses lacking capital to build their own facilities. For a full discussion on economic development, please refer to Chapter 11, page 11-1 of the comprehensive plan.

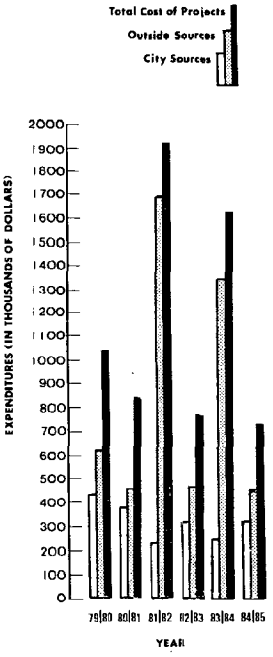


Capital Improvements Program

The culmination of the comprehensive plan lies in the capital improvements program (CIP). The CIP is basically a schedule of projects which the City plans to undertake during the next six years to achieve some of the goals set out in each of the comprehensive plan elements described above. It outlines each project, what it will cost, when it will occur and the methods of financing. The CIP provides a framework on which to base public policy and assures that projects will be executed in accordance with established priorities. It also ensures that projects are gauged to the community's ability to pay for them and enables city officials to coordinate projects in such a manner as to produce efficiencies in both time and money spent. Figure is a summary chart of the capital improvements program. For a complete discussion of the program, please refer to Chapter 12, page 12-1 of the comprehensive plan.

FIGURE E-2

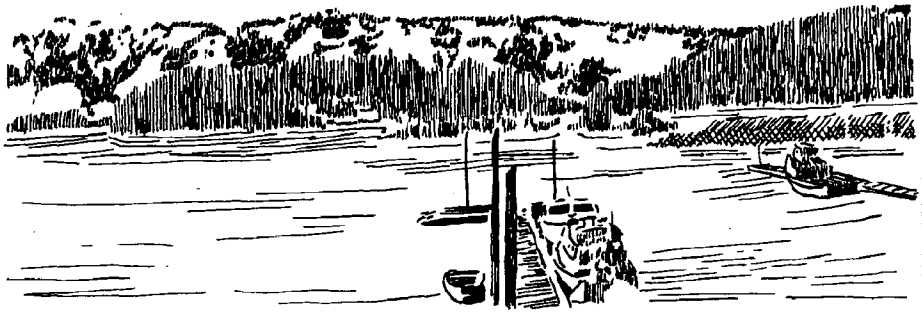
Summary of Proposed Capital Improvements



SUMMARY OF PROPOSED CAPITAL IMPROVEMENTS*

	1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	Six Year Total
			(Thousands of dollars)				
Planned Capital Improvements Total Cost	1055.7	835.2	1916.1	786.7	1608.3	722.8	6924.8
Sources Of Financing Amount To Be Raised From:							
Outside Sources	625.0	454.6	1698.5	475.3	1344.9	417.0	5015.3
Own (City) Sources	430.7	380.6	217.6	311.4	263.4	305.8	1909.5

* Project cost figures inflation adjusted (@9.2%/Yr.).



Part II
Background

Chapter 2
Introduction

For more than 100 years, Seldovia has been a unique part of Alaska. Like most communities, Seldovia has faced its share of good fortunes and adversity. Unlike many communities, however, Seldovia has succeeded in its efforts to achieve and maintain the best aspects of small town life. The qualities include stability, extensive involvement by a majority, rather than a minority of residents, a relaxed pace of life, diversity of lifestyles, mutual respect and concern for fellow residents and a pleasing physical environment.

These qualities did not develop or persist by accident. Rather, they are the direct result of concerted efforts by residents and interested outside groups to create a superior quality of life for present and future Seldovians. This plan serves these efforts.

During the late 1960's, several plans were prepared to serve as a guide to Seldovia's recovery from the effects of the 1964 Good Friday Earthquake. A decade later, expanded use of the region's natural resources poses an entirely new challenge to the community. Planning can again serve as a guide and catalyst for Seldovia's efforts to adapt to new challenges and continue to improve its quality of life.

This document represents the culmination of more than a year's efforts by community leaders and other concerned citizens who, working together with professional consultants, served on a Steering Committee to guide the development of this plan. From the outset, the Steering Committee identified specific issues of concern in the community. These issues were consolidated into the major elements of housing, land use, watershed management, social services and other aspects of community life and local government.

Each chapter in this report dealing with one of the issues begins with a discussion of the background of the problem under consideration, the existing conditions and projections of future conditions. Issues are then summarized and related to a planning goal and specific objectives which respond to the issues. (Appendix A contains a glossary of issues, goals, objectives and other terms used in this document.)

The chapters then discuss the authorities available to the City to achieve those objectives, and outline a number of possible solutions which the City might pursue. These possible solutions were presented to the Steering Committee during the development of this plan. The alternative which the Committee believed best suited the community's needs was developed further and presented as a planned solution.

The planned solution is a step-by-step approach for the City, the Borough, the Seldovia Native Association, Inc., and other parties to take to resolve the issues and achieve the goal. Organized around the objectives, the

planned solutions include policies which the City can adopt to serve as guidelines for future decision making.

Most importantly, these recommended solutions outline specific actions or procedures to follow to implement each policy. The watershed management element, for instance, includes a draft of a watershed protection ordinance to implement its policies, and identifies other agencies which can assist the City in implementation. The section dealing with municipal finance outlines a step-by-step procedure for developing a City budget and financial plan.

Rather than being a static document, this plan is intended to serve as the basis for continuing efforts to plan for Seldovia's future. As such, the document is updated as changes in conditions warrant. As individual pages are revised and approved by the City and Borough, old pages are replaced with amended pages noting the date and ordinance or resolution number approving the revision.

By working together, City officials, public and private leaders, other residents and outside organizations can see to the realization of many community objectives. This plan can help to direct and focus such efforts, and serve as a catalyst for the continued betterment of Seldovia.

Chapter 3
Population and Economic Projections

To be effective, comprehensive plans must be based upon careful, reasoned analyses of population and economic trends. Detailed projections are needed in order to tailor each element of the plan to needs and demands which the community is likely to face.

This chapter develops such an analysis of Seldovia's economy and population.* Past, present and future conditions are examined, and projections of future employment and population are developed. These are utilized in the different elements of the comprehensive plan found in succeeding chapters.

PLANNING AREA

As used in this report, the term "city limits" refers to the municipal boundaries of the City of Seldovia as of 1980, unless otherwise noted.

The term "Planning Area" refers to all areas likely to exert a significant direct or indirect impact on Seldovia. As such, the "Planning Area" includes the area within city limits plus present and potential municipal watersheds and potential residential and industrial development areas outside of city limits. Consequently, the planning area includes generally Seldovia Bay and the lands draining into it, plus the Barabara Creek Watershed (Figure 3-1).**

"Seldovia precinct" refers to the boundaries of the Seldovia Voting Precinct, which is used for censuses and determination of Seldovia's representation in the Borough Assembly.

The term "South Kachemak" refers to the southern arm of the lower Kenai Peninsula bordered by Kachemak Bay and the Gulf of Alaska.

BACKGROUND

Seldovia's population has varied considerably since its modern founding in the first half of the 19th century. During its history, Seldovia's fortunes have

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* Economic development is covered in Chapter 11.

** In many cases, planning area maps in this document focus on a particular part of the planning area in order to show a maximum of detail for the feature of interest.

risen and fallen on the success of its major enterprises. In the 19th century, sea otter hunting was a major activity. In the first half of this century, salmon fishing became prominent, with as many as four canneries operating in the community. In 1950, the population stood at 437. By the mid-1950's, however, salmon harvests had declined, and two of the salmon canneries closed, and the population began to decrease.

At about this time, however, king crab fishing became an important activity. The population began to grow again, reaching 460 persons in 1960, and an estimated 550 in 1964. In that year, however, the Good Friday Earthquake struck, sinking land in the area by 3.7 feet. Commercial and industrial buildings along the waterfront were hardest hit, and many closed. An urban renewal project rebuilt the waterfront, but only one of the original four canneries was rebuilt. Population dropped temporarily as some residents moved away in search of better employment opportunities (ASHA, 1969). By 1970, however, improving prosperity caused population to increase again to 437.

The 1969 comprehensive plan contained two sets of population projections. One assumed that Seldovia would not grow ("Continuation of Status Quo"), while the second ("Economic Development") predicted that the community would grow to 470 in 1975 if king crab and Tanner crab harvests increased, shrimp production began at the Wakefield plant, and tourism and/or timber expanded into major "basic" industries. Comparison with actual growth experienced by the community indicates that the short-term "economic development" projection has proved fairly accurate. In fact, Tanner crab harvesting and processing have become important, and shrimp processing recently began on a limited scale. Log harvesting also increased, and a sawmill at Jakolof Bay became an important employer.

Accordingly, the City's population grew, exceeding the projected 1975 population level. In 1978, despite recent population declines associated with closure of the Jakolof Bay sawmill, a special census recorded the City's population at 485 persons, with an additional 99 persons residing outside of city limits but within the Seldovia voting precinct (Kenai Peninsula Borough, 1979). The overall growth in the City's population during 1970 to 1978 averages 1.3 percent per year, which is a very moderate growth rate.

POPULATION CHARACTERISTICS

Seldovia can be characterized as a rural village in transition. Many residents have lived in Seldovia for many years. Community stability is reflected by the fact that the medium age of the city was nearly 29 years in 1970, compared to 28 years for the nation as a whole and 23 years for Alaska during the same year. Nearly one-third of the population were Native, and over 60 percent of all residents were males. Table 3-1 and Figure 3-2 summarize Seldovia's demographic characteristics for 1970 and 1978.

Since 1970, Seldovia's population characteristics changed considerably, despite little apparent change in total population. Most of the changes are quite similar to those experienced by larger, growing Alaskan communities. As

FIGURE 3-1
SELDOVIA AND VICINITY

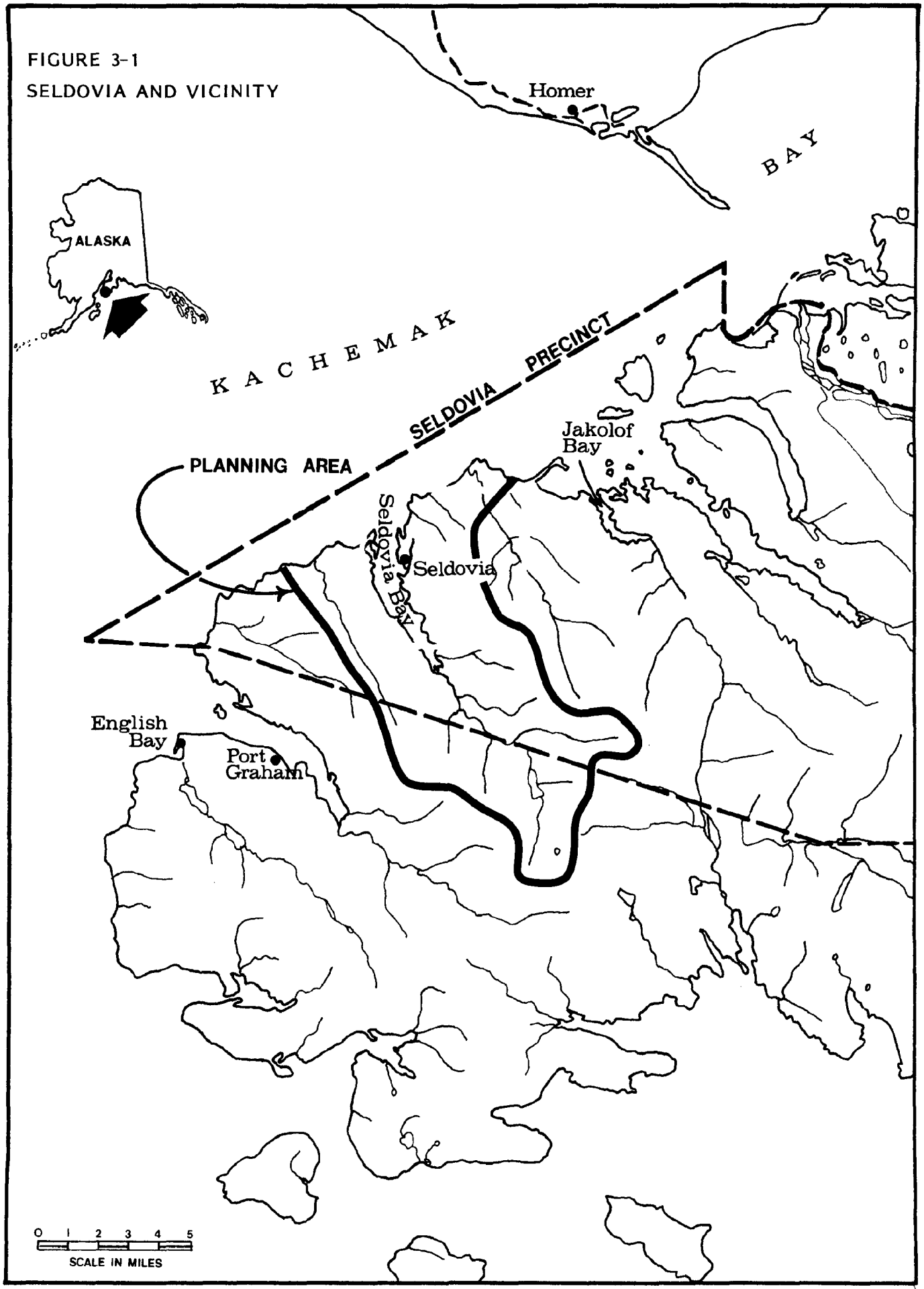
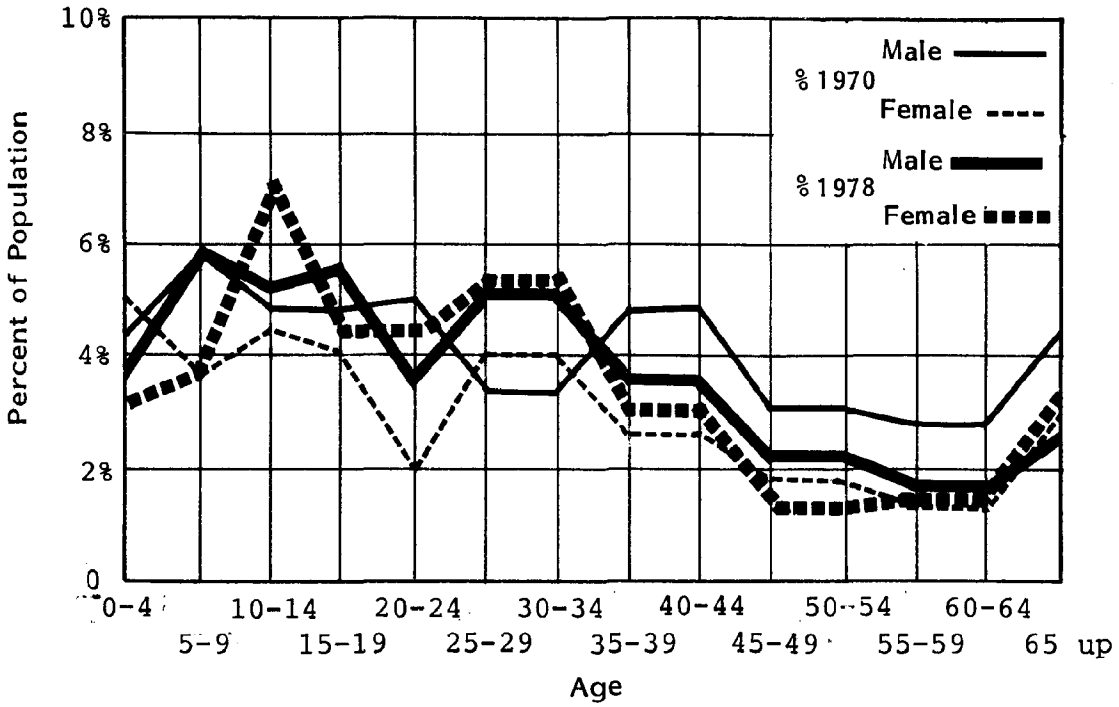


FIGURE 3-2
COMPARISON OF AGE & SEX OF RESIDENTS
SELDOVIA, ALASKA & UNITED STATES
1970 and 1978

City of Seldovia



Alaska and the United States

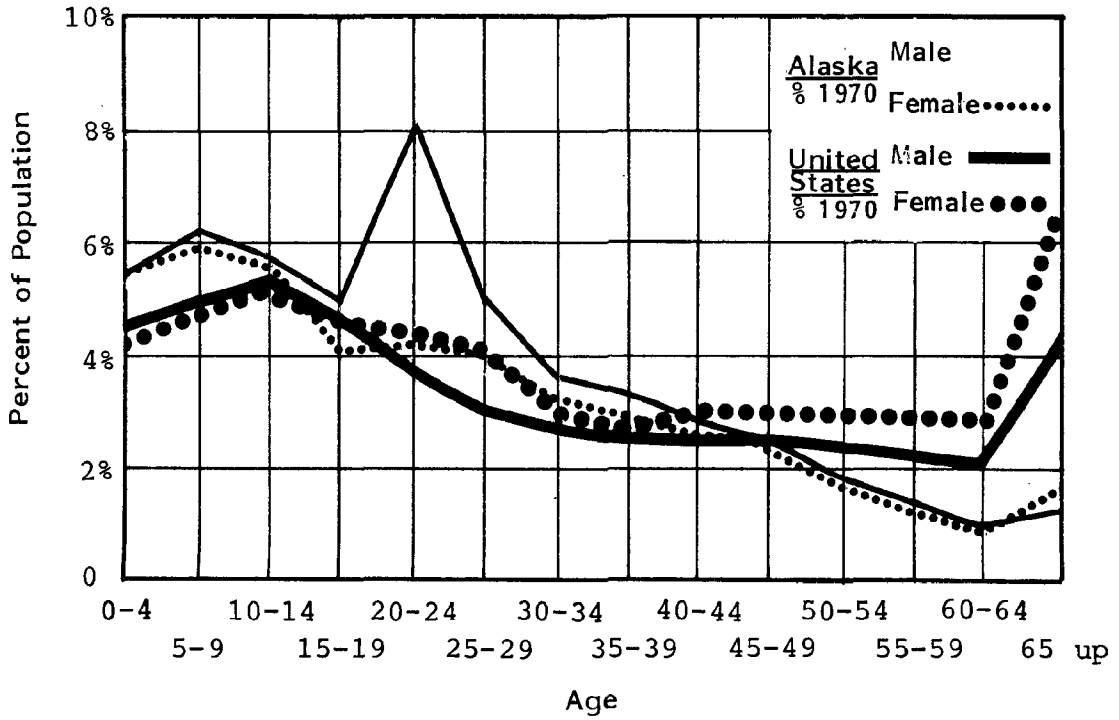


TABLE 3-1
SELECTED POPULATION CHARACTERISTICS
CITY OF SELDOVIA
1970 and 1978

	1970		1978	
	NO.	(PERCENT)	NO	(PERCENT)
Sex				
Male	264	(60.4)	253	(52.1)
Female	173	(39.6)	232	(47.8)
TOTAL	437	(100.0)	485	(100.0)
Race				
White	299	(68.4)	347	(71.5)
Native, other	138	(31.5)	138	(28.5)
TOTAL	437	(100.0)	485	(100.0)
Median Age				
Male	30.3 years		27.8 years	
Female	26.8 years		26.4 years	
Combined	28.9 years*		27.0 years	

* Weighted average of male and female medians.

Source: Alaska Department of Community and Regional Affairs, Kenai Peninsula Borough and Pacific Rim Planners, Inc.

measured by the 1978 Special Census, Native population has remained at 138 persons, while non-Natives increased by 48. As a result, the percent of population which is Native fell from 31.6 to 28.5 percent.

Median age fell significantly, from 28.9 to 27.0 years. This was apparently caused by in-migration of a significant number of young adults (ages 25 to 34 years). Although not falling in absolute size, the relative proportion of residents age 45 or more fell during the same period.

Another significant change is that the proportion of females in the population rose from less than 40 percent to nearly 48 percent of the population. The latter figure is more characteristic of larger Alaskan cities and the nation, and reflects the transition of Seldovia from rural to a more urban status.

ECONOMIC BASE

One useful method of analyzing a community's economy is to determine sources of revenue, sales or income for major employment activities. Such an examination, called an economic base analysis, may be used to determine how developed

TABLE 3-2
ECONOMIC BASE ANALYSIS
ESTIMATED AVERAGE ANNUAL EMPLOYMENT IN PLANNING AREA BY SOURCE OF REVENUE OR SALES
1979

Employment Category	Estimated Full Time Employment					Source Of Revenue, Sales Or Demand To Support Employment													
						Basic (Export) Employment)													
	1st	2nd	3rd	4th	Average For Year	State Gov't.		Federal Gov't.		English Bay Port Graham		Temp.Residents (visitors)		Other Organizations		Total Basic		Non-basic (Secondary)	
						(Percent)	(No.)	(Percent)	(No.)	(Percent)	(No.)	(Percent)	(No.)	(Percent)	(No.)	(Percent)	(No.)	(Percent)	(No.)
Agriculture, Forestry & Fishing	50	95	120	50	79	-	-	-	-	-	-	-	-	(100%)	79.0	(100%)	79.0	(0%)	0
Mining	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Contract Construction	0	5	11	7.5	6	(20%)	1.2	(20%)	1.2	(5%)	0.3	-	-	-	-	(45%)	2.7	(55%)	3.3
Manufacturing (Including Fish Processing)	51	47	49	47	48	-	-	-	-	-	-	-	-	(100%)	48.0	(100%)	48.9	-	-
Transportation, Communications & Public Utilities	5	5	5	5	5	(5%)	0.2	(5%)	0.2	(20%)	0.8	(10%)	0.4	(5%)	00.2	(45%)	1.8	(55%)	3.2
Wholesale And Retail Trade	24.5	24.5	24.5	24.5	24.5	(2%)	0.5	(3%)	0.7	(10%)	2.5	(10%)	2.5	(5%)	1.2	(30%)	7.3	(70%)	17.2
Finance, Insurance & Real Estate	3.5	2.5	4	3.5	3.5	-	-	-	-	-	-	(14%)	0.5	(33%)	2.9	(97%)	3.4	(3%)	0.2
Services	2	2	2	2	2	(10%)	0.2	(10%)	0.2	-	-	(20%)	0.2	(10%)	0.2	(50%)	1.0	(50%)	1.0
Government																			
Federal	2	2	2	2	2	-	-	-	-	-	-	-	-	-	-	-	-	(100%)	2.0
State	0	0	0	0	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Local (Includes School)	27	31	16	27	25	(6%)	1.5	(20%)	5.0	-	-	-	-	-	-	(26%)	6.5	(74%)	18.5
GRAND TOTALS	165	214	233.5	168.5	195	(2%)	3.6	(4%)	7.3	2%	3.6	(2%)	3.6	(67%)	131.5	(77%)	149.7	(23%)	45.4

Source: Pacific Rim Planners, Inc.

or mature the community's economy is relative to the economies of similar communities. This can be helpful in estimating how the economy may change as the community grows. The analysis is also useful in identifying major sources of support, and their relative importance, to Seldovia's economy.

To provide such an anlysis, a direct survey was conducted of representative employers and self-employed persons in Seldovia during the summer of 1979. This survey was used to compile the employment and economic base analysis shown in Table 3-2 and Figure 3-3.

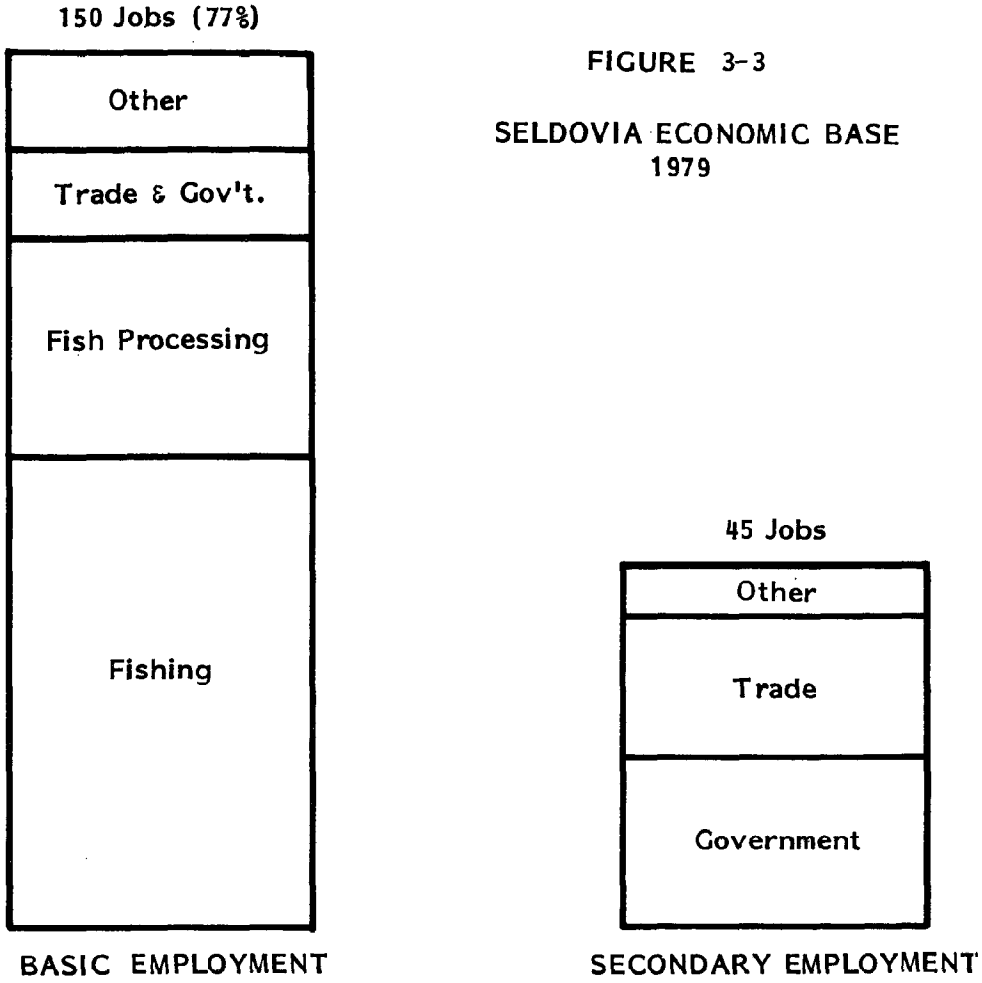


FIGURE 3-3

SELDOVIA ECONOMIC BASE
1979

Source: Pacific Rim Planners, Inc.

Table 3-2 is divided into two parts. The left side presents estimated 1979 full-time employment by calendar quarter and annual average for 11 major employment categories. The right side indicates sources of revenue, sales or income for each employment category. The sources indicate the degree to which

each category is dependent on local or non-local sources of revenue. Categories which depend on local sources of revenue, sales or demand are called "non basic" or "secondary" activities. Since secondary activities may be presumed to be dependent upon basic or export activities for their support, their ratio is often used to indicate how a change in a basic activity would affect total employment in the community (Tiebout, 1962).

A useful example of the manner in which activities are classified would be the government category. An annual average of 25 employees currently work for the City and Borough (school) in Seldovia. About three-quarters of the total employment can be attributed to local tax revenues or local demand; for example, the Post Office is supported by local demand, and hence is a secondary activity. Similarly, most of the employment at the Borough-operated Susan B. English School are paid out of property tax receipts which the Borough collects in Seldovia plus State and Federal per-student reimbursements; hence, most school employment can be considered as secondary or locally generated. Local government employment treated as basic includes only that percentage which cannot be attributed to local revenues or demands, such as special one-time economic or community development grants.

Based upon the analysis, several observations may be made concerning Seldovia's economy. The first is that Seldovia's employment shows a great deal of stability over the course of the year compared to many Alaskan communities. Of course, much of this is due to the fact that fishing, the major economic activity, continues throughout much of the year, and that many residents engage in two or more income-earning activities during the course of a year (for example, construction and fishing).

A second observation is that Seldovia has a relatively large number of secondary jobs (about 45) compared with other communities of similar size. The community's basic to secondary employment ratio of 1.00 to 0.30 (meaning that 3 1/3 basic jobs support roughly one secondary job) is usually found in somewhat larger communities of 1,000 or more population. It is likely that at least part of the reason for this relatively high state of economic development is that some residents have earned enough income in other pursuits (pipeline construction or fishing, for example), to enable them to establish a business. This does not imply, however, that Seldovia's economy cannot be developed further. A number of both basic and secondary employment opportunities can still be developed, as will be discussed in Chapter 11.

Third, the figures indicate that fishing and fishing-related employment are clearly the major source of employment in the study area. Fishing, fish processing and indirect (secondary) employment attributable to the two categories account for 85 percent, or more than four out of five, of all present jobs.

The columns labelled "Sources of Revenue, Sales or Demand to Support Employment" also indicate the importance of other economic activities. State government spending directly and indirectly accounts for slightly over two percent of total employment. Although small, State expenditures have been growing rapidly since the development of the Prudhoe Bay oil fields brought additional income to the

State. With rapid increases in world oil prices, moreover, future State revenues will probably allow continued rapid increases in State expenditures (Goldsmith, 1978). Hence, State expenditures are likely to account for an increasing portion of revenues in Seldovia's economy.

Federal expenditures are slightly larger, accounting directly and indirectly for nearly five percent of total employment. While federal expenditures in general are not growing as rapidly as are those of the State, special Federal programs (such as the Coastal Energy Impact Program) designed to alleviate problems of Outer Continental Shelf (OCS) oil development could become quite important if the Lower Cook Inlet oil fields are developed.

Surrounding communities of the South Kachemak Bay area, such as Jakolof Bay, English Bay and Port Graham, are also somewhat important, accounting directly and indirectly for slightly more than 2 percent of total employment. The primary employment categories affected are Transportation, Communications and Public Utilities, and Wholesale and Retail Trade. Temporary residents and visitors also account directly and indirectly for just over two percent of total employment. This category includes tourists, non-resident construction workers and other persons temporarily visiting Seldovia (including those on business). Finally, the category in Table 3-2 entitled "Other Organizations" are primarily U.S. and Japanese fish processors and trading companies who purchase Seldovia's fisheries products.

ECONOMIC PROJECTIONS

The major force which might affect Seldovia's economy would be development of the Lower Cook Inlet oil fields. Depending on the level of finds and the timing of development and siting of onshore service bases, up to 292 OCS-related employees might move to the planning area in the future. The intermediate range number would be 37 to 74 employees. OCS employees would, in turn, encourage other economic growth (in secondary employment) by purchasing local goods and services. Other employment growth might also be stimulated through growth in fisheries, tourism and wood products employment.

Possible changes in Seldovia's economy during the next two decades are depicted by constructing three possible outcomes, or scenarios. The scenarios (low, intermediate, high) were developed to indicate the range of potential outcomes. They demonstrate the effects of external events outside of the control of the community (such as the outcome of oil exploration in Lower Cook Inlet) as well as the effects of actions which the community may take (such as providing suitable accommodations for a developing bottomfish industry). Each scenario assumes a particular combination of external and community-influenced events. Important characteristics of each scenario are depicted in Figure 3-4. Detailed descriptions of the actions which Seldovia can take or influence may be found in Chapter 11.

Table 3-3 presents projected employment, and change in average annual employment, for the planning area between the years 1979 and 2000. Under the low scenario, planning area employment is projected to increase by only 27 jobs,

FIGURE 3-4

GROWTH SCENARIO ASSUMPTIONS

	LOW	INTERMEDIATE	HIGH
Oil & Gas Mining	Exploration peaks in 1979, terminates in 1980. No impact on Seldovia.	Moderate discoveries. Some construction & production workers reside in Seldovia, but no marine service bases located in Seldovia.	Large discoveries. Some construction & production workers reside in Seldovia.
Contract Construction	Stable through 1986, increasing at 2.3% per year thereafter.	Increases proportional to growth in Seldovia's basic employment.	Increases proportional to growth in Seldovia's basic employment.
Fishing	Fisherman income increases only through price increases of fisheries products. No appreciable rise in fisheries catch. Seldovia maintains share of fishing fleet.	Moderate increases in Seldovia and crab harvests due to management and enhancement efforts. Moderate scale entry into new fisheries (bottom-fish, clams, oysters, etc.) Seldovia maintains share of regional fishing fleet.	Significant increases in salmon harvests due to aquaculture. Large scale entry into new fisheries (bottom-fish, clams, oysters, etc.) Increased income to fishermen from crab and salmon price increases. Crab catch stable. Seldovia maintains share of fishing fleet.
Fish Processing	Stable at current levels. Seldovia maintains share of processing.	Increases proportional to increases in fishing employment. Seldovia maintains share of processing.	Increases proportional to increases in fishing employment. Seldovia maintains share of processing.
Federal Employment	Stable at current levels (no federal employment in Seldovia).	Small increases (proportional to Borough-wide increase of 1.2 percent per annual increase).	Moderate increases (proportional to Borough-wide increase of 2.3 percent per year).
State & Local Employment	1.5 percent annual increase.	2.5 percent annual increase.	3.4 percent annual increase.
Other Manufacturing-Logging & Wood Processing	Small scale logging by State and Native Corporations. Round log exports sales only.	Increased logging by State and Native Corporations. Some round log exports, no processing. Employment increases by 4.2 percent per year.	Increased logging by State and Native Corporations. Reconstruction of sawmill in Jakolof Bay. Employment increases by 4.9 percent per year.
Other Employment	Small increases due to tourism. Secondary employment increases proportional to basic employment increases	Moderate increases due to further development of tourism trade. Secondary employment increases proportional to basic employment increases.	Large increases in tourist trade. Secondary employment increases proportional to basic employment increases.
Probability Of Actual Outcome Exceeding Projection	95%	50%	5%
Probability Of Actual Outcome Less Than Projection	5%	50%	95¢

Source: Environmental Services Ltd. (1979) and Pacific Rim Planners, Inc.

TABLE 3-3
AVERAGE ANNUAL PLANNING AREA EMPLOYMENT BY SCENARIO
1979 and 2000

Employment Category	1979 (Est.)	LOW		INTERMEDIATE		HIGH	
		Total Yr.2000	Change 1979-2000	Total Yr.2000	Change 1979-2000	Total Yr.2000	Change 1979-2000
Agriculture, Forestry & Fishing	79	79	0	108	+29	147	+ 68
Mining	0	0	0	37	+37	145	+145
Contract Construction	6	8	+2	12	+ 6	14	+ 8
Manufacturing (including Fish Processing)	48	48	0	76	+28	101	+ 53
Other Manufacturing	0	3	+3	8	+ 8	11	+ 11
Transportation Communication & Public Utilities	5	7	+2	13	+ 8	20	+ 15
Wholesale & Retail Trade	24	34	+10	61	+37	109	+ 85
Finance, Insurance & Real Estate	4	6	+2	15	+11	28	+ 24
Services	2	3	+1	6	+ 4	11	+ 9
Government:							
State & Federal Gov't.	2	2	0	6	+ 4	17	+ 15
Local Government	25	32	+7	39	+14	45	+ 20
TOTAL EMPLOYMENT	195	222	+27	381	+186	648	+453
Average Annual Growth Rate			+ 0.6%		+ 3.2%		+ 5.9%

Source: Pacific Rim Planners, Inc.

for an average annual growth rate of 0.6 percent. The only employment categories with significant increases would be Wholesale & Retail Trade, and Local Government (the latter category includes school employment). Other employment categories, including fishing and fish processing, would grow little if at all over 1979 levels.

Under the intermediate scenario moderate scale OCS development, in addition to fishing and fish processing expansion, would stimulate increases in other sectors of Seldovia's economy, causing total employment to grow by an annual average rate of 3.2 percent per year (OCS workers and fishermen residing in Seldovia are included in planning area employment). OCS-related employment would actually be higher during the period 1982-1987, when construction of OCS drilling platforms and related facilities would occur. OCS-related employment would peak at 74 in 1987, and decline to 37 by 1991.

Under the high scenario, major development of the Lower Cook Inlet oil fields, nearby location of related onshore facilities, and major expansion and diversification of Seldovia-based fishing and fish processing activities would cause major growth in all categories of Seldovia's employment averaging 5.9 percent per year from 1979 to 2000. OCS-related employment would increase rapidly during the early 1980's, coinciding with construction of drilling platforms and related facilities, reaching a maximum of 292 Seldovia-based workers in 1983, and falling slowly to a production level of 145 jobs. Other employment growth would probably occur more evenly throughout the period.

FUTURE POPULATION

Tables 3-4, 3-5 and Figure 3-5 present preliminary population projections for the planning area for the year 2000. The projections are based on employment scenarios and projected labor force participation rates. For the sake of clarity, the projections are divided into direct OCS-related population (OCS workers and their families) and other residents for each of the three scenarios.

The low scenario projects continued growth, but at a 70 percent lower rate than the 1970-1978 growth rate. Under this scenario, no OCS-related households would reside in the planning area. Total population in the year 2000 would be 542.

The intermediate scenario would result in a more than doubling of the planning area's 1970-1978 growth rate of 1.4 percent, to an average of 3.1 percent per year. Population growth rates would be very high during the first half of the 1980's as oil fields are developed, and would drop to fairly moderate rates by the end of the 1980's. Total population in the year 2000 would be 913, nearly double estimated 1978 population.

If the high scenario were to occur, the population would increase dramatically during the first half of the 1980's, coinciding with OCS development. Following completion of development, population would decrease temporarily for the remainder of the decade, but during the 1990's would return to a growth rate about twice the 1970-1978 rates. Total population in the year 2000 would be 1517, or roughly three times the present population. This threefold increase translates to an average annual growth rate of 5.4 percent.

By comparison, recent population projections for southcentral Alaska estimate growth rates ranging from 2.8 to 5.0 percent, with an intermediate estimate

of 3.7 percent, for the same period (Scott, 1979). Hence, projected Seldovia growth rates represent a wider range, with an intermediate or mid-range estimate only slightly lower than the regional average.

TABLE 3-4
PROJECTED PLANNING AREA POPULATION GROWTH
BY SCENARIO
1979 to 2000

	LOW			INTERMEDIATE			HIGH		
	Non OCS-Related	OCS-Related	Total	Non OCS-Related	OCS-Related	Total	Non OCS-Related	OCS-Related	Total
1979	500	0	500	500	0	500	500	0	500
1980	505	0	505	525	16	541	576	35	611
1981	505	0	505	538	10	548	610	209	819
1982	506	0	506	562	45	607	635	249	884
1983	504	0	504	575	63	638	653	324	977
1984	507	0	507	592	66	658	660	514	1174
1985	508	0	508	612	74	686	727	493	1220
1986	505	0	505	632	122	754	769	516	1285
1987	506	0	506	642	148	790	786	468	1254
1988	506	0	506	650	100	750	798	360	1158
1989	507	0	507	659	94	753	814	326	1140
1990	512	0	512	669	86	755	855	300	1155
1991	510	0	510	686	80	766	883	290	1173
1992	515	0	515	708	74	782	925	290	1215
1993	520	0	520	722	74	796	956	290	1246
1994	522	0	522	739	74	813	991	290	1281
1995	527	0	527	754	74	828	1027	290	1317
1996	527	0	527	766	74	840	1064	290	1354
1997	532	0	532	786	74	860	1098	290	1388
1998	539	0	539	803	74	877	1142	290	1432
1999	539	0	539	817	74	891	1181	290	1471
2000		0	542	839	74	913	1227	290	1517

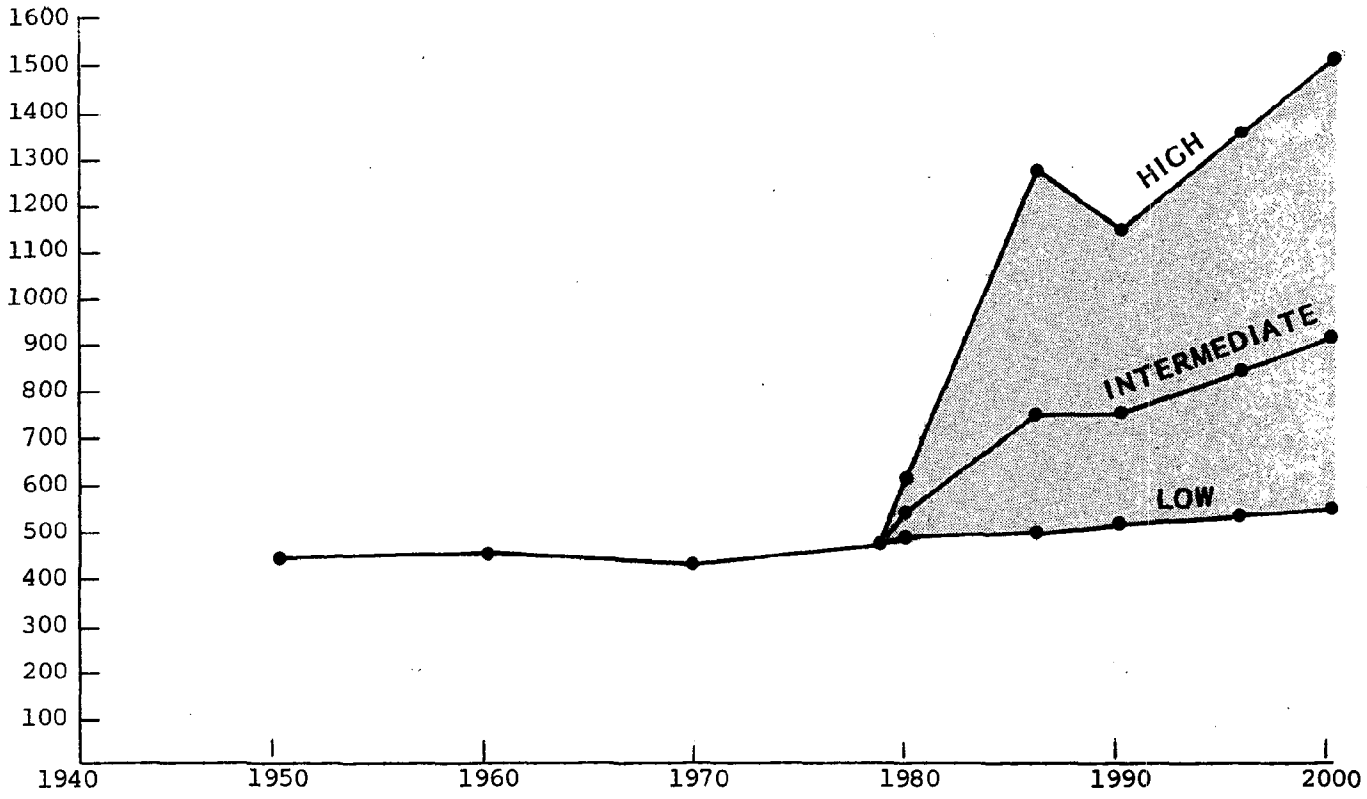
Source: Pacific Rim Planners, Inc. Excludes Seasonal Residents.

TABLE 3-5
COMPARISON OF POPULATION GROWTH RATES IN
PROJECTED PLANNING AREA POPULATION BY SCENARIO

PERIOD	LOW SCENARIO	INTERMEDIATE SCENARIO	HIGH SCENARIO
1979-1982	0.4%	5.7%	20.9%
1982-1985	0.1%	4.2%	11.3%
1985-1988	-0.1%	3.0%	-1.7%
1988-1991	0.3%	0.7%	0.4%
1991-1994	0.8%	2.0%	3.0%
1994-1997	0.6%	1.9%	2.7%
1997-2000	0.6%	2.0%	3.0%
Average Yearly Rate For Period	0.4%	2.9%	5.4%

Source: Pacific Rim Planners, Inc. Estimates based on Environmental Services, Ltd. (1979) and CH2M-Hill (1978). Excludes seasonal residents.

FIGURE 3-5
PRELIMINARY POPULATION PROJECTIONS
PLANNING AREA



Part III
Plan Elements

Chapter 4
Housing

Along with health and safety, the desire for adequate shelter is one of the most basic of human needs. Currently, many Seldovians have difficulty securing adequate housing at an affordable price. Some types of public and private community actions, however, may diminish or correct many of Seldovia's existing and potential housing problems.

Like many communities, a wide range of sizes, styles and conditions exist in Seldovia's housing stock. Indeed, the diversity of styles found is one of the community's greatest physical assets. The difficulty which residents experience attempting to obtain suitable housing, however, is also quite common given Alaskan prices. Further, OCS-related or other population growth, coupled with vacation home demand will likely continue to drive up the prices of many homes and homesites, and would make it even more difficult for many residents to obtain adequate shelter in the future. Yet there are many possible approaches available to the City which could either avert or substantially ease housing problems given the right applications. This chapter examines some of those possible actions, and presents a series of adopted approaches to achieving community housing goals and objectives.

BACKGROUND

Seldovia has been endowed with a fairly large number of well-built, well-maintained homes, compared with many other similarly sized communities in Alaska. Moreover, the relative prosperity of fishing enabled many families to improve or replace their homes during the last decade, reducing overcrowding and substandard conditions among Seldovia's housing stock.

Recently, the South Kachemak area has become increasingly popular as a summer or vacation home location for Anchorage area residents. Consequently, seasonal housing has become a rapidly growing component of the planning area's housing stock.

Table 4-1 describes trends in the number and types of housing units in the City's housing stock. Overall, the total number of units increased by more than 25 percent between 1970 and 1978, while the number of year-round units increased by 23 units or 15 percent. Vacancy rates in year-round units dropped by over half. As a result, the number of occupied year-round units increased by 34 units or 25 percent. Since population increased by only 11 percent during the same period, average household size (and presumably overcrowding) decreased correspondingly, from 3.3 to 2.9 persons per household.

Seasonal units registered the largest increase during 1970 - 1978. The number of seasonal units in the City increased from 3 to 20, or a nearly seven-fold increase.

TABLE 4-1
PLANNING AREA HOUSING TRENDS
1970 AND 1978

	April 1, 1970			July 1, 1978		
	City	Remainder of Planning Area	Total	City	Remainder of Planning Area	Total
Year-Round Units						
Occupied	132[1]	2	133	166	4	170
Vacant	21[1]	0	22	10	0	10
TOTAL	153	2	155	176	4	180
Seasonal Units	3[1]	2	5	20	4	24
TOTAL NO. OF UNITS	156[1]	4	160	196[2]	8	204

Sources: [1] Alaska Department of Community and Regional Affairs.
[2] Pacific Rim Planners, Inc. estimates based on Kenai Peninsula Borough figures.

Although no published figures are available, current estimates of housing outside of the City but within the planning area are 2 year-round units and 10 seasonal units.

A majority of the homes in Seldovia are owner occupied. This ratio has increased over the last decade, from 61 to about 70 percent, indicating continued recovery from the effects of the Good Friday Earthquake and the relative prosperity which many residents have achieved. The current rate of home ownership is about the same as other cities in the Borough and non-farm households nationwide.

Should Seldovia's economy remain healthy, it is likely that the ratio of home ownership will remain at or grow somewhat from current levels. Since some households will probably prefer to rent, however, some units will likely continue to be rentals.

The current home ownership levels are less than home ownership levels for oil industry employees currently living in the Borough. Consequently, if Seldovia experiences an influx of OCS-related households it is likely that the fraction of home ownership may rise.

Seldovia's housing has shown fairly stable proportions of single family, multiple family and mobile homes. From 1970 to 1977, single family homes have remained at about two-thirds of all housing. Multiple family and other housing types fell in share from 19 to 15 percent during the same period, while mobile homes doubled in number and increased in share from 14 to 18 percent of all units.

Recently, construction has begun on an 18 unit elderly housing project financed by the U.S. Department of Housing and Urban Development near Lake

Susan. While this will have a positive effect upon housing quality of Seldovia's elderly, few additional units will be made available, since six existing elderly housing units are scheduled for demolition upon completion of the project; further, several of the project's new residents will be from out of town.

By contrast, other urban areas of the Borough have larger, and more rapidly growing, percentages of mobile homes. The rate of growth in mobile homes is particularly noticeable in rapidly growing areas such as Homer. Other conventional housing has diminished in share to between 50 and 60 percent in these areas. The clear implication is that mobile housing is heavily utilized in rapidly growing areas. As such, it could become an even larger component of Seldovia's housing if OCS-related population growth occurs in Seldovia and City or Borough zoning and platting standards do not make mobile homes infeasible. (See Chapter 5 for discussion of zoning and platting standards).

Housing quality is somewhat more difficult to judge because of lack of consistent, comparable data. A city housing survey in March, 1978 estimated a substandardness rate of 30 percent among occupied nonseasonal housing, and 33 percent when vacant nonseasonal housing was included. Most substandard units were rated suitable for rehabilitation. It is possible, however, that the rate of substandardness was overestimated; all other indicators (income, home ownership, household size) indicate improvements in housing quality since 1970.

PROJECTED DEMANDS

If either the intermediate or high scenarios are achieved, housing demands will increase substantially over the next twenty years. By contrast, under the low scenario housing demands will be quite minimal.

Demand For Year-Round Housing

Table 4-2 describes the number of resident (year-round) households likely to be located in the planning area at yearly intervals through the year 2000. As the table indicates, the total number of year-round households is likely to increase as little as 8 and to as great at 226 percent during the next two decades. Under the intermediate scenario, the number of households would grow by 88 percent.

Projected production of housing units (Table 4-3) shows even greater variation, with totals ranging from 62 new year-round units in the low scenario to 518 units in the high scenario. Under the intermediate scenario, a projected 226 new year-round units will be produced.*

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* Housing production figures include allowances for vacancy and replacement or net conversion of existing housing stock. Both subsidized and non-subsidized housing is included, but seasonal units are not included.

TABLE 4-2
PROJECTED NUMBER OF RESIDENT (YEAR-ROUND) HOUSEHOLDS
IN PLANNING AREA BY SCENARIO
1979 - 2000

YEAR	SCENARIO		
	LOW	INTERMEDIATE	HIGH
1979	179	179	179
1980	180	196	224
1981	180	197	322
1982	181	223	351
1983	180	237	395
1984	181	244	493
1985	181	256	506
1986	180	287	533
1987	180	303	515
1988	181	282	515
1989	182	278	504
1990	183	282	505
1991	182	285	460
1992	184	290	475
1993	186	295	486
1994	186	301	499
1995	188	206	512
1996	188	311	525
1997	190	318	537
1998	193	324	553
1999	193	329	567
2000	194	337	583
Total Projected Change, 1979 to 2000.			
Number	+15	+158	+404
Percent	+ 8.4%	+ 88.3%	+225.7%

Note: Excludes Seasonal residents.

Source: Pacific Rim Planners, Inc. estimates.

TABLE 4-3
PROJECTED DEVELOPMENT OF YEAR-ROUND HOUSING UNITS
IN PLANNING AREA BY SCENARIO
1979 - 2000

YEAR	SCENARIO		
	LOW	INTERMEDIATE	HIGH
1979	20	20	20
1980	-	5	34
1981	-	-	102
1982	-	32	34
1983	-	16	48
1984	-	9	103
1985	-	14	19
1986	-	36	33
1987	2	20	-
1988	2	-	-
1989	3	-	-
1990	3	-	-
1991	2	-	-
1992	4	1	-
1993	4	8	-
1994	2	10	6
1995	4	8	18
1996	2	8	18
1997	4	10	18
1998	5	9	21
1999	2	8	21
2000	3	12	23
Total Number Of Units Likely	62	226	518

Note: Excludes seasonal units.

Source: Pacific Rim Planners, Inc.

As discussed earlier, mobile homes have tended to accomodate a large part of population growth in fast growing areas of the Borough during the past decade; their proportion was somewhat lower, but still growing, in slower growing areas of the Borough. Hence, mobile homes are projected to account for the largest fraction in the high growth scenario. Table 4-4 summarizes projected housing types for estimated new housing production under each scenario.

TABLE 4-4
PROJECTED NUMBER OF NEW YEAR-ROUND HOUSING UNITS
BY TYPE LIKELY TO BE DEVELOPED
IN PLANNING AREA BY SCENARIO
1979 - 2000

HOUSING TYPE	SCENARIO					
	LOW		INTERMEDIATE		HIGH	
	No.	(Percent)	No.	(Percent)	No.	(Percent)
Conventional Single Family	40	(66%)	124	(55%)	259	(50%)
Multiple Family	11	(17%)	34	(15%)	78	(15%)
Mobile Homes	11	(17%)	68	(30%)	181	(35%)
TOTAL NEW UNITS	62	(100%)	226	(100%)	518	(100%)

Note: Excludes seasonal units.

Source: Pacific Rim Planners, Inc.

Demand For Seasonal Housing

A separate, but nevertheless important, component of housing demand is that for seasonal units. In recent years, a small but significant portion of the planning area's growth in housing units has been in units which are only seasonally occupied. Most of the owners are Anchorage residents who spend part of or all their summers in Seldovia. The attractiveness of the south Kachemak Bay area, the likely continued growth of Anchorage and the increased availability of homes and building lots, makes it likely that seasonal housing will continue to grow in numbers and importance. There are currently an estimated 20 seasonal units in the planning area; projected growth is likely to be related to growth in population and real income of the Anchorage metropolitan area. Hence, seasonal units are projected to increase to 37 units in the low scenario, 42 units in the intermediate scenario and 50 units in the high scenario by the year 2000. Table 4-5 summarizes trends in seasonal housing.

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$ 4 049 NOGM %
$ 5 245 00 City of Seldovia comprehensive plan / 'c prepared for City of Seldovia and Kenai Peninsula Borough by Pacific Rim Planners, Inc. %
$ 6 260 Seattle, Wash. : 'b The Planners, 'c [1980] %
$ 7 300 263 p. in various pagings : 'b ill., maps (some folded) ; 'c 28 cm. %
$ 8 500 Cover title: Seldovia comprehensive plan. %
$ 9 500 Funded by the U.S. Office of Coastal Zone Management and the Kenai Peninsula Borough. %
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$ 11 504 Includes bibliography. %
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$ 15 710 1 Kenai Peninsula Borough (Alaska) %
$ 16 710 2 Pacific Rim Planners. %
$ 17 710 2 National Ocean Survey. 'b Office of Coastal Zone Management. %
$ 18 740 01 Seldovia comprehensive plan. %

TABLE 4-5
PROJECTED SEASONAL HOUSING IN PLANNING AREA
1979 - 2000

	LOW		INTERMEDIATE		HIGH	
	Number	Ann. Avg. Change (Percent)	Number	Ann. Avg. Change (Percent)	Number	Ann. Avg. Change (Percent)
1979	20	-	20	-	20	-
1985	23	1.5	23	1.5	26	3.0
1990	26	1.3	28	2.2	32	2.3
1995	31	1.9	33	1.8	39	2.2
2000	37	1.9	42	2.7	50	2.8

Note: Assumes growth proportional to population growth in Anchorage metropolitan area.

Source: Pacific Rim Planners, Inc., et. estimates.

ISSUES, GOALS AND OBJECTIVES

To date, six issues have been identified which bear on housing. These are:

(1) Lack of low cost rental housing for small families or transient workers.

(2) Increased ownership of area housing by non-residents (increased seasonal housing and speculation).

(3) Placement and appearance of mobile homes, and lack of mobile home parks.

(4) Quality and diversity of existing housing. Needs to be retained and improved.

(5) Lack of suitable and financeable lots for homes.

(6) Financing capital improvements costs of new housing.

Housing goals and objectives which respond to these issues include:

GOAL: Opportunities to obtain affordable, adequate quality housing, with a diversity of housing type, tenure and styles to choose from.

OBJECTIVES:

(1) Increase the number of low or moderate cost units available.

(2) Increase the porportion of families owning their own homes.

(3) Accomplish the upgrading of existing, and establishment of additional, mobile homes and mobile home parks. Assure compatibility with surroundings if located on single lots.

(4) Maintain and improve the quality of existing and future housing.

(5) Determine and implement best and most equitable way to finance public services.

(6) Increase number of useable building sites available.

(7) Control undesirable effects of seasonal housing and non-resident housing ownership.

POSSIBLE SOLUTIONS

For each of the objectives identified above, a number of possible approaches can be taken by the City and other public or private groups to reach desirable solutions. In some cases, several alternatives can be pursued at once, while in others, a choice must be made between the alternatives which are outlined. Planned solutions and implementation follow in the concluding section.

Increasing The Number Of Low Cost Units Available

Given strong market demands for housing and high local housing construction costs, rental housing probably cannot be provided cheaply without direct and indirect subsidies from most or all levels of government, and even from private enterprise. These subsidies include: federal construction and operational subsidy programs, advance land purchase programs, favorable local land use regulations, employer subsidies, state loan financing subsidies, grants and technical assistance. Workability of different solutions also depends on whether the persons or households needing to be served are year-round or temporary residents.

Construction, operational and financial subsidy programs are operated primarily by the Federal government, but the State also has a subsidy program. Several different approaches are employed.

Conventional public housing programs (such as the U.S. Department of Housing and Urban Development (HUD), Indian Mutual Help and Elderly Housing Programs, Farmers Home Administration (FmHA) Self Help Housing, and Bureau of Indian Affairs (BIA) Housing Improvement Program) typically utilize private contractors to construct housing units, then rent or sell the units to low or moderate income occupants at a reduced, or below market, price. The difference between actual cost and rates charged represents a direct subsidy by the Federal government. Assisted persons or households often must also contribute labor, materials, land or cash to the cost of the project. Very low income persons are usually served only by rental units.

Home ownership financing subsidy programs (such as HUD-Federal Housing Administration loan guarantees, FmHA direct loan interest subsidy program, BIA Indian Financing Act Loan Program, and Alaska Housing Finance Corporation loan purchase program) subsidize purchasers of private market housing by reducing interest rates and down payment terms, and by extending credit to persons or households who are not able to obtain financing from private lenders.

Targeted primarily to moderate income (but not low income) households, the programs either issue reduced rate loans directly or agree to buy specific loans from private lenders on favorable terms which the lender passes on to the consumer.

Land use regulations are often used to reduce housing costs for worthy projects. Approaches include allowing additional lot density (thereby spreading fixed land and site improvement costs over more units and lowering per unit costs), or exemptions from specific design standards. To the extent that other developers might then be required to provide more open space, and other amenities to make up the difference, this approach represents an indirect, almost hidden subsidy. In some instances, large developers may be required to provide a certain percentage (such as 10 percent) of their units for sale or rent at below-market rates.

Direct grants-in-aid or in-kind services to local governments or other local non-profit groups (such as regional housing authorities) from agencies such as HUD (Community Development Block Grants) BIA (roads and housing replacement grants) and the U.S. Indian Health Service (sewer and water service to Native households) are also used. In many cases, if sufficient benefit can be shown to low and moderate income households, grants can be used to pay for a large percentage of site acquisition and improvement costs.

Advance land purchase (land banking) programs work especially well in areas where rapidly rising land prices threaten the ability of local housing agencies to obtain needed housing sites for prices which meet federal housing program guidelines. Funded by donations of cash or land from local governments, private groups or state or federal grants, land banking programs serve to short circuit speculation - driven price inflation by holding fixed or even lowering the cost of housing sites at levels acceptable to granting agencies. Land banking also avoids time consuming delays in obtaining title to housing sites prior to constructing new units. If housing site prices are rising extremely rapidly, and funds are too limited to purchase sites, some land banking programs purchase options to desirable sites, holding the option until funding materializes. Alternatively, such sites could be part of the Seldovia Native Association, Inc.'s municipal reconveyance to the City (see Chapter 10).

Employers often participate in subsidizing housing costs for workers who may have trouble securing acceptable housing at affordable prices. In many cases, employers can play an important role at little direct cost to themselves. For example, some employers build or purchase housing or mobile home sites, in large lots, renting or selling them to employees at reduced cost and passing on savings from volume purchases. Alternatively, some large employers in small communities sign rental or sales committments with housing developers, thereby improving the ability of housing developers to obtain financing. Other possibilities include direct contributions to the cost of site improvements in a mobile home park, and direct loans to local agencies or private developers to finance housing-related development.

Technical assistance is often made available to individuals in the form of classes, written materials, and loaned tools to assist individuals to build their own housing. FmHA offers grants to undertake such work.

Increasing The Proportion Of Home Ownership

Increased proportions of home ownership will probably occur if the economic development of Seldovia succeeds in providing increased income-earning opportunities to residents, and residents desire to purchase rather than rent their own housing. Under the intermediate and high scenarios, economic growth and increased income-earning opportunities will probably lead to increased home ownership among resident households. If economic growth does not occur, little improvement can be expected in the present ratio of home ownership.

Three aspects of the home ownership process deserve attention from the community if the level of home ownership is to be maximized. These aspects are: access to financing, access to purchase subsidies, and availability of suitable building sites. Each aspect is discussed below.

Access to financing can be increased by ensuring that residents are aware of and have ready access to sources of financing. Although Seldovia probably would not support a full-time bank and lending office with its current population, part-time offices could be established for use by major public and private lenders. Lending information could be kept on display, enabling residents to readily find out about financing opportunities, terms, requirements, application procedures and the like.

Access to purchase subsidies can also be similarly assisted. Housing agencies such as the Cook Inlet Housing Authority could be encouraged to visit Seldovia regularly to determine local interest in subsidized housing projects and carry out planning and construction management.

Availability of suitable building sites can also have a great impact on the ability of residents or builders to construct new housing suitable for local ownership. Developable areas identified in the land use chapter could receive first priority for City capital improvements to encourage development and utilization of the most suitable building lots. Prior to undertaking capital improvements, special attention might be given to these sites to ensure that improvements are likely to be utilized, particularly if public funds will be used to underwrite part of the costs.

Increasing The Number Of Desirable Mobile Home Sites Or Parks

Strong demands for mobile home sites can be recognized and accommodated by taking action to assure acceptable siting and development of mobile home parks. Such action will be especially important if the intermediate or high growth scenarios occur, as mobile home housing would probably be heavily utilized if rapid growth occurs.

Several public and private groups can contribute to the achievement of this objective. The City may undertake any of several possible roles:

- o Regulatory - Zoning and other land use controls can be used to allow and encourage mobile home parks or other high density residential uses in specific areas, and to require good building and development practices.

- o Indirect (Proprietary) - The City could obtain title to specific, selected sites through lease-option agreements or outright purchase, and lease or sell the site(s) to private developers with specific covenants regarding development and operation.
- o Direct (Proprietary) - The City could obtain title to specific selected sites through reconveyance or outright purchase, and develop the site directly, with full control over design and construction. After completion, the City could manage the site or lease it to a private operator with covenants governing maintenance of the site. The City's access to grants-in-aid and low cost loans can lower development costs below that which private developers can achieve.

Private developers, such as SNA, can similarly participate either directly or indirectly.

Maintaining And Improving Housing Quality

Housing repair and rehabilitation can be encouraged by several methods. First, the community can encourage greater awareness of public and private housing improvement finance opportunities by establishing greater local presence of public and private lenders. This could include part-time local offices, an information center at City offices, and preparation of brochures explaining housing finance, contracting, subsidy programs, and the like.

For persons with housing improvement needs but with limited financial means who are unlikely to be served by outside programs, the City could establish its own program to provide subsidies or outright grants of materials or funds depending on recipient's needs. Health and safety repairs could be required as a condition of receiving assistance. Repayment, if required, could be channeled through a private lender, and could be deferred until the occupants either move or sell their house. A variety of State and Federal grants are available to finance this type of activity, including FmHA Section 504 Housing Repair Grants, HUD Community Development Block Grants and Section 312 Housing Repair loans and grants, BIA Housing Improvement Program Grants (for Alaskan Natives), and weatherization grants from the Community Services Administration and Federal Energy Administration. The drawbacks to such grants, however, are that assistance is limited to low and moderate income households, and administrative requirements may be substantial.

Finally, home construction and repair training could be offered to homeowners through the community college, the Seldovia School or FmHA grant-funded training programs.

Financing Capital Improvements For New Housing

Four approaches can be taken to finance capital improvements in public services for new housing.

First, hookup fees, special assessment districts and the like can be used to have private developers share the financial burden, and enable the City to stretch public funds to service more areas.

Second, per unit costs can be reduced by encouraging infilling, or construction on vacant lots in areas of exksting develnpment. This will absure maximum use of new capital improvements. Additionally, prior improvements will be better used.

Private housing construction on close-in, easily-serviced building sites can be encouraged by scheduling city capital improvements to service large areas of suitable land. This would encourage private developers to proceed with housing construction if availability of necessary public services is assured.

Finally, State and Federal grants may be obtained (to the extent possible) and added to City and private funds to increase the amount of improvements that can be financed.

Increasing The Number Of Lots Suitable For Building And Financing

Again, a combination of public and private involvement can address this problem. This includes land development policies of major landowners, but can also include favorable public service extension policies.

Essentially the same types of public and private actions which will improve low cost housing opportunities would increase the number of financeable home building sites.

Controlling Undesirable Effects Of Seasonal Housing And Non-Resident Ownership Of Housing

It is difficult to restrict non-resident ownership in a private market given the presence of a strong, persistent outside demand. Practically any type of land use control which might be devised strictly for seasonal housing would be of questionable legality. One approach, however, is to encourage separate location of such units by city taxation and service policies (such as differential taxation zones). Also, land use regulations (such as zoning and subdivision controls) can control some of the worst aspects of seasonal housing development (see Chapter 5).

PLANNED SOLUTIONS

Seldovia can achieve many of its housing objectives by combining the many resources available in a concerted effort. The costs of meeting housing goals and objectives, however, can be substantial under any growth scenario. Given the City's limited financial resources and pressing needs in other areas, outside sources of assistance can and will be used when avaiable. Planned solutions to the issues, goals and objectives are described below.

GOAL: Opportunities to obtain affordable, adequate quality housing, with a diversity of housing type, tenure and style available to choose from.

OBJECTIVE: Increase the number of low or moderate cost units available.

A broad range of public and private involvement can accomplish this objective. Actions range from a greater local presence by public and private lenders, to flexible City land use regulations, to capital improvement programming and direct development by public bodies. No one single approach will solve this problem; rather, a number of approaches must be blended to attain success. Planned solutions are presented below.

POLICY: The City and concerned local groups shall explore and utilize a wide range of housing assistance available to increase low and moderate cost housing opportunities, and wherever possible shall tailor activities to the unique needs of the individual and households to be served.

ACTION 1: The City shall establish a housing land banking program to reserve low cost sites for subsidized or other year-round housing using ANCSA municipal reconveyances, grants or donations of land from private parties.

ACTION 2: The City shall explore with Cook Inlet Housing Authority and Federal housing agencies the possiblity of constructing low cost rental or ownership housing, and shall cooperate to bring projects through to completion.

ACTION 3: Seldovia Advisory Planning and Zoning Commission shall recommend, and Borough Planning and Zoning Commission and Borough Assembly adopt, amendment to zoning ordinance to allow consideration of low rental or sales price of housing as positive factor in favor of applicant in platting and zoning actions.

ACTION 4: Advisory Planning and Zoning Commission shall endeavor to obtain and utilize Borough, State and Federal financial assistance and ANCSA municipal land reconveyance to allow low cost or other subsidized housing land and site improvement costs to be reduced or eliminated.

ACTION 5: The City shall condition extension of services to industrial developments upon employer participation in providing for housing needs of employees. Such participation may include, for example, site rental committments, site purchase and lease-back programs, or direct loans to housing developers.

ACTION 6: The City shall work with Kenai Peninsula Borough School District, Kenai Community College or other public agencies to develop programs to train interested residents in home construction skills, tool loans, etc.

OBJECTIVE: Increase the proportion of families owning their own housing.

POLICY: The City and other community groups will support efforts to increase the proportion of residents owning their own housing.

ACTION 7: The City shall work with public and private lenders and housing providers (such as Cook Inlet Housing Authority) to increase access to and knowledge of housing finance opportunities, requirements and procedures, including establishment of a regular lending office.

ACTION 8: The City will gauge its capital improvements program to serve the greatest number of developable building sites at least possible cost. This will be accomplished by using outside financial assistance, cost sharing by benefitted property owners, and following the Capital Improvement Program shown in Chapter 12.

OBJECTIVE: Accomplish upgrading of existing, and establishment of additional, mobile homes and mobile home parks. Assure compatibility with surroundings if located on single lots.

Actions to meet the mobile home housing objective are based upon a three part approach. The first is active, direct involvement in mobile home park development by the City. The second is the combination of the City's efforts with those of other public and private organizations. The third part is ensuring that proper design, siting and construction standards are followed. This approach is described in the following adopted policies and planned actions.

POLICY: The City will provide additional mobile home housing opportunities built to acceptable standards and located so as to be compatible with other uses.

ACTION 9: Identify desirable sites for additional mobile home parks based on land use plan (see Chapter 5, Figures 5-7 and 5-8).

ACTION 10: Determine ownership of sites, and negotiate with owners for trade or purchase (with lease back), obtain grant assistance, develop park.

ACTION 11: Determine most suitable operator for park; lease to private operator if feasible.

ACTION 12: Review proposed platting and zoning actions involving potential mobile home housing with reference to mobile home park siting criteria contained in Chapter 5.

POLICY: Existing mobile home parks shall be encouraged to improve facilities or to relocate if present location is not consistent with mobile home park siting criteria.

ACTION 13: Determine feasibility of leasing operation and management of City-owned mobile home park to private operator.

ACTION 14: Evaluate operation of existing mobile home parks with present owners, and assist owners to obtain financing for corrections to deficient aspects.

ACTION 15: Enforce City building, housing, zoning and fire codes.

OBJECTIVE: Maintain and improve the quality of existing and future housing.

All of the possible solutions identified earlier are planned for implementation. Again, a significant number of sources of outside assistance can be utilized, with assistance geared to the financial ability of the homeowner to contribute.

POLICY: The City shall attempt to locate and bring to bear on housing quality problems outside sources of financial and technical assistance, scaled to the ability of residents to contribute their own resources.

ACTION 16: Determine feasibility of establishing and implementing if acceptable, a partial exemption on increased property taxes due to home improvements for fixed length of time following completion of improvement. (For example, first 30 percent of assessed valuation increase due to improvement could be exempted from taxation for first three years).

ACTION 17: Explore possibility and desirability of obtaining funding for technical assistance from State and Federal agencies for financing housing improvement through grants or loans. Establish if desirable.

OBJECTIVE: Determine and implement best and most equitable way to finance public services needed for new housing.

The primary emphasis here would be to minimize costs of capital improvements through a capital improvements program aimed at serving the greatest number of developable lots for the least cost, thereby spreading costs over a larger number of users, and lowering per lot costs. Also, improved City financial management to provide a healthy General Fund can enable the City to better avail itself of State and Federal financial assistance.

POLICY: Public services necessary to serve specific housing sites shall be financed primarily by available Borough, State and Federal assistance and benefitted property owners. General or Capital Improvements Fund revenues shall not be used unless benefitted property owners have contributed in proportion to benefits received from the service.

ACTION 18: Explore and utilize Borough, State and Federal grant assistance wherever possible.

ACTION 19: Explore and utilize special assessment districts (LID's), hook-up fees, subdivision service standards and other payment mechanisms to ensure that benefitted properties share cost in proportion to benefit received.

ACTION 20: City establish Capital Improvements Fund, and make annual appropriations to it to provide "own source" of revenues to finance public improvements.

OBJECTIVE: Increase number of building sites available. (Addressed under Actions 1, 8, 9, 10, 11, and 12).

OBJECTIVE: Control undesirable effects of seasonal housing and non-resident housing ownership. (Seasonal housing and non-resident housing ownership are addressed under Actions 1 through 6, 22 and 23.

Chapter 5
Land Use and Coastal Management

Seldovia's use of the land reflects the natural constraints of the area. Buildings along the steep shoreline of the slough are built on pilings, while rock outcroppings and wetlands meander in and out of developed lots, creating a sense of open space. Contrasting this is the more recent urban renewal project, by the Alaska State Housing Authority, of the waterfront after the 1964 earthquake. This area is characterized by a large plain of fill used to restore waterfront areas to elevations above the range of high tides.

ISSUES, GOALS AND OBJECTIVES

Several issues have been identified regarding the way in which land is used in Seldovia. These issues include:

(1) Lack of a strong sense of a commercial center in Seldovia.

(2) Desire for stronger links (such as views, pedestrian access, etc.) to waterfront.

(3) Desire to retain diversity, individuality and compatibility in community design.

(4) Desire to preserve and maintain historic features of community (waterfront housing, pioneer homes, churches, boardwalk, etc.)

All of these issues point to a desire for the City to return to the pre-urban renewal period, when the commercial district was more indentifiable, the link between the waterfront and the rest of the City was strong and greater diversity in community design prevailed. To address these issues, the following goal was developed:

GOAL: Well-defined order to the land use fabric of Seldovia; continued development of Seldovia preserving, maintaining and enhancing valuable and unique features of the community.

Five objectives define how the goal is to be achieved:

(1) Update land use and community development plans to reflect current conditions, adopt and implement through zoning ordinance.

(2) Ensure location of most commercial uses adjacent to existing commercial area.

(3) Create strong physical links between waterfront and community through private and public actions.

(4) Retain diversity and individuality in public and private development.

(5) Preserve and enhance valuable, unique and historic features of Seldovia.

BACKGROUND

Seldovia is situated in and around several steep hills and rock outcroppings, which have had two major effects on development of the community. The hilly setting provides the residents with a variety of vistas and interesting housing sites. These features lend not only character to the City but also provide open space relief from the relatively high density of buildings in developed areas of Seldovia.

However, this natural condition renders the construction of roads and utilities both difficult and expensive. The hilly topography and areas of poor soils render approximately 77 acres within the city limits unsuitable for building.

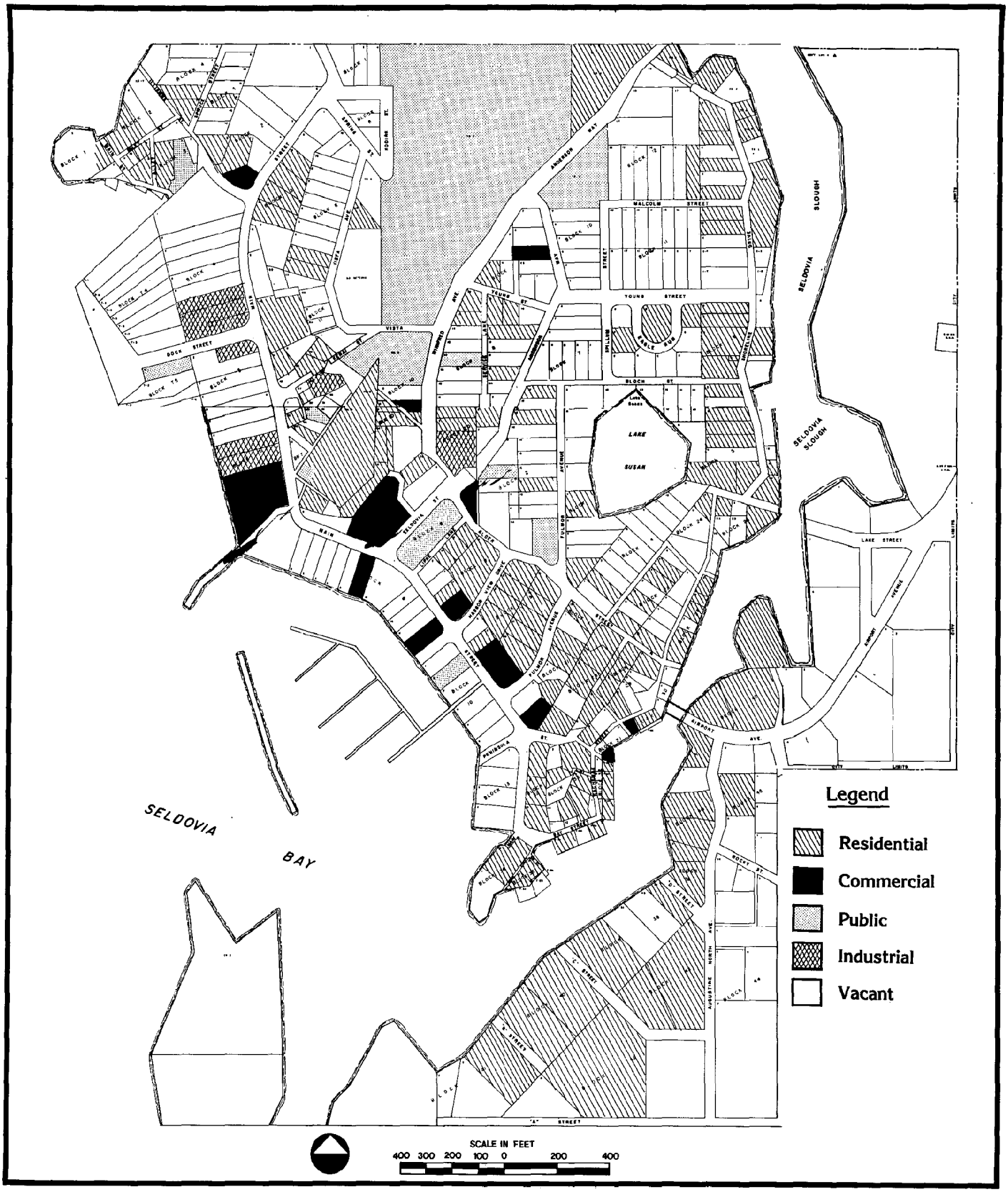
Another constraint on development is that the original platting of Seldovia was apparently done with little regard to topography. Platted, unimproved streets traverse steep grades, making many quite expensive and, in some cases, nearly impossible to construct. Also, existing roads have not always been established within the assigned right-of-ways. This causes conflicts between the City and the property owner on whose land the road crosses (see Chapter 8, Transportation). All of these factors contribute to the difficult task of developing Seldovia and the problems which the City is faced with in attempting to enforce municipal policies, codes and ordinances.

Existing Land Use

The land use pattern within the city limits of Seldovia has not changed a great deal since the comprehensive plan was completed in 1969. Although residential use has increased throughout the City, the physical relationship between commercial and industrial activities are mostly located along the waterfront of Seldovia Bay, while residential uses remain located on the uplands. Marine-oriented residential uses cluster around Seldovia Slough.

Seldovia presently has approximately 25.50 acres of land used for residential purposes. With approximately 300 houses within the city limits, the average residential density of Seldovia is very high, averaging 11.7 dwelling units per acre. The acreages for other uses are: commercial, 2.2 acres; industrial 4.0 acres; and public (school, churches, municipal buildings) 9.3 acres.

Due to topography and the scarcity of large tracts of vacant land owned by a single party within the City, residential development pressure has occurred outside the city limits. To date, there has been no large scale residential development. However, a 97 lot subdivision has been proposed in the area of Fish Creek Watershed, and Seldovia Native Association, Inc. has conveyed to its members a large lot subdivision near Barabara Point along Kachemak Bay. Figures 5-1, 5-2 and 5-3 show present land use in Seldovia and existing land ownership patterns in Seldovia and vicinity.



SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

Figure 5-1

Existing Land Use

PACIFIC RIM PLANNERS, INC.

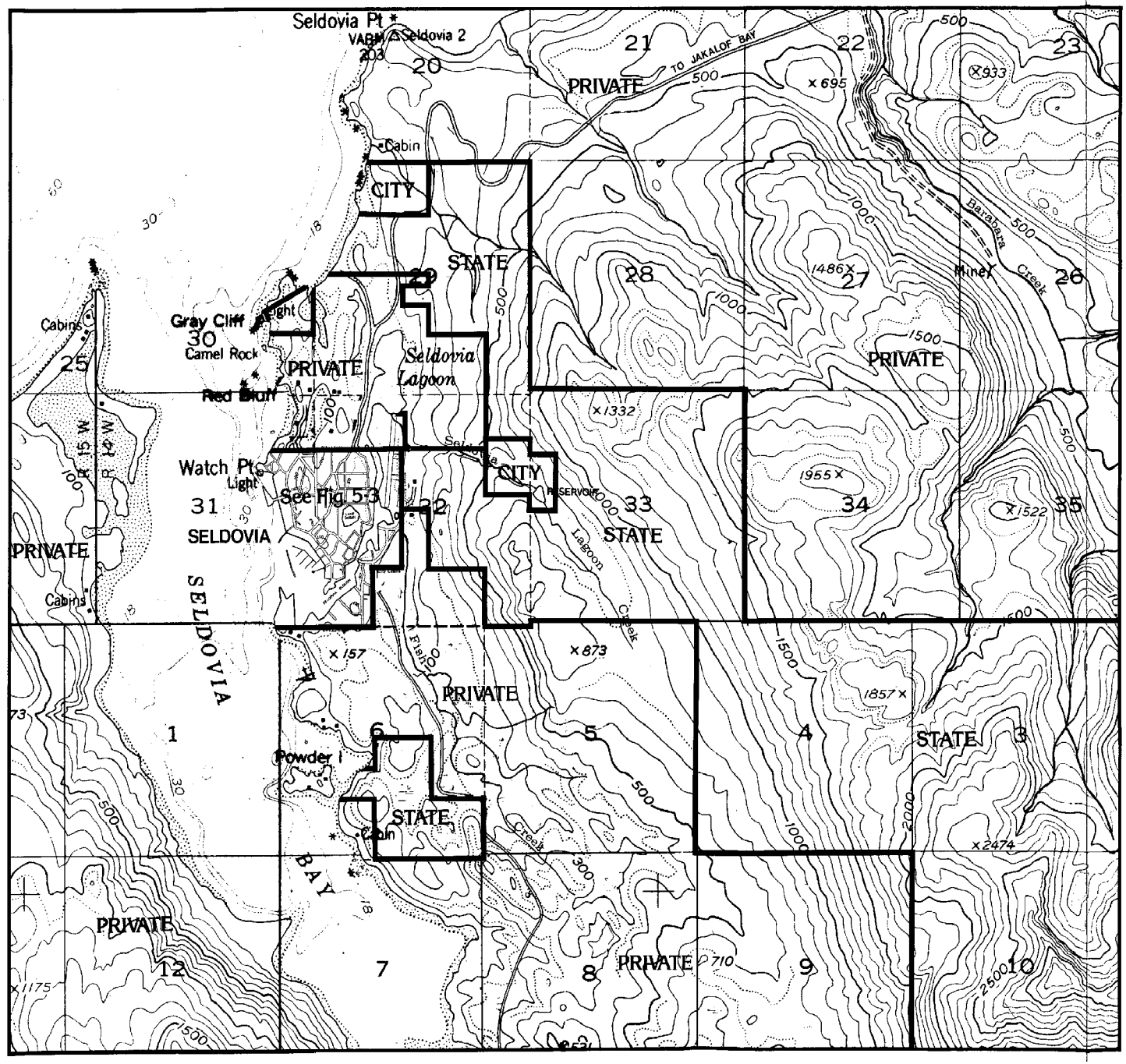


Figure 5-2

Land Ownership

Ownership Boundaries

SCALE IN FEET
0 500 1000 2000 3000

SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

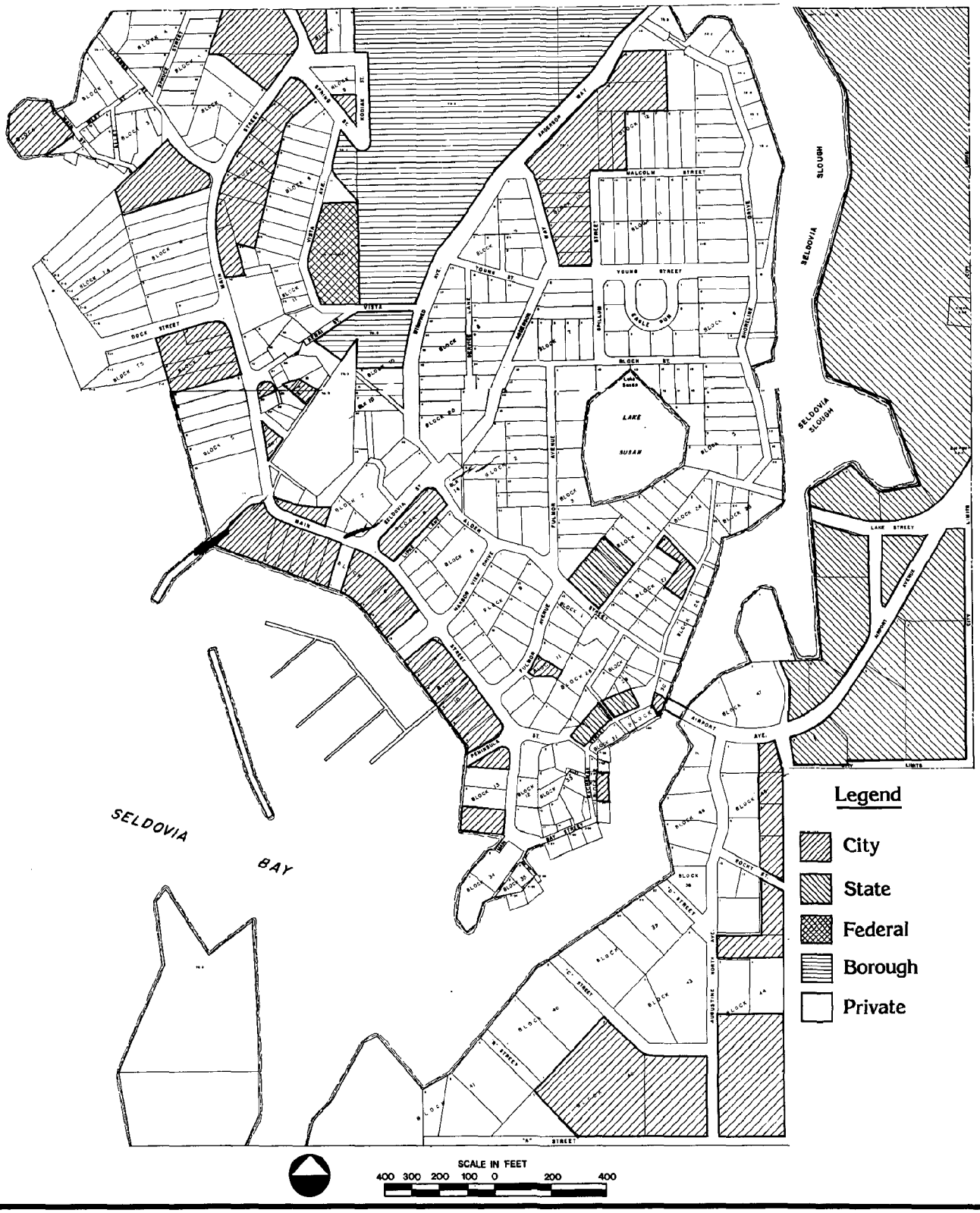


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Figure 5-3

Land Ownership

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Zoning

The City of Seldovia, with approval of the Kenai Peninsula Borough, has selected the method of zoning to regulate land use within the City. Presently, the City has both a zoning contract and zoning ordinance. The contract covers the lands within the Alaska State Housing Authority (ASHA) sponsored, urban renewal area, and the ordinance covers all areas of the City. Although different, the two documents seem, on the surface, to be compatible.

Under Alaskan law, planning, platting and zoning powers for land and areas both within and outside of Seldovia are vested with the Kenai Peninsula Borough. By decision of the Borough Assembly, advisory powers have been delegated to the City of Seldovia. Planning, platting and zoning powers are referred to the Seldovia Advisory Planning and Zoning Commission for recommendation prior to Borough action. Planning ordinances (such as zoning or subdivision codes or plan adoption actions) are also referred to the City Council, and are often adopted without amendment by the Borough Assembly.

ALASKA STATE HOUSING AUTHORITY (ASHA) CONTRACT

Effective as of November 5, 1971, the contract between the City of Seldovia and ASHA was established for a period of 40 years and encompasses the urban renewal area along the waterfront of Seldovia Bay. The contract classifies and defines five basic uses - residential, commercial, marine commercial, industrial and public. However, there appears to be an inconsistency between the zoning contract text and the zoning map attached to the contract. The zoning map reflects a zone entitled commercial-residential (CR) for which there is no provision in the contract document text.

SELDOVIA ZONING ORDINANCE

During the spring of 1979, the Seldovia City Council approved a zoning ordinance expending land use controls to portions of the City outside of the ASHA urban renewal area. This ordinance was subsequently adopted by the Kenai Peninsula Borough Assembly. The ordinance classifies and defines six basic uses. These include residential, residential special multi-family, waterfront, commercial residential, commercial, marine commercial and industrial. All but marine commercial are represented on the zoning map adopted by the Borough. The ordinance also accepted the terms of the ASHA contract.

The ordinance and contract, as noted, seem to be compatible, with the exception of the commercial districts. The ASHA contract allows single family, duplex, and multi-family residential development in commercial areas. The only residential developments allowed in the regular commercial districts are complexes with more than four dwelling units.

Most land in the City is zoned in the RG (Residential General) and WCR (Waterfront Commercial Residential) categories. Table 5-1 summarizes the total area of land classified into each of the zoning categories.

Due to the relatively unrestrictive nature of the zoning ordinance and zoning contract, a variety of land use patterns could be realized. Of the eight district classifications, four allow commercial development, and six allow

TABLE 5-1

AMOUNTS OF LAND IN SELDOVIA ZONING CLASSIFICATIONS

ZONE CLASSIFICATION	ACRES (INCLUDES ROAD)	PERCENT OF TOTAL
Residential General (RG)	115.5	42.2
Residential Special Family (RSM)	1.8	0.6
Waterfront, Commercial Residential (WCR)	104.6	38.2
Commercial Residential (CR)	15.0	5.5
Commercial (C)	11.0	4.0
Commercial Marine (CM)	6.4	2.3
Industrial (I)	11.6	4.2
Public (P)	8.0	3.0
TOTAL	273.9	100.0

Source: Pacific Rim Planners, Inc.

some type of residential development. In general, however, commercial and industrial uses will be concentrated along the waterfront of Seldovia Bay. The only exception to this is an eleven acrea area zoned commercial on the southeastern side of Winifred and Anderson Way, across from the school. This commercial area is surrounded by residentially zoned land. The uplands not adjacent to the water are zoned residential, with single and multi-family residential use allowed. Lands adjacent to Seldovia Slough are classified Waterfront Commercial Residential (WCR). This district allows single family and multi-family residential use and commercial use as long as they meet specific performance standards.

As defined in the ordinances, each district (with the exception of (RSA) allows many different and potentially conflicting uses. Because of this condition, it is important to monitor the effects and impacts of any of the possible or allowable uses on the adjacent neighborhoods and the City as a whole. Should it be found that the impacts of one use upon others in a district are undesirable, this use should be either eliminated or measures taken to reduce the impacts.

Figure 5-4 shows existing zoning district boundaries, and Figure 5-5 reviews the zoning districts in terms of their purpose, possible uses, and potential impacts between allowable uses. As the chart indicates, land use conflicts have the potential to occur where a variety of uses are permissable in a single zone. Most noticeable conflicts are likely to occur in the Residential General District (RG) and the Waterfront Commercial Residential District (WCR).

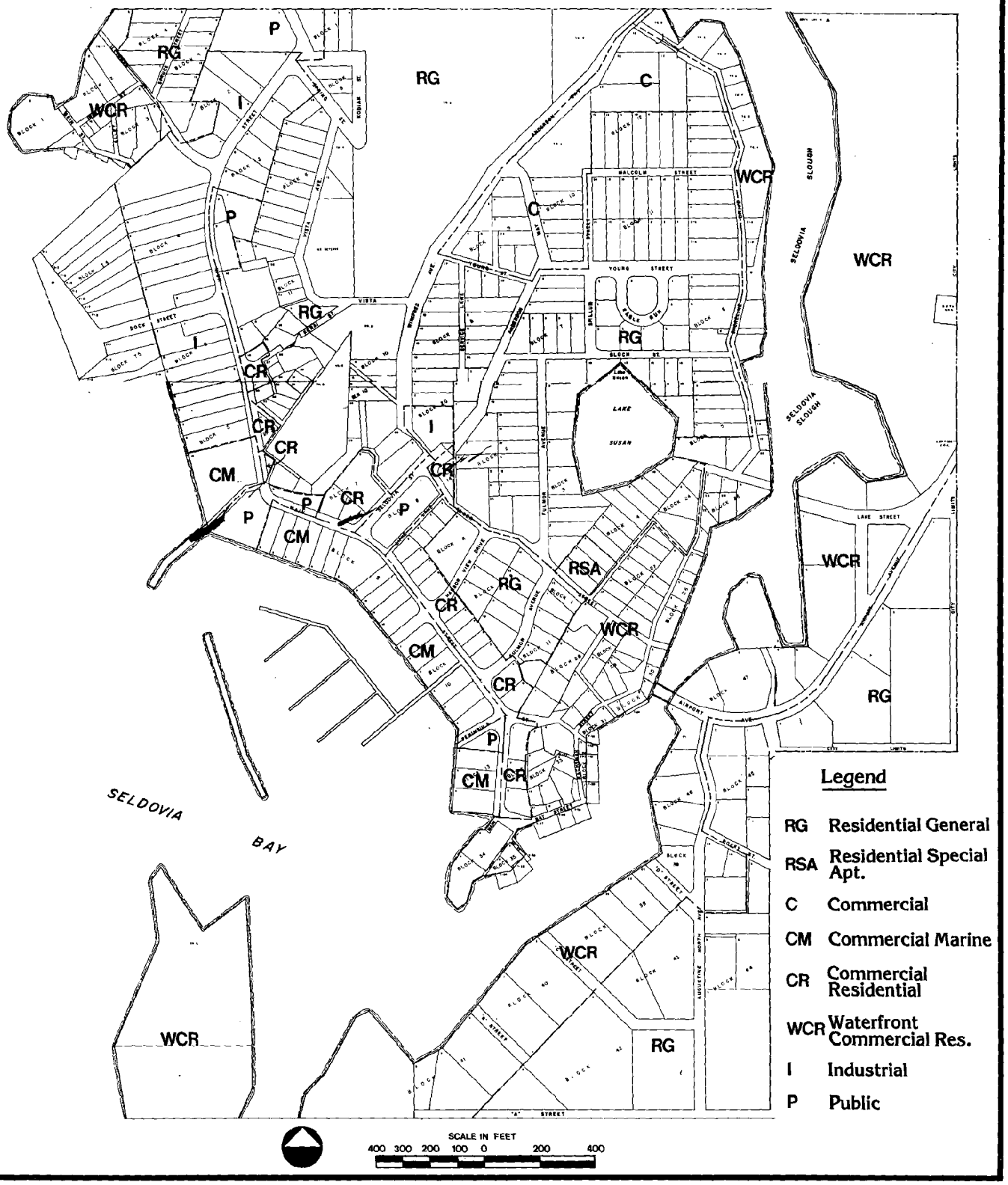

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Figure 5-4

Existing Zoning

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FIGURE 5-5
PERMISSABLE LAND USE ACTIVITIES AND POSSIBLE CONFLICTS
IN SELDOVIA ZONING DISTRICTS

DISTRICT	PURPOSE	USES OF ACTIVITIES: Single Family	Multi-Family >4DU	Multi-Family <4DU	Home Occupation	Mobile Home	School/Church	Retail	Service	Wholesale	Entertainment	Parking	Equip. Sales	Seafood Processing	Transportation	Planned Unit Dev.	Manufacturing	Multi-Family-Elderly	Office	Parks/Gov.Offices	POTENTIAL IMPACTS WITHIN DISTRICT
RG	Residential Development	●		●	●	●	●														High Density MF & MH Impacts SF W/Traffic Noise, Light Etc.
RSA	Elderly Multi-Family																●				None
WRC	Mixed Use	●	●	●	●	●		●	●												High Density MF & MH Impacts SF W/Traffic Noise, Light Etc.
CR	Residential Commercial Mix																				None
C	Business		●																		MF Impacted By Commercial Development
CM	Water Dependent Uses						●	●	●	●								●			Commercial Impacts Residential
I	Industrial Uses	●							●			●	●	●	●	●					None
P	Public Uses																		●		None

Legend:

● Permissable use in districts

Not permissable use in district

Residential General (RG) District

Within this district, permitted uses include single family, multi-family (less than 5 dwelling units per acre), mobile homes and home occupations. The major possible conflicts between these uses stem from their varying densities. Multi-family and mobile home park developments generally have more dwelling units per acre and therefore more traffic, people, noise and glare, all of which impact the single family residents. This impact could be recognized by either establishing a high density residential district or by establishing measures to mitigate the impacts. This could be accomplished by requiring features such as buffer strips, parking standards, street development standards, yard requirements, and the like.

Waterfront Commercial Residential (WCR) District

This district stresses multiple uses ranging from commercial development to single family use. Unlike the other districts, WCR requires that each permitted use meet a series of performance standards. General in nature, the performance standards may not be strong enough to reduce possible conflicts between adjacent residential and commercial uses (such as no noise limitations between adjacent residential and commercial uses).

The overall designation of the various zones in the City is good. Each zone reflects the dominant use of the area with the exception of the commercial zone along Winifred and Anderson Way across from the Seldovia School. This area was zoned in this designation as a means of responding to and controlling the effects of residential growth north of the city limits. This commercial area was intended to serve these non-city residents without their having to go into the "center" of town. Also, this may be the only presently vacant area within existing city limits capable of accommodating expanded commercial uses oriented to traffic from outlying areas.

There are three major drawbacks to this designation. First, the fact that many other services, such as the post office, city offices, and community health center which the non-city residents come to Seldovia for, are located in the central area of the City. A second drawback to consider is that a city of Seldovia's size is not likely to be able to support two commercial areas. Finally, the Winifred/Anderson Way commercial area has the potential to negatively impact adjacent land uses, particularly the school and surrounding residential properties.

One additional classification which is needed in the zoning ordinance is a high density residential zone designated for multi-family and mobile home units. By including this designation, multi-family uses can be dropped from the list of permissable uses in the RG and WCR Zones, and the impacts of this high density use on predominantly single family neighborhoods could be reduced. Typically, multi-family and mobile home residential uses are located on the fringes of commercial areas. In the case of Seldovia, however, these lands are either already developed or are undevelopable.

The Homer Electric Association's power plant at the intersection of Anderson Way and Winifred Avenue has been given special treatment in the zoning ordinance due to its unique status. Currently used only during power outages, the plant

assures continuous electric power to fish processing plants and the community, and is consequently of great importance to the Seldovia economy. Even though other industrial uses are not encouraged in this area, the HEA power plant site has been zoned Industrial to ensure that zoning will not be an impediment to continued operation of the plant or reconstruction in the event that the plant is destroyed by fire.

SITING HIGH DENSITY RESIDENTIAL USES

Multi-family housing, mobile home parks and other high density uses have proven to be difficult to site without impacting adversely on other uses. General criteria which could be used to site high density residential development indicate that such uses should be located:

- o In areas of compatible land use and surrounding environments;
- o In areas with adequate utility and road support systems;
- o In areas with reasonable convenience to community facilities;
- o In areas of similar density, such as a mobile home density of 4 to 7 dwelling units per acre;
- o In areas of logical extension of infilling (development of vacant land in otherwise developed areas) or existing urban growth pattern;
- o In areas where soil conditions, groundwater level, drainage, flooding and topography does not create hazards to the property or the health and safety of the residents;
- o In areas which are not subject to adverse influences of adjacent land uses.

Applying these criteria to the existing conditions in Seldovia, there appear to be three sites which could be developed as high density residential areas without significant adverse impacts on either the surrounding community or future residents of the area.

The first potential site is located in the northwest corner of Seldovia on the northwest side of Main Street, opposite Spring and Kodiak Streets. The area is presently zoned industrial, although residential-general zoned lands are adjacent to both the west and east. The site is also adjacent to the existing mobile home park. The advantage of this site is that it is on a major street, is relatively flat, is served by utilities and will probably not adversely affect adjacent land uses.

The second possible site is located on Anderson Way, on or near the school property adjacent to the school. The area is presently zoned Residential-General, and is somewhat restricted due to slope. This site is advantageous for high density use because it is close to community facilities, is on a major street and is served by utilities.

The third possible site is located near Site 2 on Anderson Way. It is bounded on the north by Malcom Street, on the east by Spillum Street and on the south by Young Street. This site is also served by existing utilities, is near a major street and is near community facilities. The area is presently zoned commercial. The site is limited by wet soils and seasonally swampy conditions, and would have to be filled and drained to accommodate intensive residential development.

Each of the three sites could meet the suggested criteria mentioned above. Design of the development is critical, however, in determining the extent of impacts on the community design. Elements such as buffer strips, individual lot fencing and screens, assigned parking areas, and aesthetic considerations will considerably affect the acceptability of high density housing development.

Accommodating Future Development

At the present time, Seldovia is feeling some growth pressure from residential developers. In the future, if the intermediate or high growth scenarios are achieved, this pressure will likely increase. The decisions on land use which the City makes now will determine if the impact of growth is positive or negative.

Buildable vacant land within city limits currently totals 27 acres. Based upon population and employment projections, there appears to be adequate land available within the City to accommodate commercial, industrial and public uses. However, the amount of residential buildable land available in the City can only accommodate about 35 single family homes. *This means that much of the residential growth will probably be located outside the present city limits, unless additional developable areas are annexed.* Table 5-2 summarizes projected additional land use demands versus availability under the intermediate scenario.

TABLE 5-2
PROJECTED ADDITIONAL LAND REQUIREMENTS VERSUS AVAILABILITY
WITHIN CITY LIMITS UNDER INTERMEDIATE GROWTH SCENARIO
1980 - 2000

LAND USE	PROJECTED ADDITIONAL LAND REQUIREMENTS, 1980 - 2000 (Acres)	Present Availability of Vacant, Suitably Zoned Land Within City Limits** (Acres)
Residential	200.*	14.0
Commercial	3.14	4.43
Industrial	2.57	4.76
Public (Not Including Parks)	.60	2.34

* Based on low density lots (1 dwelling unit/2 acres) in planning area, outside city limits, assuming no public sewer or water service is available.

** Based upon the amount of land zoned for specific use which does not have overly high water table or slope greater than 20%. In zones which allowed more than one category of use, existing development ratio between uses was applied.

Source: Pacific Rim Planners, Inc.

RESOURCE LIMITATIONS FOR DEVELOPMENT

Major limitations to residential growth such as steep slopes and poor drainage lie on all sides of the City. Several criteria were used to identify devel-

opable lands outside the City. These included the degree of slope, soil permeability, proximity to existing roads and land ownership.

The degree of slope affects development because it is usually more expensive to build upon steeply sloped (20 percent grade or more) than on moderately sloped or level ground. Not only are building costs higher, but utility and road construction costs are also usually higher. Although individual site conditions and building design vary, 25 percent grade is typically used as an upper limit of slope for most buildable lands. (Home building and other development can utilize steeper slopes, but only at the expense of extensive site preparation and foundation work). Based on this criteria, developable lands include only those which are less than 25 percent slope in addition to meeting other criteria.

Soils play an important role in the determination of buildable lands. For this analysis, developable lands also excluded those whose soils are poorly drained, susceptible to flooding, slides or massive earth movement.

The degree to which access and city services can be provided depends on the utilization of existing roads and rights-of-way. Again considering cost as a limiting factor, buildable lands were limited to those within 2,000 feet of existing roads. Lands in public ownership are indicated separately as areas potentially unavailable for residential expansion.

Applying these criteria to the land, Figures 5-6 and 5-7 show the location of lands inside and outside of the present city limits which are available for future development. If either the intermediate or high growth scenarios are realized, particularly in the absence of additional land use controls, it is likely that residential expansion (at varying densities) would occur throughout the area mapped as "developable".

Buildable land outside Seldovia's city limits exists in a largely lineal pattern north and south of the City. As Figure 5-7 shows, a great percentage of land potentially available for development lies directly south and east of Seldovia Point. Additional land is available contiguous to the north and south boundaries of the city limits, south of Fish Creek Watershed, and, based on physical capability alone, within selected portions of lower Fish Creek Watershed.

The Fish Creek Watershed poses particular problems when considered for the purposes of residential expansion. These factors will be discussed separately in Chapter 6. Given continued use of Fish Creek as a public water supply source and enactment by the City of recommended watershed management controls, however, growth would essentially be restricted to two areas in the lower portion of the watershed.

Considerable land (approximately 186 acres) is required outside the City to meet projected residential growth needs. This requirement could be met partially through development within the two "developable" areas contiguous to the north and south boundaries of the City. Lower density development could also be accommodated east of Seldovia Point.

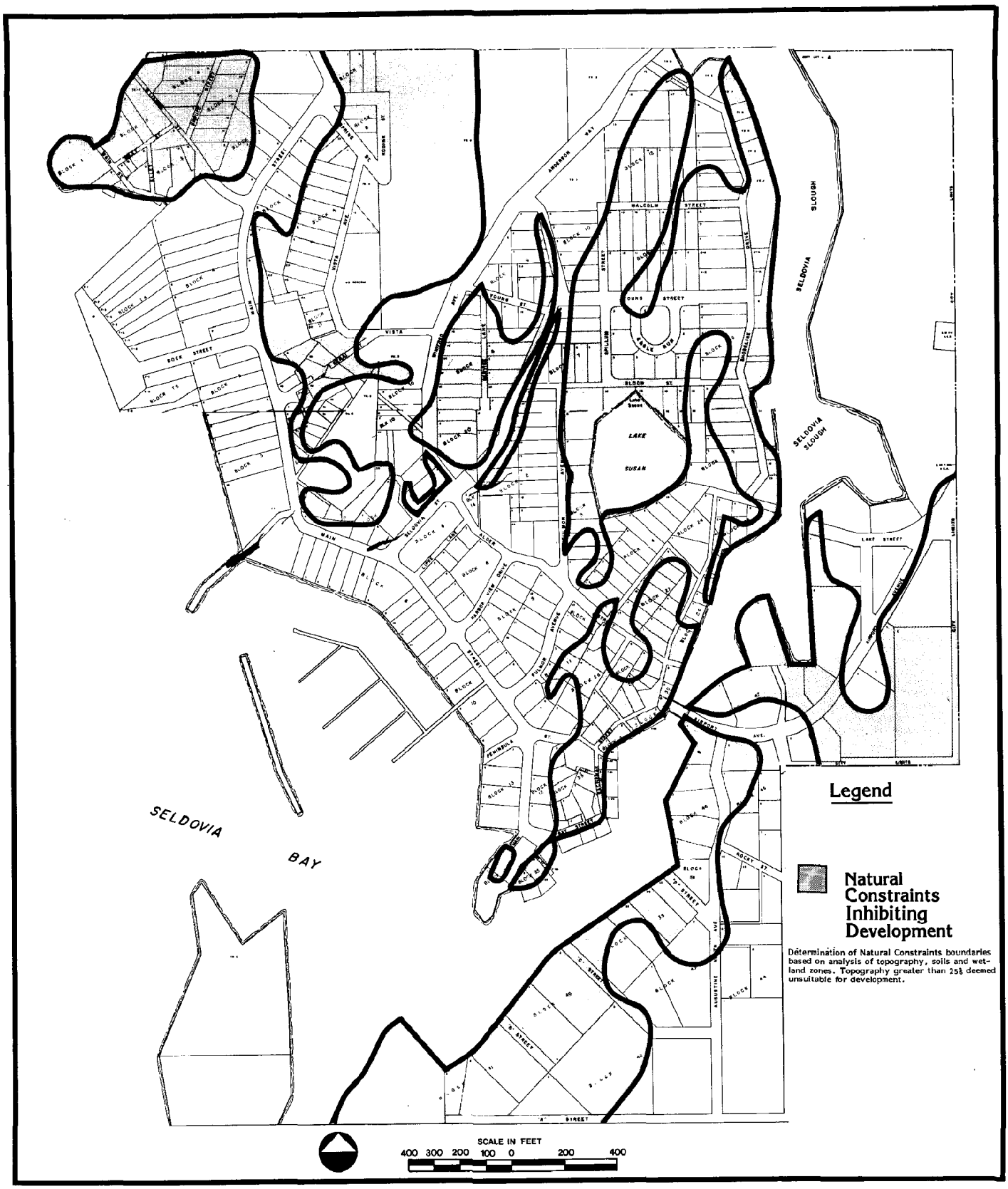

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Figure 5-6

Natural Constraints Inhibiting Development

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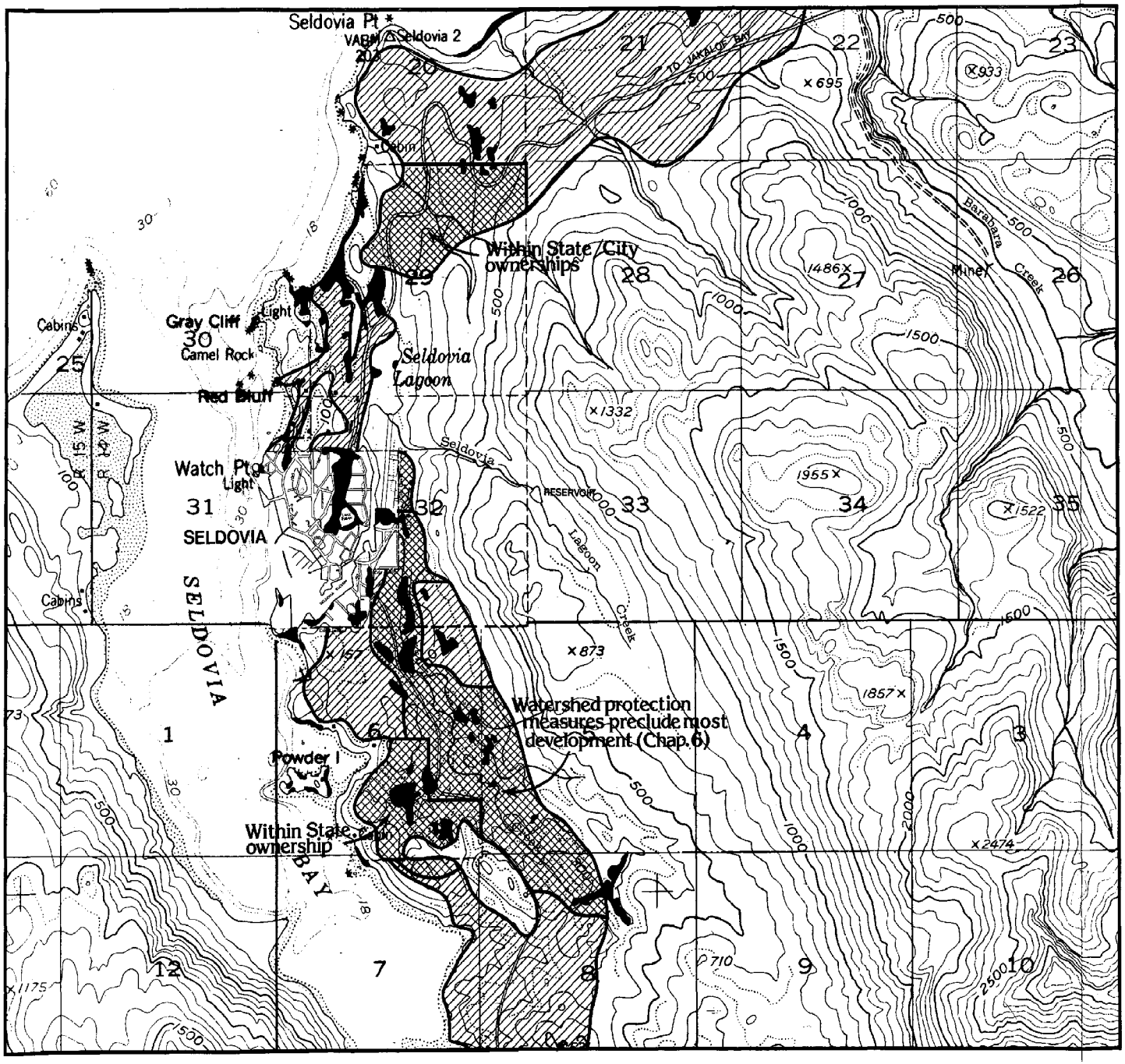

Figure 5-7

Development Constraints Outside City

Developable – based on land capability (slope, soils) and proximity (within 2000 ft.) to existing roadway.

AND

Areas potentially unavailable for development given consideration of land ownership or watershed protection restrictions.*

Poor to marginal soil and/or drainage characteristics.

* SEE "SELDOVIA WATERSHEDS" ORTHOPHOTO (SUPPLIED AS AN ADDENDUM TO THIS REPORT) FOR DESIGNATION OF 200 FOOT DEVELOPMENT BUFFER ADJACENT FISH CREEK.

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Consistency With Alaska Coastal Management Program

Although not a complete district program, this comprehensive plan addresses many of the items required of local districts (cities and boroughs) by the State under terms of the Alaska Coastal Management Act of 1977. Appendix C contains a listing of the requirements contained in the Alaska Administrative Code, the guidelines which are addressed in this plan and sections of this plan which best address the guidelines or standards.

Summary

Most new residential development within the next five years will likely occur on the northern edge of the City. Utilizing pockets of buildable lands, the natural constraints (steep slopes, poor soils) will create open spaces between clusters of homes, much the same as the existing development in the City. Lot size will vary but will likely be two acres per dwelling unit or more depending on the site conditions, unless both sewer and water service is extended to these areas.

Lands to the south of the City, in the lower part of the Fish Creek Watershed, will likely stay undeveloped until the Fish Creek Reservoir is either relocated or the City no longer depends on Fish Creek as a public water supply source (see Chapter 6). If this is accomplished, some of the lower watershed could be used for development (under certain restrictions, see Chapter 6). Due to the recently improved access to this area, development on the fringes of the watershed will likely occur in the near future.

As the City grows, annexation, expanded zoning, extension of services and/or special service districts become viable considerations if controlled and measured growth continue to be desired.

PLANNED SOLUTIONS

Based on the preceeding discussion, planned solutions center on two separate areas. These include minor revisions to the present zoning ordinances, and actions to encourage desirable development in suitable areas while discouraging undesirable development in poorly suited areas (both within and outside of the city limits). The planned actions emphasize cooperation between public agencies (such as the City and the Borough) and private parties (such as land developers) to develop workable solutions with minimal delays, unnecessary costs or needless environmental degradation.

GOAL: Well-defined order to the land use fabric of Seldovia; continued development of Seldovia preserving, maintaining and enhancing valuable, unique features of the community.

OBJECTIVE: Update land use and community development plans to reflect current conditions.

POLICY: Update land use and community development plans to reflect current conditions.

ACTION 21: The Alaska State Housing Authority (ASHA) Zoning Contract should be modified to reflect the Seldovia zoning ordinance to ease the enforcement of regulations of development. The procedures for modification are included in the ASHA ammendatory application for loans and grants for Seldovia, Alaska, Part I, August 24, 1970 and Part II, November 5, 1971.

ACTION 22: New residential development should be encouraged on buildable land first, within the city limits and then on lands to the north of the City (see Action on Watershed Protection Ordinance).

ACTION 23: The City can provide incentive to areas in the City where residential development is desired, such as reducing utility hook-up charges.

ACTION 24: Land developers shall be responsible for ensuring adequate access and utilities to the development to lessen the economic impact upon the City and the townspeople.

ACTION 25: The Residential - General (RG) and Waterfront - Commercial - Residential (WCR) districts should not include multi-family as a permitted use.

OBJECTIVE: Ensure location of most commercial uses adjacent to existing commercial areas.

POLICY: Commercial and industrial developments shall be limited to the land within the City presently zoned for these uses.

ACTION 26: Implement revised city zoning ordinance.

ACTION 27: Proponents of new commercial or industrial activities, proposed for outside the commercial core shall be subject to specific setbacks, buffers and height restrictions to lessen the activity's impact. The proponent shall also justify the location in terms of land use, traffic, circulation and utilities.

OBJECTIVE: Create strong physical links between waterfront and community through private and public development.

POLICY: Wherever possible, public access and amenities shall be included in any commercial development along the waterfront. These may include walkways, sitting areas, viewpoints, etc.

POLICY: The City shall ensure that street and road improvements emphasize linkage with waterfront and include provisions for pedestrians.

OBJECTIVE: Retain diversity and individuality in public and private development.

POLICY: The City shall establish a high density residential district to accommodate multi-family and mobile home park development. This district should allow a density of from 4 to 10 dwelling units per acre and require adequate parking, outdoor living space and buffers from adjacent uses.

OBJECTIVE: Preserve and enhance valuable, unique and historic features of Seldovia.

POLICY: The proponent of new developments shall ensure that the natural resources of the developed land or adjacent areas are not unduly impacted by their actions or resulting activities.

ACTION 28: The City will control development in Lower Fish Creek Watershed and restrict it in the Upper Fish Creek Watershed by a watershed protection ordinance (see Appendix B).

ACTION 29: The City will create an open space taxing district which would include unbuildable lands (steep, rocky slopes, wet, marsh lands) to preserve the natural elements and land forms which are a part of the character of Seldovia. The open space taxing district will be a voluntary agreement between the property owner and the City. No development or substantial modifications of these lands would be allowed; in exchange, the property owner's taxes on this portion of land would be reduced.

LAND USE PLAN

The land use plan (Figure 5-8) was developed to illustrate the land use goals, objectives, policies and actions. The plan embodies general designations of commercial, residential, industrial and public uses. The plan, unlike a zoning ordinance, shows the intent of the City towards land use in Seldovia. On the other hand, zoning is one of many legal and administrative devices by which city plans may be implemented.

Some of the confusion between a zoning ordinance and a land use plan stems from the fact that many cities have adopted zoning ordinances before embarking on full scale plan. An adopted zoning ordinance without a carefully worked out plan may:

- Tend to freeze development in the existing pattern.
- Produce wholly unexpected results, frequently of an undesirable nature.
- Soon be amended to such an extent, on behalf of individual property owners that no comprehensive pattern of development in the City can be recognized.

A land use plan gives expression to other than the materialistic aspirations of the people of the community. The plan should be:

- A balanced and attractive general design suited to present and projected needs.
- In scale with the population and economic prospects of the Community in scale with the community's financial resources.
- In keeping with community sentiments.

The land use plan generally follows the work done by the City on the zoning ordinance and graphically indicates the comprehensive planning effort. Many

of the concepts and land use modifications shown in the plan have been discussed in the previous text. In cases of apparent conflict between the zoning ordinance and the existing land use, the plan does not demand immediate changes. Differences between existing and planned uses dictate only that changes in use take place after the economic life of existing structures has expired and new structures are proposed.

Even though the HEA power plant is in an area suited for non-industrial uses, the plant site is designated for industrial use in view of the significant benefit bestowed on the community by the plant.

In the future, when individuals make application for zoning changes or variances, the Advisory Planning and Zoning Commission can refer to the land use plan to determine the overall use intent of the area in question, to assist in their decision. Land use decisions can be more easily made and justified when they are compatible with an overall plan.

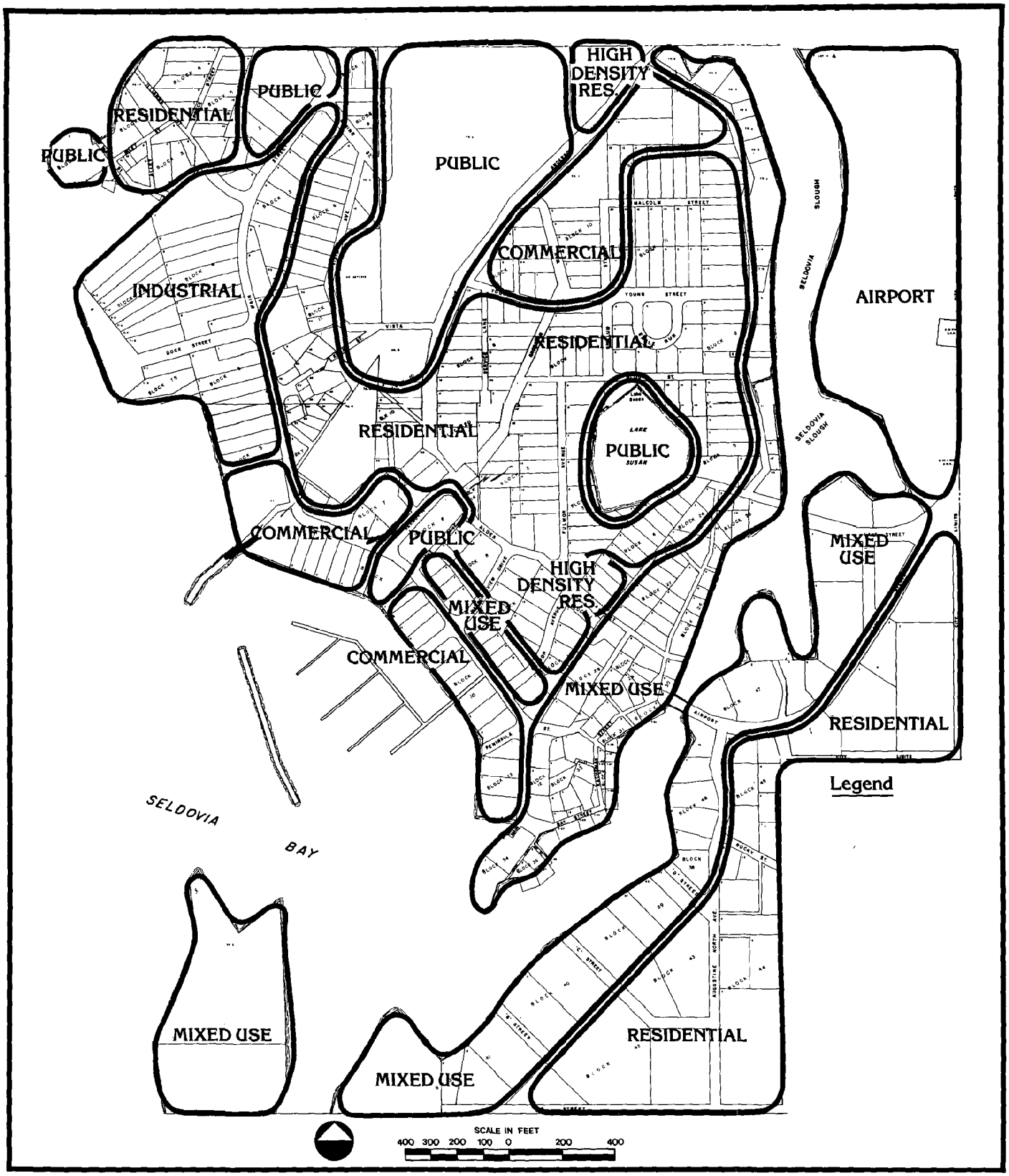

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Figure 5-8

Planned Land Use

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Chapter 6
Watershed Management

The City of Seldovia draws its water supply from two sources. The smaller of the two, the Upper Watershed, has an area of nearly 600 acres and feeds a five million gallon reservoir at an elevation of 600 feet above sea level. The larger, Fish Creek Watershed, is about 2450 acres in area and feeds a small reservoir and pump station across Seldovia Slough from the city.

Both watersheds, as well as much of the surrounding area, are underlain by igneous and metamorphic rock. Although this rock contains some groundwater in fractures and faults, its crystalline structure prevents percolation of any large quantities of water. Rather, the rainfall, after seeping through the soil and contacting the bedrock, runs off until it emerges as surface water feeding a stream. The annual average of 28 inches of precipitation, therefore largely runs off into the streams, yielding an average of up to nine cubic feet per second from the two watersheds.

The geology also influences the formation of soils in the watersheds. Because the rock does not break down rapidly, the soils appear to be made up largely of partially decomposed organic material from vegetation. In the planning area this soil type reaches its greatest extent in the valley bottoms through which the streams meander. On the steeper side slopes of the valleys the soil is thinner and, because of the slope, more likely to erode. The peaty soil of the valley bottoms appears to have poor structural characteristics, making these areas generally unsuitable as construction sites without considerable site preparation.

The Fish Creek Watershed is densely forested with Sitka spruce and western hemlock, with a thick understory of blueberry, salmonberry, devil's club and other shrubs. Along the streambed, openings in the tree canopy permit the growth of thickets of willow and Sitka alder. Poorly drained depressions scattered throughout the watershed, unable to support tree growth, are vegetated with grasses, rushes and sedges.

The Upper Watershed is less forested, due partly to its higher elevation and partly to the incomplete inland migration of Sitka spruce from the shoreline. While spruces partly cover the west slope of the watershed, the east slope is vegetated largely by alder and other high brush species. Alder and willow thickets follow the streambank here as well, but away from the stream the valley bottom is an open meadow of grasses, lupine, fireweed and yarrow, with scattered clumps of shrubs.

Neither stream is large; even Fish Creek, the larger of the two, seldom exceeds a foot in depth and eight feet in width. Nevertheless, they respond rapidly to rain, and can flow quite swiftly, eroding sediment from exposed banks and shifting gravel bars.

The average flows of about seven cubic feet per second (cfs) in Fish Creek and between one and two cfs in the Upper Reservoir Creek, *if evenly distributed and sufficiently stored*, could provide water enough for a city of nearly nine thousand people (including two seafood processing plants) at Seldovia's rate of water use.

Figure 6-1 shows the location and configuration of the two watersheds.

ISSUES, GOALS AND OBJECTIVES

Unfortunately the water supply is sometimes deficient in both quantity and quality. Freeze-up in the winter and dry spells in the summer lower the water supply to the reservoirs. These shortages are exacerbated when they coincide with peak water use by the seafood industry and inefficient water use in many homes.

Water quality is another problem. Although neither watershed is subject to a great deal of activity at present, the ownership patterns and one subdivision proposal in the Fish Creek Watershed point toward increased activity there by people, their pets and their vehicles, all of which can contaminate the water supply. Even with present levels of activity in the watershed, bacterial counts in the City's drinking water have sometimes been measured at high levels. As of early 1980, the water is not treated, but will soon be filtered and chlorinated; this process will probably successfully treat existing contaminaints, but may not be sufficient if additional contamination occurs.

An additional issue centers around possible approaches to watershed management. Many approaches adopted by other municipalities have proved so restrictive that land use in the watersheds has been severely curtailed. In the case of Seldovia, much of the land viewed as an area for community expansion lies in the Fish Creek watershed. There are concerns in the community that protection of the water supply and private use of land near the city are incompatible.

Recognizing these problems, three major issues were identified to be addressed in this watershed management plan:

ISSUES:

(1) Seldovia's water supply is sometimes deficient in both quantity and quality.

(2) Potential watershed management measures may be unduly restrictive.

(3) Public uses of watershed lands may conflict with private objectives (e.g., not all of the land in the Fish Creek Watershed is currently owned by the City).

To address these issues, this plan includes the following goal and supporting objectives:

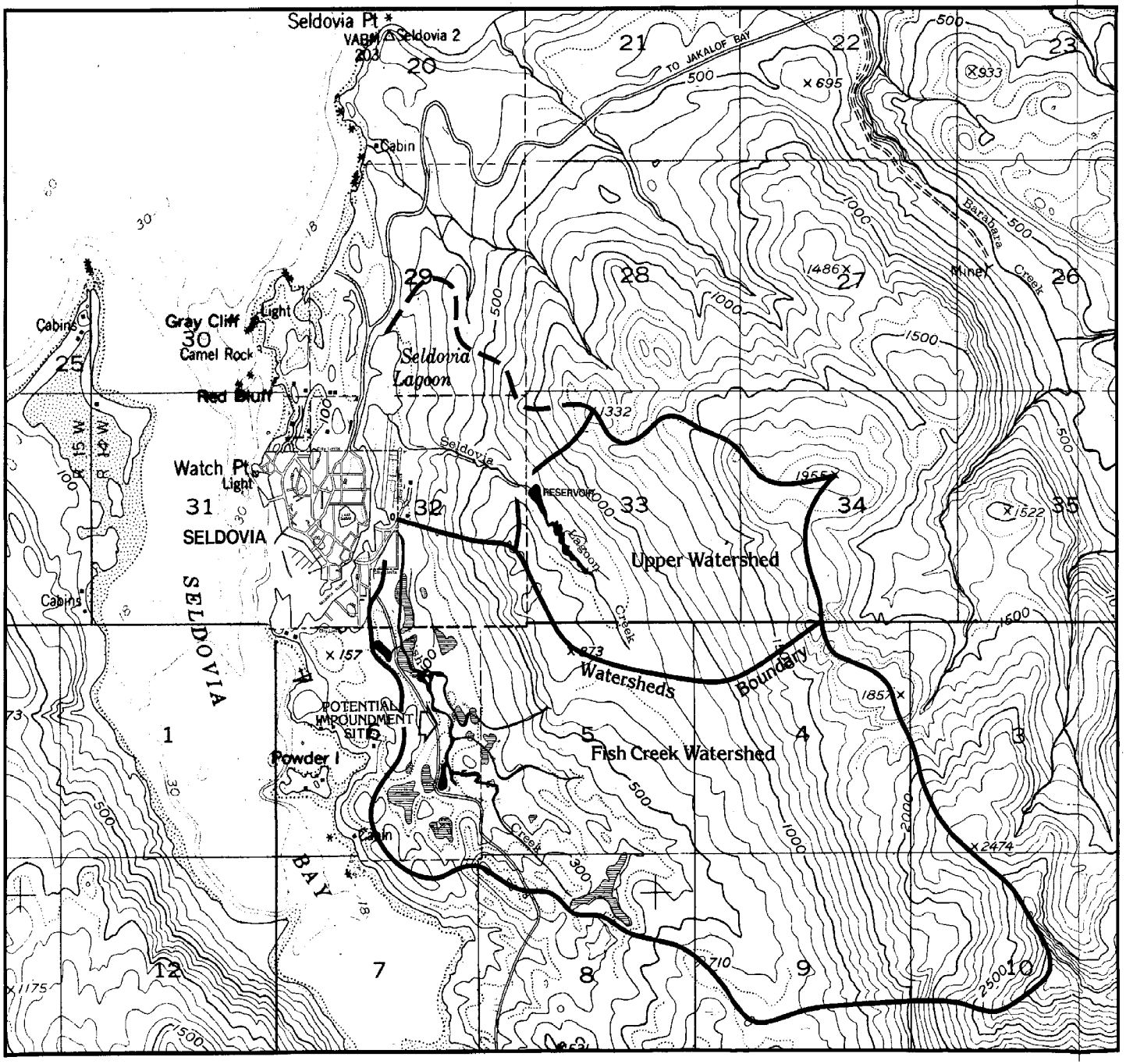

Figure 6-1

Seldovia Watersheds *

Creek

Includes those areas, in most cases adjacent to stream bed, which regularly receive high water streamflow or incidence of high (ground level) water table.

Wetland

Associated indirectly with streamflow.

*SEE "SELDOVIA WATERSHEDS" ORTHOPHOTO (SUPPLIED AS AN ADDENDUM TO THIS REPORT) FOR A MORE DETAILED REPRESENTATION OF FISH CREEK AS WELL AS DESIGNATION OF 100 FOOT DEVELOPMENT BUFFER.

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SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

GOAL:

Adequate quantity and quality of the City's water supplies without unnecessary restrictions on otherwise desirable development or use of private and public lands.

OBJECTIVES:

(1) Prevent deterioration in quality of City's existing water supply sources.

(2) Assure adequate quantity of water to serve existing and projected demand.

(3) Minimize conflict between private land development and watershed management needs.

POSSIBLE SOLUTIONS

Seldovia is faced with an already unsatisfactory water supply that, without prompt and adequate remedial action, is likely to become worse. There are a number of possible solutions, however, that address the problems of water quantity and water quality. These alternatives center around changing the present watershed alignment and source of water, and exercising more City control over the use of the watersheds.

Alternatives To Present Watershed Alignment

GROUNDWATER DEVELOPMENT

Although many towns of Seldovia's size derive their water from deep wells, the prospects for developing groundwater in Seldovia are not good. The area is underlain largely by crystalline rock which is nearly impermeable to water. Very little water can percolate into the rock, and very little water can be extracted from it. Recent test wells drilled in the area by the U.S. Geological Survey have yielded only small quantities of groundwater, insufficient for a municipal water supply.

DIVERSION FROM BARABARA CREEK OR SELDOVIA RIVER

Either of these streams would likely provide a reliable source of water of sufficient quantity and quality for a town several times the size of Seldovia. The cost of diversion and several miles of pipeline construction, however, may be massive, and would probably be difficult for the City to accomplish alone.

Should the City experience a great deal of population growth (such as might come from OCS oil drilling activity) and obtain additional funding, either Barabara Creek or the Seldovia River would be a likely prospect for a water supply. Continued coordination with the Borough, the State and the Seldovia Native Association, Inc. will be necessary to maintain the integrity of these watersheds for future use.

DIVERSION FROM FISH CREEK WATERSHED TO UPPER WATERSHED

The gentle drainage divide separating the head of the Upper Watershed from the Fish Creek Watershed appears to be a possible site for a water diversion project. Cutting through this divide would allow some water now flowing into Fish Creek to flow into the Upper Reservoir.

The advantage of such a diversion is that water which presently must be pumped from the Fish Creek Reservoir to the City would flow by gravity from the Upper Reservoir. In addition, if lower Fish Creek became too polluted to use as a water supply, the diverted water would probably remain safe in the Upper Reservoir.

The amount of water which could be diverted inexpensively would be small, however. Only four small tributaries, draining 165 acres of watershed, could be easily diverted toward the Upper Reservoir. Such a project would add a mean annual flow of only 1.03 cfm to the Upper Reservoir's creek, increasing it by only 25 percent above its present flow. It would also, of course, reduce the flow of Fish Creek by that amount as well. A further drawback to the project is that the water to be diverted originates at high elevations (mostly from over 1000 feet above sea level) and would likely be subject to the same winter freeze-ups which currently plague the Upper Watershed.

UPSTREAM IMPOUNDMENT OF FISH CREEK

The present location of the Fish Creek Reservoir near the creek's mouth allows the reservoir to receive all the water flowing into Fish Creek. It also makes the water supply vulnerable to sedimentation, bacterial contamination, or chemical pollution from anywhere in the watershed. If there is to be development in that watershed, it will likely be located in the lower portion near the city. An impoundment located above the developed area would help protect the water supply from activities which might pollute the lower reaches of the creek.

A likely location for such an impoundment is about 6,000 feet upstream from the present reservoir (see Figure 6-1). The largest tributary enters Fish Creek at this location, bringing the flow to near its maximum level. The site is upstream from the Backer Farm and would probably be safe from activities there if the farm is subdivided. This alternative might also allow the establishment of permanent salmon runs in the lower part of Fish Creek.

Although the streamflow at this site appears suitable, the topography and soils may not be. No engineering or cost estimates have been undertaken to determine whether an impoundment at this site is feasible. This alternative would also have the disadvantage of requiring the City to abandon its recently constructed reservoir at the mouth of Fish Creek.

Upstream impoundment, if feasible, would reduce or eliminate costs of pumping water from the present reservoir, and could lessen or obviate the need for a storage tank. However, its feasibility should be evaluated in greater detail prior to committing funds for either reservoir relocation or storage tank construction.

RAISING OR RELOCATING THE UPPER RESERVOIR DAM

Because the main problems with the Upper Reservoir center around water quantity rather than quality, it might be possible to increase the reservoir's storage capacity by raising the level of the dam, or by relocating the dam downstream.

Because the dam is built in a canyon, with the sides continuing to rise gradually to the east and west, raising the level of the dam even a few feet would very likely add considerably to the reservoir's storage capacity. Increasing the depth would also increase the effective winter storage, or the amount of water which remains unfrozen and available for use in the winter. No engineering analyses have been conducted to determine whether the structure of the dam or underlying soil structure would be suitable for such additions, however.

Relocating the dam downstream is another possibility that could improve the total storage capacity, and the effective winter storage. A downstream location would have a lower elevation and would be subject to less freezing weather. Such a location would also draw water from a larger area, and would therefore receive more streamflow. Depending on the location, it would likely have better access from Seldovia, which would facilitate maintenance. As with the previous alternative, relocating the dam would require a good deal of engineering in advance, and the construction cost would be considerable.

WATERSHED MANAGEMENT ALTERNATIVES

Regardless of which alternative in watershed alignment Seldovia uses, protecting the water supply will require that the City, Borough and State take a more active stance in managing the watershed(s). The following alternatives are based on the need for a safe, reliable water supply. They vary, however, in the approach to maintain this. Where some alternatives protect the water supply at the source, others allow some pollution of the source, but require treatment before the water can be used.

Open Watershed

This alternative would permit residential development, roads, etc., with State-required setbacks from the stream. There would be no restrictions on recreational activities in the watershed. Logging would be permitted with controls to protect the stream corridor.

Water quality in the stream would likely deteriorate under this alternative. People and their pets, vehicles and their exhaust and oil leaks, and storm-water runoff from roofs, driveways and roads would contaminate the stream with bacteria, sediment and unsafe chemicals.

To maintain the water supply, the City would have to install and operate a full water treatment plant, utilizing chemical floculation, fine filtration and chlorination. Such a facility would cost several million dollars to construct.

Open Watershed With Controls

The sophistication and cost of the water treatment could be reduced if the uses of the watershed are subject to some controls. In this alternative, residential development and associated roads would be permitted with State-required setbacks from the stream and mandatory city sewer hookups. The setbacks would be reinforced with fencing installed in areas along the stream where people would be likely to walk or drive. Recreational and other activities would be permitted but only at a distance from the stream. Logging would also be permitted with controls and setbacks to protect the stream.

Because the access to the stream would be limited, the pollution of the water supply would probably be less than in an open watershed. In this alternative, the water could probably be safely treated with a chlorination and limited filtration system such as the City plans to install this year.

Restricted Watershed

Development would be less extensive and stream access more restricted in this alternative. The upper reaches of the watershed would be available for limited recreational use (such as hiking, berry-picking, etc., but not fishing or overnight camping). Where development is permitted it would be required to meet a strict set of performance standards to protect the water quality. City sewers would be required (most of the costs paid for by the developer) and all storm drainage from houses, yards and roads would be diverted out of the watershed or downstream from the reservoir. Access to the stream and reservoir would be restricted by fencing, with trespassers subject to mandatory fines. Logging would be permitted outside the stream corridor with controls to limit sedimentation into the stream.

Because this alternative would provide a high degree of protection to the water supply, the treatment needs would be reduced and a simple chlorination system would probably be adequate.

Closed Watershed

This alternative would permit no access to the watershed except for carefully controlled logging at some distance from the stream. Fencing and/or other enforcement would be necessary to restrict the access.

Even with a closed watershed and little or no access, a chlorination system would be needed to control natural outbreaks of bacteria in the water supply.

WATERSHED MANAGEMENT AUTHORITY

Seldovia has available several viable methods that it can use to implement one or more of the above alternatives. In addition, the Borough, the State and even the Federal government can provide legal and administrative authority to assist the City in its watershed management efforts.

City And Borough Regulatory Authority

Inside the city limits, Seldovia has most of the powers of an Alaskan First Class city, subject to several important exceptions. First class powers allow, for example, the City to pass an ordinance regulating building or electrical wiring practices, require individuals to apply for permits, issue, condition or deny permits, and assesss civil or criminal penalties upon individuals who fail to comply. An important exception to the City's powers are the areawide planning, platting and zoning powers held by the Kenai Peninsula Borough. Under Alaskan law, boroughs have authority to plan, plat and zone all areas, both incorporated and unincorporated, of the Borough. Under terms of the Seldovia district zoning ordinance, Seldovia has been accorded responsibility for administrating the zoning ordinance within its boundaries. Decisions on zone changes and zoning outside of Seldovia's City limits, still are made by the Borough.

Most of Seldovia's watershed area is outside the city limits, however, and, were it not for one provision of the Alaska Statutes, the City might have little control over its watershed. However, State Law, in AS 29.48.037, gives cities broad authority over land in their watershed, even if outside of city limits. Seldovia could, for instance, pass an ordinance to protect its watershed; that ordinance would carry the force of law both inside and outside the city limits. Depending on the form of the controls (for example, building permits versus zoning), Borough approval would also be needed before Seldovia could enforce such an ordinance.

As an alternative to this extraterritorial jurisdiction, the City can consider annexing the land in the watersheds. The pros and cons of annexation are discussed further in Chapter 10. While the City might choose to provide some municipal services and utilities to residents of the area, it has the option, through a watershed management ordinance, to prohibit any residential construction in the watershed, and thereby limit the number of persons who can demand city services. Again, legal clarification and/or Borough concurrence would be needed prior to implementing such controls.

Of course, if the City passes an ordinance, it is responsible to enforce that ordinance. The limited funding and manpower available to the City must be considered before it adopts restrictive measures. There are fortunately several other ways for the City to ensure some protection of its watersheds without using its own regulatory authority. These methods include proprietary authority and coordination with State and Federal agencies to take advantage of their authorities.

City Proprietary Authority

One way for Seldovia to control the land in its watershed without regulating private land is to own the land itself.

With the exception of the reservoirs, the City does not own the land in its watersheds. Most of the land in the Fish Creek Watershed is owned by private individuals, developers, and the Seldovia Native Association
Upper Watershed, land ownership lies largely with the State and the SNA

(See Figure 5-2, Chapter 5). Although the City has limited funds with which to purchase these lands, it might, through arrangement with SNA under the provisions of Section 14(c)(3) of the Alaska Native Claims Settlement Act, obtain title to the most critical areas of the watershed. This possibility is discussed further, with illustrative maps, in Chapter 10.

State Authority

The Alaska Department of Environmental Conservation (DEC) has two roles which relate to management of Seldovia's watersheds. First, it is responsible for monitoring and regulating water quality (for drinking water as well as other uses). In that capacity DEC can prohibit activities which cause, or are likely to cause, the water quality to deteriorate below its published standards (Table 6-1).

DEC also has the authority to approve or disapprove of sewage disposal systems. Any septic tanks or other sewage collection and disposal systems proposed for the watersheds must meet DEC guidelines. These guidelines are currently being revised, but it appears that they will prohibit any sewage disposal system, including municipal sewer connections, within 200 feet of a public water supply. (18 AAC 72.020(d) and 18 AAC 80.020(d), Table A).

TABLE 6-1
SELECTED PARAMETERS OF STATE OF ALASKA WATER QUALITY CRITERIA
FOR DRINKING WATER SUPPLY
(AS APPLIED TO SELDOVIA'S DRINKING WATER)

PARAMETER	LEVEL
Fecal Coliform Bacteria (FC)	Mean shall not exceed 20FC/100ml. No more than 10% of the samples shall exceed 40FC/100ml.
Dissolved Gas	Dissolved oxygen shall be greater than 4.0mg/1.
pH	6.0 to 8.5.
Turbidity	Shall not exceed 5 NTU (Nephelometric Turbidity Units). When natural turbidity is 50 NTU or less; no more than 10% increase in turbidity. When natural condition exceeds 50 NTU, not to exceed a maximum increase of 25 NTU.
Temperature	Shall not exceed 15°C.

Source: 18 AAC 70.020.(b)

Any development proposed within the watersheds must, therefore, meet DEC's standards for sewage disposal, and must also satisfy DEC that it will not harm the water supply through any means besides sewage disposal, such as stormwater runoff, pets, etc.

If, after revision, the DEC guidelines do not appear strong enough to protect Seldovia's water supplies, there is another avenue available to the City to have DEC enforce stronger standards. The Kenai Peninsula Borough is in the process of developing a Coastal Management Program (CMP). The Alaska Coastal Management Act encourages State agencies to be consistent in their permitting activities with approved local CMP's. Should the Borough's CMP, when adopted, specify that these watersheds remain undeveloped, DEC would probably be obliged to deny permits for development activities in the watersheds.

One method to specify uses for a watershed in a CMP is to designate it an Area Meriting Special Attention (AMSA). As defined in AS 46.35.210(1) an AMSA is an area which "is sensitive to change or alteration and which, because... a claim on the resources...would preclude subsequent use..." Because inappropriate development in a watershed could preclude use of that water, the City's watersheds, particularly Fish Creek Watershed, certainly qualify as an AMSA.

Further coordination with the Borough would be necessary to ensure that the watershed is adequately addressed in the Borough's CMP.

Federal Authority

The federal law which could most likely assist in the enforcement of the watershed plan for Seldovia is the Federal Water Pollution Control Act and amendments of 1972. Section 404 of that act requires U.S. Army Corps of Enginner's permission for "discharge of dredged or fill materials into waters of the United States." That section has been construed broadly by both Federal courts and the Corps. The term "waters of the United States" includes not only lakes, streams and marine waters, but also wetlands associated with those waters. Thus, any individual wishing to place fill in a wetland to build a house or any other structure must first secure a "Section 404" permit from the Corps.

While this law certainly does not apply to the entire area of both watersheds, it probably does apply to certain areas characterized by braided or sinuous stream channels and vegetated with wetland plants such as willows, sedges and rushes. In particular, much of the land bordering Fish Creek in Sections 5 and 6 is wetland as is much of the open marshy land nearby, whether or not a direct connection with the creek can be easily observed. The Anchorage District of the Corps of Engineers periodically sends inspectors to observe proposed building sites to determine whether they are wetlands. Upon request from the City of Seldovia, the Corps might give an official evaluation of the likelihood of their issuing a "Section 404" permit for much of the critical areas near the stream in both watersheds in advance of any permit applications.

Among the criteria the Corps uses in evaluating permit applications is whether the wetlands "perform functions important to the public interest [including purifying water] through natural filtration processes..." (42 Federal Register, 37136, 1978).

The Corps might therefore reject a permit application if it appeared that the results of that project might impair the ability of the wetlands to purify water. This possibility appears even more likely in light of the review

function of the U.S. Environmental Protection Agency (EPA). Before issuing a 404 permit, the Corps receives review comments from a number of agencies, including the EPA. The EPA considers among its review criteria whether a project will affect municipal water supplies.

Should the Corps, in spite of the City's need for clean water, issue permits for filling with subsequent construction in Fish Creek's wetlands, the City could, with assistance from the Alaska Office of Coastal Management, pursue the federal consistency requirements of the Coastal Zone Management Act. Just as State agencies must be consistent with the local coastal management programs, the federal agencies must also use their permitting authority in a manner consistent with Alaska's approved coastal zone management program. Again, this course will require that the City coordinate now with the Borough in the development of the Borough's program.

PLANNED SOLUTIONS

At this time, with the City's present population and funding levels, the best solution to the problems of watershed management appears to lie in a phased approach, combining several of the alternatives over the short, intermediate and long-term, as the needs present themselves and opportunities arise. This phased approach can be summarized as protection, improvement and replacement.

Short-Term Program

In the short-term, the next several years, the City must rely on protection of its existing sources. Even if the funds should appear today for large-scale water resource development it would likely be several years before any such project could become operational. Seldovia must therefore continue to rely on the Upper Reservoir when it has sufficient volume to meet the City's demands as a gravity flow system. During times of freeze-up, low flow, and algae blooms in the Upper Reservoir, Fish Creek must be called into service.

It is imperative that the integrity of both watersheds be protected or the quality of the water may not be suitable for drinking. The State ownership and limited access in the Upper Watershed appear to be effective protection there and will likely remain so. In Fish Creek Watershed, adequate protection will require the combined efforts of the City, Borough and State agencies.

First, in anticipation of using at least the upstream reaches of Fish Creek for a number of years, the City, with its own authority and assistance from the Borough, must prevent any development or other major alteration (mining, excavation, etc.) above the major tributary entering Fish Creek in the southeast quarter of Section 6. In addition, to protect the lower reaches of the creek in the short-term, the City must prevent development within at least 200 feet of the creek along its entire course. The City can be backed up on this action by the DEC which does not permit septic tanks "or other potential sources of pollutants" within 200 feet of a public water source.

Outside the 200 foot buffer zone, development may be permitted, but only if accompanied by connection to the City sewer system. The high water table and frequently saturated soils in this area suggest that septic systems would not function well, and might contaminate the creek. Stormwater runoff from houses and yards is also a source of pollution and must be collected and diverted to downstream of the reservoir.

Whether the existing road, with its present level of traffic, also contaminates the water supply has not been determined, but the probability is high. Heavy metals and petroleum hydrocarbons frequently accompany runoff from roads. The DEC should expand its monitoring of the City's water to determine whether these pollutants are present in the creek. If they violate DEC's standards (in 18 AAC 70.020), traffic along the road is the most likely source, and must be limited until runoff from the road can be diverted.

Although diversion of stormwater runoff from private homes and roads can be an expensive undertaking, most of the pipe can be laid at the time of sewer extensions, thus nearly halving the cost of excavation. Although the pipe for the runoff may be laid parallel to that for sanitary sewers, the runoff itself should not be channelled into the sanitary sewer lines, but should remain separate. The cost of installing sanitary and storm sewer lines along the 4,500 feet of road in the area in which development may be permitted will be a minimum of $1,000,000. (This figure does not include individual home connections or the cost of grading the road to direct the runoff to a diversion channel).

To protect the quality of the water in the reservoirs, it will be necessary to install fencing around both reservoirs. Because of the ease of access, first priority for this project should be given to the Fish Creek Reservoir.

Finally, because the water quality is not adequate even with the present level of activity in the watershed, the City's plans for a chlorination and filtration plant must be carried through to completion.

The short-term program for watershed management, to be implemented over perhaps the next five years, is as follows:

OBJECTIVE: Prevent deterioration in quality of City's existing water supply sources.

POLICY: The City shall protect its existing water sources as long as they are used, and shall coordinate its efforts with other agencies.

ACTION 30: City will adopt with Borough concurrence, a watershed management ordinance (Appendix C).

ACTION 31: No new residential or commercial development will be permitted within 200 feet of any permanent or intermittent stream or wetland in the city watersheds or anywhere in the Fish Creek Watershed upstream from, and including, the southeast quarter of Section 6. (Enforced by City and Borough through Borough planning, platting and zoning authority or the City's extraterritorial jurisdiction authorized by AS 29.48.037).

ACTION 32: Any new residential or commercial development in the City watersheds shall be connected to City sewers at owner's expense. All stormwater runoff from roofs, roads and yards shall be collected and diverted to a point downstream from the reservoir. (Enforced by City, Borough and DEC).

ACTION 33: The City will request Borough to implement watershed management through Borough Coastal Management Program.

ACTION 34: The City will complete purchases of reservoir lands, will install fencing around and prohibit public access to both reservoirs.

ACTION 35: The City will install, maintain and the DEC will monitor the effectiveness of a water filtration and chlorination plant.

ACTION 36: The Alaska Department of Environmental Conservation will regularly monitor Seldovia's drinking water, with additional analysis for heavy metals, oil and grease. Should these constituents appear in violation of DEC standards, the City and Seldovia Native Association, Inc. will install a gate and limit traffic on the road paralleling Fish Creek until all stormwater runoff from the road can be diverted to a point downstream from the reservoir.

OBJECTIVE: Minimize conflict between private land development and watershed management needs.

POLICY: The City shall avoid unnecessary regulation of private interests.

ACTION 37: City shall adopt, with Borough concurrence, a watershed management ordinance based on draft ordinance shown in Appencix C.

ACTION 38: The City shall purchase, through negotiation or condemnation, lands underlying and immediately surrounding reservoir to provide a buffer from adjoining uses and allow future expansion.

Intermediate-Term Program

In the intermediate-term, the City can improve upon its present water supplies, and then can relax some of the use restrictions in the Fish Creek Watershed. Several water projects have been discussed by local citizens and officials, and were reviewed as possible solutions earlier in this chapter. While none of the intermediate and short-term solutions can increase the water available in the watershed, they might, by diverting it, deepening it, or collecting it at a different location, improve upon the water quality or availability.

One of the main advantages to this approach is that a good deal of land near the lower reaches of Fish Creek could be opened for development. While the area will likely experience problems with high water table and soil foundation strength, these problems will not affect the City's drinking water.

The intermediate term watershed management strategy, to be implemented over a period of five to twenty or more years will be as follows:

OBJECTIVE: Assure adequate quantity of water to serve existing and projected demand.

POLICY: The City shall improve upon the water collection and storage systems in its present watersheds.

ACTION 39: The City will evaluate the feasibility, from points, of view of engineering, economics and environmental values, of:
(a) Raising the dam to deepen the Upper Reservoir.
(b) Relocating the Upper Reservoir downstream.
(c) Diverting water from the upper reaches of the Fish Creek Watershed to the Upper Watershed.
(d) Relocating the Fish Creek Reservoir upstream.

ACTION 40: The City will investigate sources, obtain funding for and complete the most feasible of the projects.

ACTION 41: After such a project is constructed, if the lower Fish Creek Reservoir is no longer needed, the City will repeal the part of the ordinance implementing Action for the area of the watershed no longer supplying water to the City.

Long-Term Program

In the long-term, the City's water needs are uncertain. While one or more of the intermediate term projects should see the City through at least twenty years, Seldovia's population, as noted in Chapter 3 might range from as few as 536 to as many as 1563 persons in the year 2000 depending on uncertain variables such as fisheries and oil development.

If the population should grow rapidly, and the demand for water exceeds the capacity of the two streams now in use, it would be necessary to explore and develop other sources. The two most likely are Barabara Creek and the Seldovia River. Neither of these projects need be initiated now, but several years lead time will certainly be required before such a project is on-line.

In the meantime, it would be desirable for the City to apply to the Alaska Department of Natural Resources for water rights to one or both of these streams. Then, as soon as it appears that Seldovia will undergo a major influx of population or other increase in water use, the City can begin feasibility and engineering analyses and funding applications to get the necessary project underway.

It must be emphasized that if the City uses a new watershed as its water supply, the same protective measures will be needed to ensure the integrity of the water supply. The City must begin planning with the Borough soon to ensure that these watersheds are not contaminated before they are even used.

The long-term program for watershed management, then is as follows:

OBJECTIVE: Assure adequate quantity and quality of water to serve existing and projected demand.

POLICY: The City shall seek to secure larger water supplies for future use.

ACTION 42: The City Manager, with authorization from Council, will initiate applications for water rights for Barabara Creek and Seldovia River.

ACTION 43: The City will extend its watershed ordinance to these watersheds, with Borough concurrence, to protect them when it has secured water rights.

ACTION 44: If population trends begin to follow those of the "intermediate" or "high" scenario (Chapter 3) the City, through its engineers, will begin feasibility and engineering analyses and apply for funding to develop a new reservoir and water transmission line at Barabara Creek or the Seldovia River.

Chapter 7
Social Services

Of the many services which Seldovia has organized for itself, social services are unquestionably among the most important. This chapter discusses a range of social services provided in Seldovia, analyzing problems and outlining step-by-step programs to achieve community objectives. For purposes of clarity, this chapter is divided into three separate sections, outlining health related services, education and recreation. Each section describes the background and trends, goals and objectives, possible solutions and implementation of recommended solutions.

HEALTH RELATED SERVICES

A major priority of many Seldovians is the provision of adequate health related services. As early as 1935, the City and community groups had established the first clinic building and hospital using only local resources. Through many years since, the community has maintained a high standard of local health services. This section addresses the subject of community-based health and health-related services, discussing how Seldovia can maintain and improve its existing standard of services without imposing undue financial burdens on the City, providers, users or other community groups. The section is concluded with policies and actions designed to address each of the community's planned goals and objectives.

Background And Trends

The development of health-related services in Seldovia and the nearby communities of Port Graham and English Bay has been hampered in the past by a combination of factors. The small resident populations of the communities have not provided a consumer base large enough to support private physicians. The relatively low economic base of the communities has also discouraged health care providers. The geographic location of the communities has allowed them to be served by the regional health providers at a low level of service. Infrequent visits by the dentist, eye specialist, and Native Health Service professional do not meet the needs of the community.

The projections for population growth and economic growth in the Seldovia area indicate that both population and the regional economic base could increase substantially in the next five to ten years and beyond. The ranges in the projections reflect the uncertainties in the future of oil exploration and fisheries harvests. It is clear, however, that health services planning in Seldovia must incorporate the demands for services that will be associated with population and economic growth.

The recent construction of the Seldovia Health Clinic has contributed significantly to the improved level of health care in the community and has presented an improved opportunity to maintain full-time resident physician services. Outside funding of the construction of the clinic and purchase of new X-ray equipment has provided the needed capital base for health services in the community. The equipment for the clinic, donated by the Seldovia Hospital Guild, has similarly relieved the financial burden to the City of establishing the clinic and attracting a full-time physician.

ROLE OF SELDOVIA HEALTH CLINIC

Several basic questions related to the Seldovia Health Clinic must be addressed by the clinic board and the City. These questions are crucial to the community's desire and ability to retain the services of a full-time physician in the community. There is no question that Seldovia has placed a high priority on having a full-time physician to provide high-quality health care services. However, the relationship between the Clinic and the physician must be clarified in a policy decision that will affect the City's financial role in the operation of the Clinic.

It is assumed that the existing health service payment system will continue in the future. That is, patients of the physician will be charged at rates determined by the physician and will pay the physician either directly or by means of governmental or third-party payers (insurance companies). The physician will, in turn, pay the City of Seldovia to lease the clinic office and medical facilities. This system is a standard arrangement used by the majority of clinics or medical office facilities.

The central issue that will determine the form of the physician-clinic lease arrangement is the philosophy of the lease. The City can choose to either balance its expenses related to the capital expenditures and operation of the Clinic with revenues obtained from the Clinic, including the lease income from the physician, or can partially assure adequate income to the physician by setting low lease payments. Any financial policy adopted by the City will directly affect the cost of health services, what segments of the community pay for the services, and the risks that the community will lose its resident physician.

DEVELOPMENT OF BETTER HEALTH SERVICES

The primary determinant of the level of health services provided to a community is the ability of the community (or region) to pay for the services. In general, a certain minimal level of service will be provided by Federal, State and Borough public agencies, and private for-profit and non-profit organizations. These services, however, do not provide the desired level of service. The professionals are not available with the desired frequency, the services provided are not intensive enough to meet the needs of patients, and local treatment is not always available to residents without loss of privacy. Alcoholism treatment and programs to reduce drug abuse are not effectively meeting the needs of the community. If possible, expanded services should be obtained to provide better treatment programs that will improve the mental and physical health status of the community. To effectively address this problem, increased funding for health services must be generated.

Need For A Community Youth Center

The community has expressed its desire for construction of a community youth center. Such a youth center could provide many benefits to the youth of Seldovia. Development of a center could result in reduced drug abuse or alcoholism rates in the community by providing a focus for organized or spontaneous recreational activities that can be integrated into the community-wide system of social and health services. The community youth center activities could provide healthier, more attractive alternatives to drinking or using drugs.

It is very likely that funding could be obtained to construct a community youth center. A problem arises in funding the operating and equipment expense for a center. City revenues or user revenues may be used to cover the operating expenses. These expenses would include utilities, new and replacement equipment and supplies, administrative and maintenance staff salaries, and costs of special programs or activities. The current financial and budgeting problems faced by the City indicate that other sources of revenues would be needed to defray the operating expenses of a youth center.

Issues, Goals And Objectives

Several major problems addressing the provision of health-related services have been identified:

(1) Definition of the role of the Seldovia Health Clinic;

(2) Development of better social services; and

(3) Need for a community youth center.

Goals and objectives include:

GOAL: Adequate, affordable and accessible health-related services for all residents.

OBJECTIVES:

(1) Establish and maintain high quality medical services with adequate operational funding, management and local participation in medical services.

(2) Improve community-based alcohol and drug treatment programs to lower alcoholism and drug abuse rates.

(3) Establish a multipurpose youth and community center in Seldovia to provide additional social and recreational opportunities for Seldovia youths, and alternatives to drugs and alcoholism.

These problems will be analyzed below and potential solutions will be addressed in the following sections.

Possible Solutions

For each of the issues and problems identified above, one or more possible approaches may be envisioned which address the problem and can achieve the objectives. Possible solutions are discussed below.

ROLE OF SELDOVIA CLINIC

In essence, the problem of the physician-clinic relationship and retaining the services of a full-time physician reduces to a question of who will pay for the health care services. Two basic approaches are possible:

A. Partially guarantee physician a reasonable income.

B. Balance City revenues and expenses from the clinic.

The implications of each of these possible solutions will be discussed.

Partially Guaranteed Physician Income

Under this approach an equitable income would be negotiated with the physician or offered to a potential resident physician. The physician would establish charges for clinic services that fall within reimbursement guidelines for Medicaid/Medicare or other payers and which would be comparable to charges in other comparable communities. Clinic revenues minus clinic expenses (which include lease payments) would be the physician income. If the combination of service charges and the utilization of services by the community is such that physician income is equal to or greater than the guaranteed physician income, then no City subsidy (in services or cash) would be required. If utilization of services is so low that revenues minus expenses is less than the guaranteed physician income, then the City may not balance its clinic revenues and expenses.

The risk involved in the alternative is that service charges that are too low may benefit the users of the facility but would result in a City subsidy which would spread the costs over the entire community. Also, physician income may not be sufficient to guarantee presence of a resident physician. However, it is possible that the required physician income would be generated when lease payments are large enough to balance the City's clinic revenues and expenses. To some extent, the likelihood of a subsidy being needed would be difficult to predict.

Balance Revenues And Expenses

Under the approach, the lease payments by the physician for use of the clinic must cover the clinic expenses paid by the City. City revenues will balance expenses; there would be no City subsidy to the physician. Once again, physician income will be clinic revenues minus clinic expenses. However, the physician income will depend upon the rates charged for services and the utilization of those services. If rates are reasonable, and utilization is low, then physician income will be low. If utilization is high, then physician income will be high.

Several risks are involved in this alternative. The first risk is that low utilization of physician/clinic services may result in physician income so

low that the physician will leave. Rates could be increased to generate more income, but at some level rates would be high enough to cause further reductions in utilization of services. And further increases in rates would only result in even lower utilization. This presents the second risk; that high cost of services will discourage residents of the community from seeking needed medical services and thereby reduce the health status of the community.

IMPROVED SOCIAL AND HEALTH SERVICES

Several approaches may be taken to improve the quality and amount of social and health services available to the citizens of Seldovia and neighboring communities.

Continue Regional (Consortium) Service Planning

The communities in the region can continue to seek funding for a better integrated and more comprehensive system of social services that will provide improved programs to the communities.

Better Resource Utilization

The community can attempt to improve the education and skills of Community Health Representatives and utilize its 11 trained Emergency Medical Technicians (EMT's).

Other Reimbursement Mechanisms

The community can investigate the possibilities for additional sources of reimbursement, particularly in the treatment of alcoholism. The establishment of a regional treatment program may generate not only capital funding to initiate a program but may also make patients eligible for governmental or insurance payment of medical treatment costs.

Improve Prevention Programs

The community can intensify efforts to prevent the need for health services by improving educational programs aimed at prevention of drug abuse, alcoholism, pediatric illness, and other illness.

Community Center

The solution to providing funds for operating expenses and equipment for a community youth center is not simple. The required revenues could be generated by a user charge for the facility or by means of coin-operated game machines. Charging users could restrict the usage of the facility or equipment by those persons who most need the facility. General revenues from the City could be used, but in the absence of balancing income to the City, the existing budgeting problem would be worsened.

Another approach is to minimize personnel costs by utilizing volunteers to run the center or maintain the facility. CETA funding may also be available for maintenance staff, as in the Seldovia Clinic.

Planned Solutions

The following section outlines planned solutions, including policies and actions actions, to achieve goals and objectives for health-related services.

GOAL: Adequate, affordable and accessible health services for all residents.

OBJECTIVE: Establish and maintain high quality medical services, with adequate operational funding, management and local participation in medical services.

It is recommended that approach B (page 7-4) be implemented initially. Given the high priority placed on attractiveness of the facility, the benefits of reliable physician services in the community can probably be achieved without direct financial subsidy; this can also be supplemented by low lease rates, contributed services and outside grants. If the charges for patient services are set at reasonable and comparable levels, there should be minimal need for subsidy. The clinic board should review charges for services to ensure that they are not set too low or too high.

POLICY: Rates and charges shall be set for the Seldovia Clinic to ensure that City revenues and expenses are balanced. Beyond this objective, lease rates, contributed services and outside funding may be used to improve physician income if needed. Clinic rates and charges shall take into account fair and equitable charges by providers to users.

ACTION 45: Conduct survey of physician incomes and charges for services at comparable locations or communities.

ACTION 46: Negotiate reasonable target salary with physician, taking into account cost of living and other variables (annually).

ACTION 47: Review projected utilization of services, based on previous data and population projections (annually).

ACTION 48: Review charges for services at clinic to ensure reasonableness, compliance with reimbursement guidelines of insurers, and ability of non-covered or uninsured patients to pay (annually).

ACTION 49: Project physician income and consider possible need for lower lease rates, contributed services and outside funding (annually).

ACTION 50: Establish incentive program for clinic to control expenses and thereby increase physician income without increasing cost to patients (annually).

OBJECTIVE: Improve community-based alcohol and drug treatment programs to lower alcoholism and drug abuse rates.

All of the previously identified alternatives should be pursued in efforts to improve the quality of health-related services provided.

POLICY: The City will continue to work with other public and private organizations to develop networks or other cooperative arrangements to provide social and health services.

ACTION 51: Identify needs for individual services.

ACTION 52: Identify how current level of services is inadequate.

ACTION 53: Identify potential improvement with better services.

ACTION 54: Identify cost savings due to adequate treatment compared to repeated treatment.

ACTION 55: Identify efficiencies to be achieved by a coordinated consortium of communities and service providers.

POLICY: The City and other private and public groups will encourage improvements in the skills and utilization of health service providers serving the community.

ACTION 56: Investigate training programs for Community Health Aides and Community Health Representatives to improve their effectiveness.

ACTION 57: Seek information on new programs offered in other communities.

POLICY: The City and other public and private groups will continue to seek other sources of financial support for health-related service programs needed by the community.

ACTION 58: Determine requirements for alcoholism treatment programs which qualify under Federal or State reimbursement programs.

ACTION 59: Identify need for level of care as offered in such treatment programs.

ACTION 60: Investigate regional need and interest in regional treatment programs.

POLICY: The City and other public and private groups will continue to support efforts to develop cooperative means of preventing social and health problems.

ACTION 61: Integrate programs of clinic, school nurse, visiting social service and health professionals, and youth center to prevent occurrence of drug abuse and alcoholism.

ACTION 62: Educate community on causes, symptoms, and treatment of diseases.

OBJECTIVE: Establish a multipurpose youth and community center in Seldovia to provide additional social and recreational opportunities for Seldovia youths, and alternatives to drugs and alcoholism.

POLICY: The City and other public and private groups will support efforts to construct and operate a multipurpose community and youth center in Seldovia.

ACTION 63: Determine types of activities needed in youth center.

ACTION 64: Translate activities into rough design and cost.

ACTION 65: Estimate operating and equipment expenses.

ACTION 66: Investigate funding sources for construction.

ACTION 67: Determine if operating expenses will be funded by:

- o General City revenues
- o Selective tax assessment by City
- o Contributions
- o Voluntary labor
- o User charges

ACTION 68: Document activities and programs, numbers of users, and anticipated community benefits.

ACTION 69: Apply for construction funding.

EDUCATION

In accordance with Alaska Statutes, Seldovia's public school system is the responsibility of the Kenai Peninsula Borough. The Borough builds and maintains public school facilities and finances school administration with local funds in combination with State and Federal grant monies.

Issues, Goals And Objectives

During the work sessions of the Steering Committee, early in the planning process, the following issues pertaining to education were identified:

(1) Lack of adult educational opportunities.

(2) Lack of diversity in local education.

(3) Continuation of maintenance of school buildings.

(4) Continued access to school facilities for community recreation and other non-education activities.

(5) Establishment of hot lunch programs.

These were expressed not in dissatisfaction with the existing education program but to identify areas in which the community would like to see more emphasis placed. To address these issues, the following goal was developed:

GOAL: High quality, diverse educational opportunities for all residents.

To achieve this goal, the following objectives were outlined by the Steering Committee:

OBJECTIVES:

(1) Establish college credit and continuing education courses.

(2) Bring in outside lecturer.

(3) Improve Borough building maintenance.

(4) Diversify curriculum of Seldovia School.

(5) Re-establish the community school program.

(6) Maintain access to school facilities for recreation and other non-education activities.

(7) Establish hot lunch program.

Several of these objectives are presently being addressed by the school administration and the Borough school board. Others, by their nature, require a somewhat larger student or community population, and as the community grows can probably be attained in the future.

The Susan B. English School is attended by elementary, junior and high school students. The enrollment for the 1978-1979 school year was 134 pupils, down from a high of 168 pupils in the 1976-1977 school year, and only 58 percent of its capacity of 230 pupils. The school, constructed in 1971, is on a site of about 5½ acres. Due to the physical constraints of the present site and of adjacent lands, expansion of the school at its present location is questionable.

Based on the population projections (see Chapter 3) for the three scenarios (Low, Intermediate, High) and on the following assumptions, the need for more classrooms will arise in the future. Table 7-1 on the following page shows the number of students for each year through the year 2000.

Using the projections for the intermediate growth scenario, the existing school facilities will exceed capacity in the year 1999 by three students, and again in the year 2000 by nine students. Although this exceeds the calculated capacity, it is doubtful that this small shortage will necessitate the addition of more classroom space.

If the high scenario is achieved, however, the capacity of the school will be exceeded in the year 2000 by an amount of students which will necessitate an additional six classrooms. Should this growth be realized, it is likely that another school site will be needed, due to the physical constraints on the existing site. The site for the new facility should be located near the existing school to utilize the existing gymnasium and other school facilities whose capacity will not be exceeded. One possible school site is the U.S. Reserve site in the north part of Seldovia. Other sites should also be considered, including the possibility of purchasing private land, if the high growth scenario appears to be taking shape.

PARKS AND RECREATION

In every area of city management, Seldovia must anticipate what needs and opportunities will exist at some point in the future, and decide what course of action will best assure the satisfaction of community needs. This is

TABLE 7-1
PROTECTED SELDOVIA STUDENT POPULATIONS
GROWTH SCENARIOS

YEAR	LOW	INTERMEDIATE	HIGH	Additional Classrooms Needed Under High Scenario (Based On High Case) # ADD'L. ROOMS NEEDED (ADDED TO EXISTING PERMANENT AND PORTABLE SPACE)	# ADD'L. PERMANENT ROOMS NEEDED
1980	133	143	160		3
1981	133	144	209		3
1982	134	158	225		3
1983	133	166	247	1	4
1984	134	171	292	2	5
1985	134	179	305	3	6
1986	133	195	322	4	7
1987	134	203	316	3	6
1988	134	195	294	3	6
1989	134	196	290	3	6
1990	135	197	295	3	6
1991	135	199	281	2	5
1992	136	204	311	3	6
1993	137	208	320	4	7
1994	138	212	329	4	7
1995	139	216	338	4	7
1996	139	219	348	5	8
1997	141	225	357	5	8
1998	142	229	369	5	8
1999	142	233	379	6	9
2000	143	239	391	6	9

Note: Based on 2.0 persons per OCS-related household, .46 pupils per OCS-related household; 2.8 persons per non OCS-related household, .74 pupils per non OCS-related household.

Exceeds Present School Capacity of 230 Students (includes portable and permanent space)

Sources: CH2M-Hill (1978) and Pacific Rim Planners, Inc.

especially true in addressing the recreational needs of the residents. Priorities in many small cities often tend to concentrate on satisfying basic requirements, often eliminating needed park and recreation facilities. Through planning, however, Seldovia can take advantage of funding and other outside assistance opportunities as they arise, and consequently enhance the recreational environment of the area without jeopardizing other essential services. This section outlines some of the important aspects of Seldovia's recreation, describes strategies for accomplishing recreation goals and objectives, and outlines policies and actions designed to achieve objectives for Seldovia's recreation.

Background

In and around Seldovia there are several areas which either have been historically used or have the potential to be used for recreational purposes. Each is unique as to its location, amenities and constraints, and therefore its opportunities for development and use. Each area is described below and shown in Figure 7-1.

OUTER BEACH

The Outer Beach between Gray Cliff and Seldovia Point along Kachemak Bay has been used by residents of Seldovia for many years. The land north and south of the beach area is publically owned and has also been available for recreational use. Approximately three-fourths of a mile north of the city limits, the Outer Beach is presently used for day use activities such as picnicking, hiking, and sightseeing. The State of Alaska owns approximately 20 acres of land in the Gray Cliff area.

LAKE SUSAN

Lake Susan, located near the center of the City, has been used by the residents of Seldovia as a skating area in the winter and for day use activities in the summer months. Surrounded by privately owned residential property, it is likely that with future development the access will become more and more restricted. The City presently owns a twenty foot easement around the lakeshore as well as the lakebed, but does not own any easements from a platted street to the lakeshore.

WATCH POINT PARK

Watch Point is a small peninsula extending into Seldovia Bay on the north end of the harbor already owned by the City. A navigational aid is located there, and unimproved trails circle the point. One can achieve a very good view of the harbor, Seldovia Bay and, on a clear day, Kachemak Bay and beyond.

SELDOVIA WATERFRONT

With the Alaska State Housing Authority's redevelopment of the Seldovia waterfront, the City has an opportunity to develop a small waterfront public area. With links to existing and future commercial developments, the community center and library, the public area could enhance the downtown area of the City. It would also serve as a permanent access to the shoreline.

SELDOVIA SCHOOL LANDS

All the previously mentioned recreation areas are basically "resource oriented." School property provides the opportunity for the City and the Borough to jointly develop a facility-oriented recreation area.

HISTORIC LANDS AND BUILDINGS

The two structures which seem to be important to the heritage of Seldovia are the waterfront boardwalk along Seldovia Slough and the Russian Orthodox Church. These structures are currently in need of repairs to prevent significant deterioration.

INDOOR RECREATION OPPORTUNITIES

In Seldovia there is a desire for indoor recreation facilities such as a bowling alley or movie theatre. As with most small cities, the economic realities of this type of enterprise prohibit their development in the private sector.

TOURISM

The development of "second homes" in the Seldovia area points out the fact that Seldovia is an increasingly popular place for people from Anchorage and other areas, to spend their leisure time. If the ferry system and float plane moorage improve, the tourism impact will affect Seldovia. This can be a positive or negative impact, depending upon how the City reacts.

The two arms of this industry, overnight/day use tourist and non-resident second home owners, have very different needs and requirements. They also have different impacts on the environment and on the economy of the City.

Issues, Goals And Objectives

Identified issues pertaining to recreation center upon the need to develop facilities to accommodate both indoor and outdoor activities. Among these are tennis courts, an athletic field, movie theater and bowling alley. Other issues are maintenance of access to existing recreation areas, the financing of resident and tourist-oriented recreation facilities and second home development by non-residents.

Goals and objectives for recreation include the following:

GOAL: Diverse opportunities for recreation activities and quality tourist trade.

OBJECTIVES:

(1) Establish a bowling alley.

(2) Establish a movie theatre.

(3) Develop tennis courts.

(4) Develop a multipuprose athletic field (baseball, football, etc.)

(5) Establish, maintain road access to outdoor recreation.

(6) Maintain access to existing recreation area (Outer Beach, Seldovia Slough, Lake Susan, etc.)

(7) Increase private capital available to develop recreation/tourism facilities.

(8) Take advantage of positive effects, control adverse effects of vacation home development by non-residents.

(9) Improve access to television for education, cultural and recreational enrichment.

Possible Solutions

If intermediate or high growth is to be achieved without major sacrifices in quality of life, concerted efforts will be needed to preserve existing recreational opportunities and provide direct and indirect incentives to recreational development by outside public and private groups.

OUTER BEACH

At the present time the Outer Beach (Figure 7-1) is divided into two publicly owned areas, to the north and west of private land through which the access occurs. Approximately 50 acres of the publicly owned land is under City ownership. The remaining 90 acres is State owned. Opportunities for the development of day use and overnight facilities exist, along with areas for nature study, hiking and other passive activities. With public control of the land, the City can ensure the continued access to and use of this popular area.

LAKE SUSAN

The City should secure continued access to and use of the lake through ownership of land somewhere along the lake, or through formal easements or use agreements with property owners. Once obtained, facilities should be developed on the land(s) to improve the recreational experience and also to protect the area from environmental degradation.

WATCH POINT PARK

This park could easily be developed further with a relatively small expenditure of development funds, and, because of its location could be easily maintained. Accommodations for parking are also needed at the access point.

SELDOVIA WATERFRONT

A public area could be developed in the vicinity of the existing civic center and small boat harbor which would serve residents of the City and tourists alike. The area could, if desired, be designed to enhance the waterfront aspect of Seldovia which is emphasized so well by the boardwalk.

SELDOVIA SCHOOL LANDS

Completion of development of basketball courts, tennis courts and a playfield will provide additional outdoor recreational opportunities for the residents of Seldovia. Completion of the present development could be undertaken jointly by the City, the Borough and other public or private groups in Seldovia.

HISTORIC LANDS AND BUILDINGS

Attempts could be made by the City or community groups (such as the Chamber of Commerce) to classify the boardwalk, Russian Church and other important landmarks as historic sites, so that they can be preserved for the benefit of future residents and visitors. Financial aid can be obtained from outside public and private sources to complete needed repairs, while maintenance would be the joint responsibility of the City, the Chamber of Commerce and, in the case of the Church, the present owners.

INDOOR RECREATION OPPORTUNITIES

Demands for indoor recreation opportunities can often be met through the cooperation between institutions such as the school, the library association or board. For example, if it can be documented that a movie theater is truly desired, the above-mentioned groups could organize to provide this service. The library could reserve and obtain films from the state-wide library system or commercial outlets, the school district could provide the room or building to show the films. Acquisition and installation of a satellite TV receiver could provide an alternative, and could be funded by outside sources. These types of cooperation can be utilized on many projects where it is economically unrealistic for a private enterprise to do so.

TOURISM

Tourism-oriented development, in no matter what form, can be either beneficial or detrimental to Seldovia, depending on how Seldovia responds to its challenges. As with other aspects of recreation, tourism should be further addressed in a complete parks and recreation plan, with specific visitor-oriented projects spelled out, and conceptual plans and financing strategies developed.

The overnight or day use tourist requires a publicly or privately developed destination where immediate needs for food and shelter are met. This can be accomplished through the development of lodges, motels, restaurants and/or campgrounds. Typically, the private sector has provided the lodges, motels and restaurant facilities. However, the City and the Seldovia Native Association can assist in their development by offering private investors incentives such as prorated utility charges, favorable lease arrangements of public or private land, and deferred taxes.

In many areas, campgrounds are developed, operated and maintained by the public sector, be it City, Borough, State or Federal government. There are also private campground developers who construct campgrounds in "high traffic" areas. For the City of Seldovia, it may seem inappropriate to develop, operate and maintain a campground based on limited present demand.

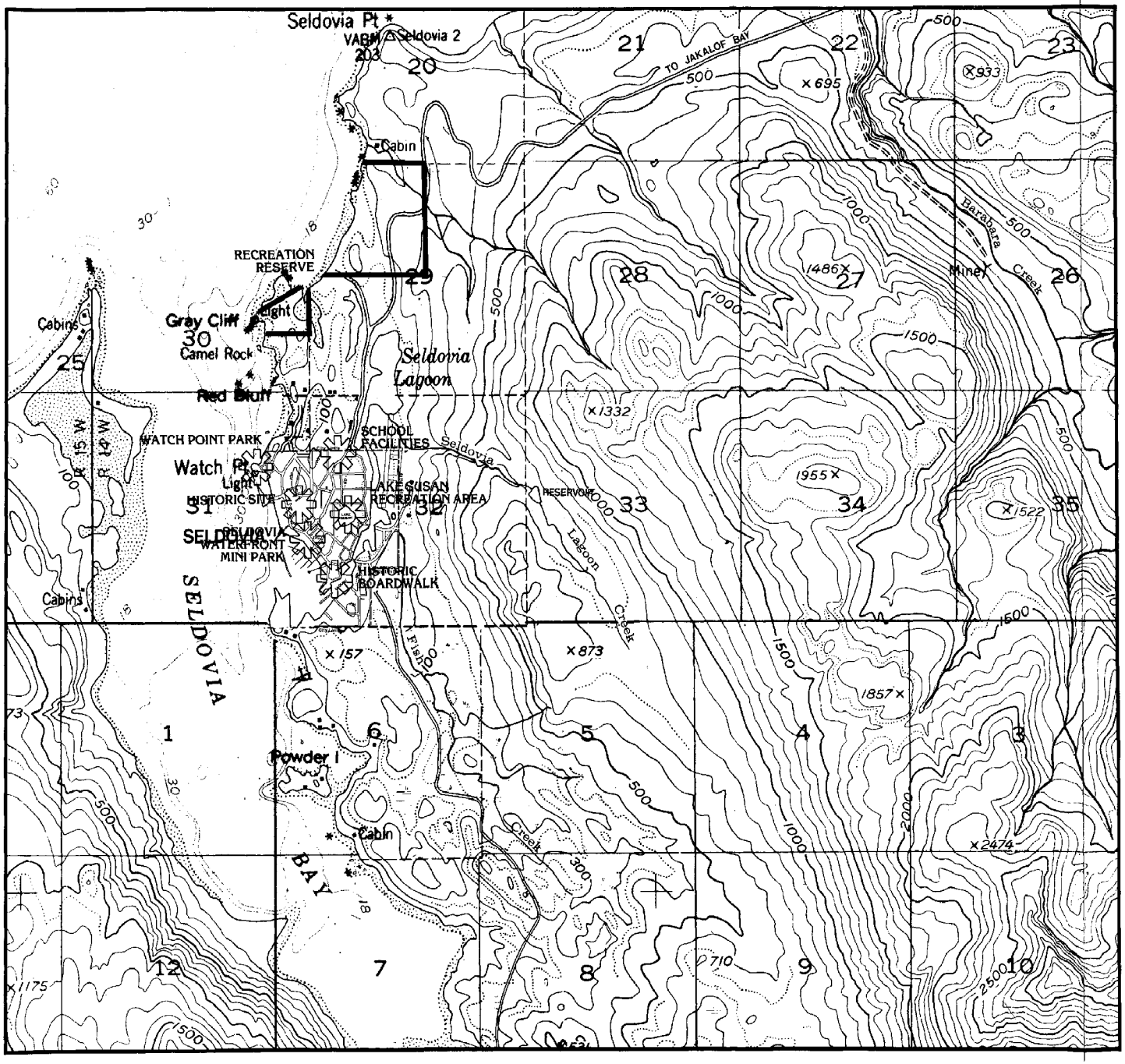

Figure 7-1

Recreational Use

Recreation Sites

Reserve Areas

SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

To encourage this type of economic development, the City may wish to obtain, for example, the Outer Beach for recreational purposes and reserve a portion of the area for a campground. This portion could then be leased to a private concessionaire for the development and operation of a campground. Should this occur, money from the lease of the property could be used by the City for the development and maintenance of the day use facilities at the Outer Beach which the residents of Seldovia would more likely use. Alternatively, the State could develop and operate a campground for use by tourists in this area

VACATION AND SECOND HOME DEVELOPMENT

As mentioned earlier, the non-resident second home owner's needs are different from visitors or tourists. Second home development can have significant economic benefits, but care must be exercised to avoid adverse impacts of poorly conceived development.

Second home development has the same environmental impacts as any other type of residential development. However, their impacts may be greater due to their lack or inadequacy of basic site improvements. Second homes also have a tendency to be located on sites which are environmentally sensitive, of special public concern due to their unique natural features, or in areas which lack the natural capacity necessary to sustain intensive development. Two of the most common impacts of this type of development are ground and surface water pollution from septic tanks and erosion and siltation from runoff generated by dirt roads and unvegetated (bare) construction sites.

Some of the positive impacts of second home development are in the economic benefits to the City or Borough. Second home development can stimulate local economies through increased tax revenues and developer and consumer spending. While in most cases, second homes are taxed at the same rates as first homes, many are only seasonally occupied and therefore, place few burdens on local public schools, utilities and emergency services. This is only a brief discussion of some of the impacts of second home development. Other aspects of second home development are considered in the Housing, Land Use, and Economic Development chapters of this plan.

DEVELOPMENT OF SELDOVIA PARK AND RECREATION PLAN

Another method of addressing park and recreation objectives is to develop a complete park and recreation plan for Seldovia which would build upon the information and recommendations found in this document. In most park and recreation plans, a scope of seven separate, although related, areas of work are found. These are discussed below.

1. Goals And Objectives

The plan should contain a statement of the long range park, recreation and open space goals of the City, plus a set of objectives which describe short-range steps and specific actions aimed at achieving the goals. The plan's goals should reflect the comprehensive planning program to avoid overlap and conflict.

II. Public Participation

A citizen task force should participate in the conduct of an opinion and recreation demand survey to determine the recreational desires of residents and visitors. Supplementing this, public review meetings should be held throughout the formulation of the plan.

III. Description Of The Planning Area

To assist in understanding the goals and objectives of Seldovia, the historical trends and the physical, economic and social setting of the community and its environs should be described. (This can be based on the Comprehensive Plan).

IV. Demand And Need

The identification of the demand for outdoor recreation opportunities and need for recreation areas and facilities may be determined in a number of ways. Some of these include the use of population standards based on public forums, sample interviewing or the identification of specific issues and problems. It is important that a systematic method be used and documented in the plan.

V. Existing Areas And Facilities

The plan should contain a discussion and identification of existing areas and facilities available to citizens residing within the planning area. These may be local, State, Federal or private facilities and may be located outside the geographical planning area.

VI. Action Program

The action program describes the methods and procedures to be used to accomplish the goals and objectives contained within the plan. It should include the acquisition or development of facilities, the use of public facilities, private enterprise and undertakings.

VII. Capital Improvements Program

A four to six year Capital Improvement Program (CIP) should be developed based on the action program. The CIP should include the project name, estimated cost of acquisition and/or development, the scheduled completion date and possible funding sources. (This can be a revision of the recreation component of the City's CIP).

With the completion of the revision of Seldovia's comprehensive plan, many of the ingredients of the park and recreation plan will be partially or completely addressed. The description of the planning area and the existing recreation facilities are fully covered, leaving more work to be done on park and recreation goals and objectives, a detailed action program and a revised recreation component of the City's Capital Improvements Program. Citizen input specifically directed toward parks and recreational needs is also required to responsibly complete a plan. Once the City has adopted a complete park and recreation plan, Seldovia will be in the position to take advantage of opportunities in financial assistance, land grants and the like as they become available.

Chapter 8
Transportation

Seldovia's transportation link with other communities is by air or water; there is no road connection. Presently, the City of Homer is the gateway to Seldovia for both modes. With the existing level of transportation service, the community is handicapped in maintaining and developing its economy, and even in meeting its basic needs, due to the limitations of the transportation service. If Seldovia is to attract industry (OCS activity, etc.) and accomodate an increased population, transportation services and facilities must be improved. The following chapter discusses existing conditions of Seldovia's air, water and road transportation services, and outlines a plan for improving them.

ISSUES, GOALS AND OBJECTIVES

Seldovia's street and road system appears to be a haphazard solution to the daily movement of traffic in and around the City. Only a few streets appear to be the result of formal construction. Many of Seldovia's 4 3/4 miles of street are very narrow, follow the contour of the ground and have numerous sight deficiencies. Few streets are paved, and of those which are, the asphalt surface has deteriorated. Several streets in the City which are regularly used are unplatted and may technically trespass across private property. In many cases, the existing travelways meander in and out of the platted right-of-way.

Most of these problems, although inconvienent, do not cause great hardship to the citizens of Seldovia. As the City grows, however, and traffic increases, several of these problems will likely become intolerable.

The principal means of water travel to and from Seldovia is by the M.V. Tustumena operated by Alaska Marine Highway System. The system provides scheduled service to Seldovia approximately ten months per year. Service is eliminated for about two months each year, usually during the winter season, for annual maintenance and refurbishment of the vessel. The isolation imposed by the ferry shutdown makes it difficult and expensive to ship or receive goods, and hinders Seldovia's economic development. In addition, ferry scheduling allows only two days of ferry service per week on consecutive days. Again, ferry service deficiencies hinder the development of the south Kachemak Bay area, and prevent the community from enjoying a desired level of mobility.

Commercial air transport is provided by two air charter services which operate between Seldovia, Homer and other nearby communities. The services provided by the existing airport and air charter operators are adequate, but improvements are needed in both if Seldovia is to achieve its growth objectives.

Seldovia's port and harbor facilities are similarly situated. Growth in moorage demand has exceeded the capacity of the existing small boat harbor, and new and expanded services are needed to enable Seldovia's economy to grow. Transportation improvements are particularly needed for growth in fisheries and tourism.

Recognizing these problems in Seldovia's transportation services, the nine issues were identified which relate to transportation:

ISSUES:

(1) Ferry arrival and departure times are inconvenient.

(2) Roads are not adequately maintained.

(3) Lack of pedestrian links between housing, stores, jobs, public facilities, etc.

(4) Freight shipping rates and services need to be improved.

(5) Direct air service to Anchorage is desired.

(6) The small boat harbor is undersized.

(7) Winter shutdown of ferry service leads to excessive isolation, and increased cost of goods and services.

(8) Access of residents to ferry (e.g., "bumping").

(9) Access to Jakalof Bay barge loading and unloading.

To address these issues, the following transportation goal was developed:

GOAL: Convenient, reliable and economical transportation within and between Seldovia and nearby communities.

The issues and goal were restated in the form of the objectives to guide the development of Seldovia's transportation system:

OBJECTIVES:

(1) Reschedule ferry arrivals and departures to more agreeable times to facilitate improved resident and tourist access, and relocate home port closer to area.

(2) Establish winter ferry service, such as from Jakolof Bay to Homer.

(3) Improve cargo handling - ensure weekly cargo and forwarding service.

(4) Establish and maintain pedestrian links within Seldovia, connecting housing, schools, public facilities, recreation areas, shops, etc.

(5) Vacate unnecessary streets.

(6) Complete platting of needed, existing streets.

(7) Maintain and improve street and road system to improve traffic circulation and safety.

(8) Complete improvements to airport navigation and capacity.

(9) Expand small boat harbor and associated facilities.

(10) Ensure greater access to ferry.

(11) Insure winter maintainance and access of roadway to beach and provide an easement for loading and unloading the barge adjacent to the boat float at Jakolof Bay.

BACKGROUND AND POSSIBLE SOLUTIONS

This section describes existing conditions and possible improvements in Seldovia's transportation services. Later sections of this chapter present planned solutions to problems.

Streets And Roads

Seldovia has over 4 3/4-miles of improved streets and roads within city limits. Outside of city limits, road travel is limited to Jakolof Bay and the Windy River area, approximately 15 miles north and east of the City. Figure 8-1 shows existing streets and roads within Seldovia.

An informal survey of streets open to traffic in May of 1979 revealed that a majority of Seldovia's roads are deficient in one or more aspects. Each street segment was rated in terms of sight distance, condition of travel surface and ability to safely accommodate two-way traffic. Combining these criteria, only 0.8 miles or 17 percent of the City's streets were rated as adequate by virture of having no visible defects. Of the remainder, 1.5 miles of 33 percent were slightly deficient (one defect), another 1.5 miles or 33 percent were moderately deficient (two defects) and the remaining 0.8 miles or 17 percent were rated excessively deficient, exhibiting deficient conditions in all three areas. The survey served as the basis for street classification and capital improvement plans presented in the remainder of this chapter.

STREET CLASSIFICATION

Seldovia's streets can be classified into categories for planning, programming and budgeting purposes. Utilizing criteria such as the area of town the street services, the amount of traffic which uses the street and land use, the streets in Seldovia have been classified into three categories of arterials, collectors and local access streets. Figure 8-1 and Table 8-1 summarize the classification of Seldovia's streets and roads.

Street classifications are important to determining construction and right-of-way standards for Seldovia's streets. Local access streets typically have the most lenient standards, while arterial streets are usually built to meet much more demanding specifications.

These classifications need not remain fixed, but can (and should) be reviewed periodically and revised as needed to accommodate changing conditions in the community. For example, should the activity at the airport increase and the property adjacent to the north side of Seldovia Slough be fully developed,

TABLE 8-1
SELDOVIA STREET CLASSIFICATION

Street	Justification For Classifications:
A. Arterials	
1. Seldovia Street/ Anderson Way	o Very good vertical and horizontal alignment. o Less expensive to maintain than existing route. o Removes heavy traffic from in front of the school.
2. Main Street (from Dock Street through parts of Kachemak Street, across Seldovia Slough bridge to airport).	o Heavy use by traffic. o Serves industrial, commercial uses and links airport to the City.
B. Collectors	
1. Alder Street (including extension)	o Both streets are used as secondary routes in the City.
2. Young Street	o Both streets serve neighborhoods as links to the arterials.
C. Local Access (All remaining streets)	o All remaining streets are used for and are classified for local access.

Source: Pacific Rim Planners, Inc. and Moore, Wallace & Kennedy, Inc.

the City may wish to upgrade the classification of Shoreline Drive from Local Access to Collector or even Arterial. With the change in classification, the City's efforts should begin to focus on upgrading the street to meet the new classification standards (as will be described in the next section).

STREET STANDARDS

Possible street standards could be of two types - design and tolerable. Design represents the preferred condition, while tolerable represents the minimum acceptable condition. The latter principally applies to the upgrading of a few important streets. Even larger right-of-ways and roadways (shoulder to shoulder width) are desirable if conditions permit, and may even be essential if topographic conditions dictate (such as a steep grade). Table 8-2 summarizes design and tolerable standards for city streets and roads.

PLATTING AND VACATING CITY STREETS

Street platting is the process by which the legal right-of-way for a street, sidewalk or other thoroughfare is defined and established. The process usually involves defining the boundaries by survey and legal description, establish-

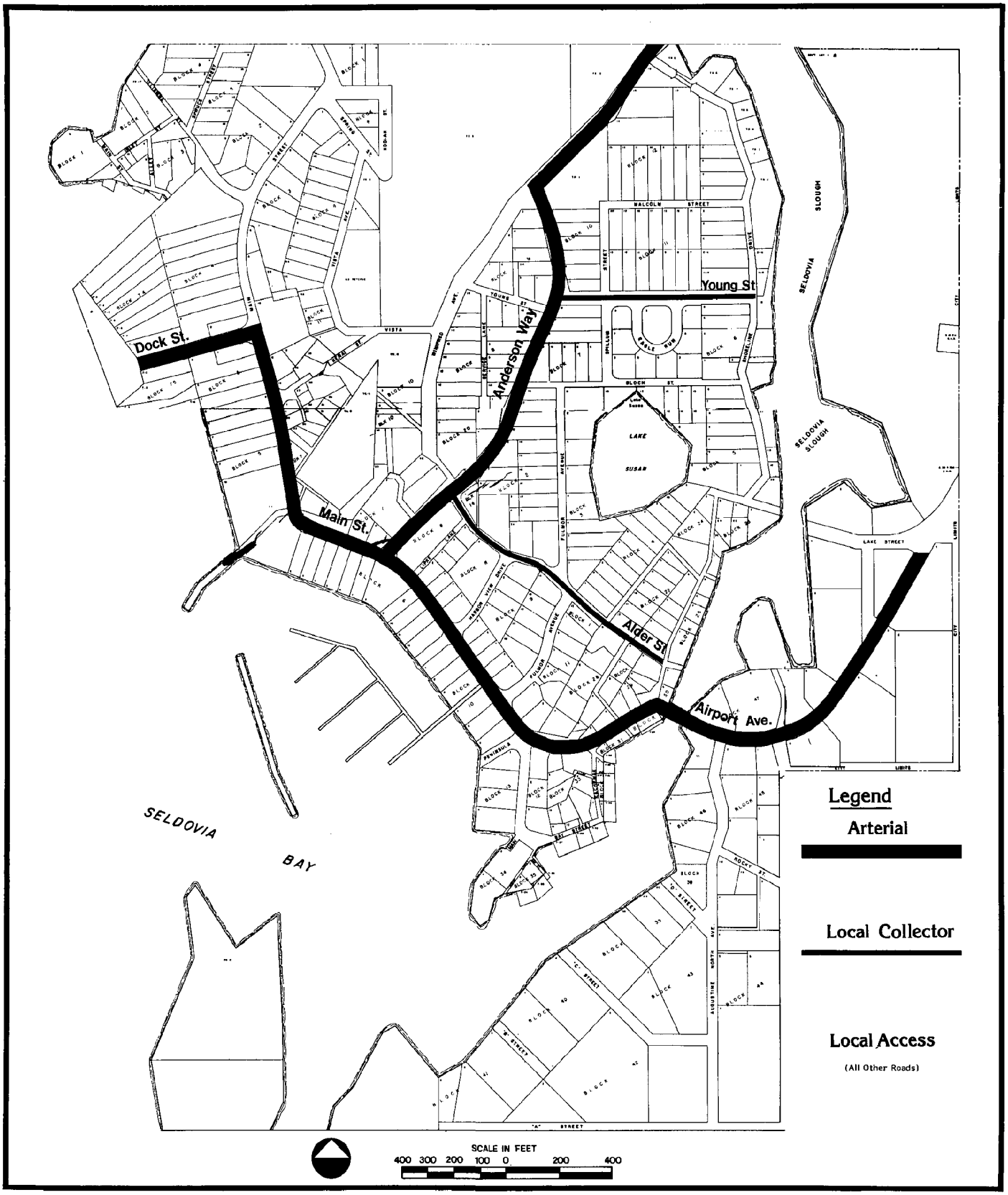

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Figure 8-1

Arterial Connections

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ment of public ownership (by gift deed, condemnation, negotiated purchase or other means) and recording of the transaction at a public land title recording office. Conversely, vacating is the process by which a public body determines that a right-of-way is no longer necessary, and transfers public ownership to a private party, often in return for payment of a fee.

TABLE 8-2
DESIGN GUIDES AND TOLERABLE CRITERIA
FOR CITY STREETS AND ROADS

	Arterial Streets		Local Access Streets	
Feature	Design	Tolerable	Design	Tolerable
Right-of-way	50 feet	-	40 feet	-
Surface Type	Bituminous	Gravel	Gravel	Gravel
Number of Lanes	2	2	2	2
Lane Width	12 feet	10 feet	11 feet	9 feet
Shoulder Type	Gravel	Gravel	Gravel	Gravel
Shoulder Width	6 feet	3 feet	3 feet	2 feet
Roadway Width	36 feet	26 feet	28 feet	22 feet
Minimum Roadway Width, Two-way Traffic & Parking On Both Sides	36 feet	36 feet	36 feet	36 feet
Minimum Roadway Width For Two-way Traffic & Parking On One Side	28 feet	28 feet	28 feet	28 feet

Source: Pacific Rim Planners, Inc. and Moore, Wallace & Kennedy, Inc.

Platting allows for the orderly development of street alignments, and should be considered an integral part of any street improvements. Platting is particularly important if subsequent legal and use conflicts are to be avoided.

Seldovia has a significant number of unplatted roads crossing private property, and platted roads which adjoining property owners wish to see vacated. Although not a serious problem in terms of safety or community development, potential or proposed platting and vacating actions are a consistent problem for City leaders. This section addresses the problem of platting and vacating Seldovia's streets, outlining a method to systematically review and decide on platting or vacating actions. The method is then applied to specific plats or vacations of concern.

Unfortunately, there are no hard and fast rules that can be applied to arrive at decisions regarding platting and vacating of existing travel ways and rights-of-way. Each street must be evaluated in light of its individual conditions, but on a uniform basis. To ensure uniformity, a worksheet can be used; an example worksheet is shown in Figure 8-2. By using a worksheet, candidates for possible platting or vacation can be selected on logical, rational grounds.

FIGURE 8-2
PLATTING/VACATING WORKSHEET

	Right-of-way		Remarks
	Yes	No	
Is there a platted R/W?			
Is there an existing travel way?			
Is the existing travel way within the R/W?			
Does existing facility meet design guidelines, except for R/W? If no, does it meet tolerable criteria? Does the existing R/W meet design guidelines?			
Does the facility serve daily traffic? If no, does it serve seasonal traffic? If no, or seasonal, will it serve daily traffic in the future? If no to future traffic, should the R/W be retained as a pedestrian trail and/or utility easement?			
Are there utilities within the R/W?			
Will improvements facilitate traffic flow and/or reduce hazardous conditions: on this street? on another street?			
Can the street be improved to design guidelines within present R/W? Are construction costs higher than average for street construction?			
Does the travel way in its existing location present any problems; very steep grades, poor drainage, hazardous objects, etc.?			
Are there utilities outside of the existing R/W?			
Would relocation to existing R/W result in an improvement or an enhancement to the environment?			
Are construction costs to relocate in existing R/W higher than costs for new or additional R/W and platting?			
Can another street or streets provide better access and service to abutting property?			

Six major questions should determine the outcome of a platting or vacating action. These are:

(1) Is a right-of-way or easement required for access to land, business establishments or dwellings?

(2) Is a right-of-way or easement required for access by emergency vehicles?

(3) Can a right-of-way use be limited to pedestrians and emergency vehicles only?

(4) Is a right-of-way needed for utility construction and maintenance?

(5) Will elimination of a platted right-of-way enhance the environment?

(6) Will improvement to one street help relieve traffic or reduce hazardous conditions on another street?

In a street vacation action, vacations should occur only where present and future needs can be handled with no appreciable decrease in quality of street service. It is often desirable to retain utility easements, or to retain the street for emergency vehicle and pedestrian use only where possible. Similarly, street platting should improve access to lands and ease traffic flow.

The platting and vacating worksheet was used to evaluate 6 proposed platting and vacating actions. Conclusions and planned actions based on the platting and vacation analyses are shown in Figure 8-3.

The analysis process was utilized on several other streets in the City such as Alder Street, Alaska Street, Church Street and Kenai Street. Figure 8-4 presents planned street system improvements.

Pedestrian Ways

Although Seldovia is relatively small and compact, foot travel is often difficult, expecially in the winter. Snow and slush pile up in and adjacent to the street, forcing pedestrians to walk in traffic lanes. A system of walkways which are maintained would ease this situation. The walkways should connect community facilities and businesses with the residential areas of the City. A possible walkway system is suggested in Figure 8-4. The walkway could be constructed as a standard sidewalk or alternatively be an informal, although maintained, trail or boardwalk.

Private Boats

Approximately 400 private craft call at Seldovia each year. It is estimated that 95 percent are pleasure craft and the remainder are commercial fishing vessels. The major portion of this traffic occurs between May and September.

In addition, as previously mentioned, there is a Homer-based barge service (Flyme Transport), which operates two landing crafts. During ferry layup periods, the barge service is the basic means of delivering van and truckloads of supplies, provisions, etc., to the community. The barge service

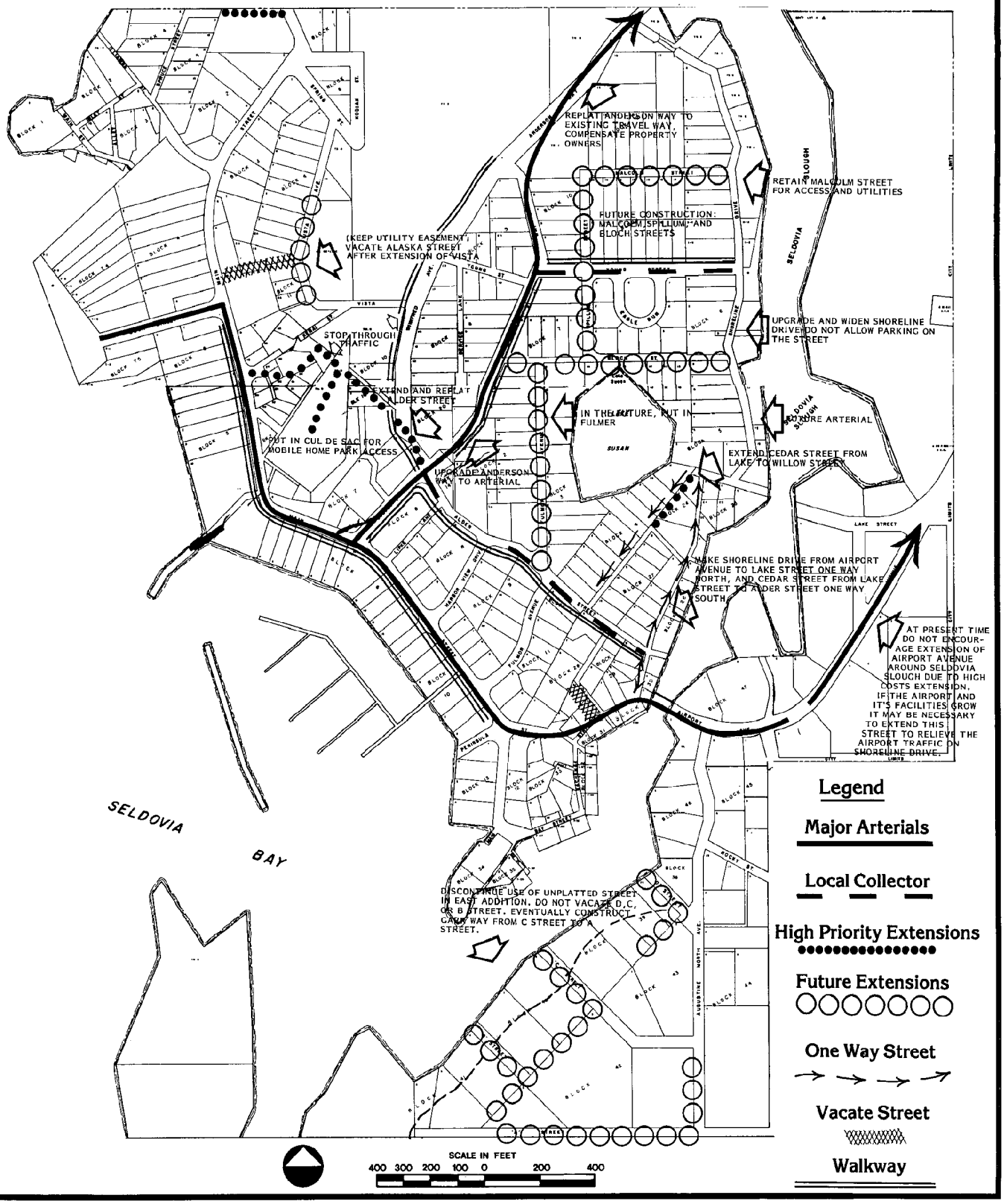
FIGURE 8-3
PLANNED STREET PLATTING AND VACATING ACTIONS

PLANNED ACTION	COMMENTS
1. Plat Cedar Street from Willow Street to Lake Street.	
2. Kachemak Street should be one-way northbound between Alder Street and Lake Street.	
3. Cedar Street should be one-way southbound from Lake Street to Alder Street.	
4. The area bounded by Main Street, Alder Street (extended northwesterly), and the existing travel way of Route S-434. Until other access is provided in the area, that portion of Route S-434 should remain open as a local access street. If rights-of-way are platted for this area, they should be wide enough to accommodate roadways which conform to the design standards, and street grades should be as gentle as possible.	The interior development within this area, particularly the mobile home court, requires access. Neither the existing platted rights-of-way nor the existing narrow travel ways provide adequate access, especially for fire fighting equipment. In addition, the units and accessory buildings appear too close to each other and to the existing travel way. Grades of most of the travel ways serving the area are too steep to ensure year-round access.
5. Plat extension of Spruce Street.	
6. Discontinue through traffic on unplatted road between Winifred and Alder Street extension.	

operates throughout the year and carries construction supplies and equipment during the construction season. It also serves vehicles which miss or cannot be accomodated by the ferry.

Port Facilities

The municipally-owned City Dock is located in the industrial section of Seldovia adjacent to Wakefield Fisheries. The State Ferry utilizes the City Dock. The 208-foot long structure is constructed of metal and concrete and is in good condition. Freighters and barges also use the dock. There are two other deepwater facilities - the old City Dock and the Wakefield Fisheries Dock.



SELDOVIA Comprehensive Plan

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Figure 8-4

Street and Walkway System Plan

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The small boat harbor, constructed in 1963, serves the local fishing fleet and other small boats. The facility is owned by the State of Alaska and is operated by the City. The harbor has a seaplane float, 83 slips for boats and has a total capacity for about 100 boats. There are two dry dock grids, one for smaller boats up to 32 feet in length, and a second which accommodates boats up to 62 feet in length. Available facilities include electric power, fresh water and lighting. There is ample parking space available; however, to ensure orderly development of the port and downtown area, additional parking areas should be set aside.

The harbor is currently at full capacity, with 102 slips rented. Of that number, 39 are local commercial fishing vessels and the remainder are pleasure craft. Nearly all of the pleasure craft are owned by persons who do not reside in Seldovia. There is a waiting list of about 80 applicants for moorage; most of the applicants are non-residents.

Enlargement of the facility could accommodate not only additional pleasure craft, but also larger fishing vessels in the 70-foot to 150-foot class.

According to current moorage rates, $24,000 to $30,000 in yearly revenues could be added through the provision of 80 - 100 additional moorage spaces for pleasure boats. This degree of enlargement would be consistent with the current demand for additional moorage. These additional revenues would be available to support further harbor maintenance and development.

Ferry Service

The Alaska Marine Highway System operates the M.V. Tustamena between Seldovia, Homer, Kodiak and Seward. The system provides scheduled, two day a week service to Seldovia. Service is eliminated for about two months each year, usually during the winter for annual maintenance and refurbishment of the vessel.

Based on the system's records, it appears that there is a considerable year-round demand for service. Passenger embarkment and disembarkment figures for Seldovia indicate substantial use regardless of the month of the year, particularly if vessel layup periods are excluded.

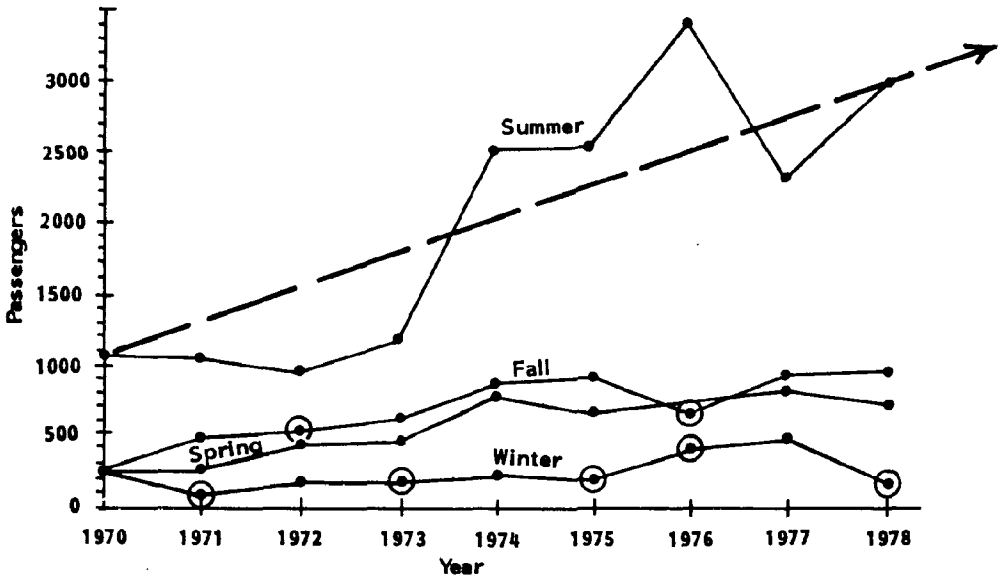
Ferry passenger traffic increased by a very significant 62 percent between 1972 and 1973. The increase coincided with a summer schedule change that provided two Homer/Seldovia round trips on Tuesday and Wednesday each week. Fifty-eight percent (58%) of the total 1974 passenger traffic occurred during the months of June, July and August. Since that time, ferry traffic at Seldovia has increased to approximately 4,650 passengers per year with about two-thirds of the traffic occurring during June, July and August.

During 1978, 1,508 passengers and 874 vehicles embarked at Seldovia and 2,147 passengers and 813 vehicles disembarked. Records of passenger tickets sold at Seldovia indicate that about one-fourth were purchased by persons not residing in Seldovia; during the summer, this fraction increases to nearly one-half.

The Alaska Marine Highway summer schedule for 1979 provided service between Seldovia and Homer on Tuesdays and Wednesdays each week May through September. The winter schedule provides this service once a week, except during annual layup period. The one-way summer passenger fare between Seldovia and Homer is $5.00, an additional $16.00 for auto. In winter the $16.00 counts for auto and driver. Rate hikes of $1.00 to $2.00 are expected in 1980.

Increased ferry and cargo service would benefit Seldovia residents, particularly in light of the lack of options available for scheduled trips to Homer and points further inland. During peak summer loads, ferry travel is limited to two consecutive days a week. With projected local population growth taken into account, as well as increasing tourist interest in the Kachemak Bay area, ferry traffic loads are expected to increase considerably in the future. The increase would be particularly acute during summer months. Additionally, because of the one day per week winter ferry schedule and the annual layup period, the expense and difficulty in transporting goods and people to and from Seldovia increases. As can be seen in Figure 8-5, summer peak passenger loads have attained a high of 3,390 embarkments and disembarkments, considerably surpassing winter, spring and fall demand.

FIGURE 8-5
SEASONAL NUMBERS OF PASSENGER
EMBARKMENTS AND DISEMBARKMENTS, SELDOVIA, ALASKA



◉ Decreased ferry runs because of annual layup

Source: Alaska Department of Transportation, Marine Highway System

The winter layup period, occurring on an annual basis, requires that ferry users plan their trips accordingly to avoid requiring travel inland during the time the ferry is not operating. As vehicular access is severely limited during this time period, it is difficult, and expensive, to make trips or obtain supplies from Homer, and particularly such inland points as Kenai and Anchorage.

Other, more expensive means of travel must be utilized during the layup period. Flyme Transport, based in Homer, operates two limited capacity landing craft type barges (38 and 25 ton payloads). The rates are currently $75.00/hour on the 4 hour round trip from Seldovia to Homer. The barge is available for some passenger and vehicular transport as well as cargo and supplies, on a unscheduled "as needed" basis. Cook Inlet and Homer Air provide year-round air service to Seldovia, with costs of between $15.00 and $17.00 per passenger one-way. Because only the barge service can accommodate vehicles and supplies in any capacity, the air service is only useful for more immediate needs, or connecting flights inland.

Broader economic questions additionally are posed by the lack of resident, visitor, and cargo access, particularly during the winter season. These will be discussed more fully in the Economic Development Chapter, however, several points need to be considered in relation to future transportation development in the area. The establishment of a marine service base for OCS support would require relatively unimpeded access to goods, and supplies from inland sources. Tourist access, important to community service activities and growth, is impeded currently because of the uneven weekly ferry route scheduling. The free movement of fish products and other industrial and service supplies is inhibited on a seasonal basis. Costs of basic food items, clothing, and incidential needs have risen proportionately to the increased costs of transport due to interrupted, or limited ferry scheduling.

One possible solution to the shortage and distribution of ferry runs would be relocating an additional ferry in the area, on a seasonal, or alternate basis. This would allow the scheduling of trips throughout the week, particularly on weekends. Additionally this would allow for the provision of ferry service throughout winter, avoiding a layup period. It appears possible that, given increased demand, through both tourist traffic and resident population increases, the State will eventually increase the scheduled number of runs between Seldovia and Homer.

Another method of alleviating summer and winter cargo and vehicular passage would be the establishment of a locally based charter tug and barge. The barge would be available on a regular basis for the transport of vehicles, and a substantial amount of cargo. This service would be particularly needed during the summer peak months and in the event of continual ferry layups, during the winter.

A third method of increasing the number of runs available, in this case of foot passengers, would be the establishment of a private or publically subsidized scheduled craft, based in Seldovia, which could shuttle passengers and their belongings back and forth to Homer on a daily basis. It is possible that, given the longshoring ferry tie-up charges ($500.00 and up) at the public dock in Homer, and the fluctuating numbers of passengers transported on the current State ferry, the State would consider the possibility of increasing the number of runs through the use of a less expensive craft.

Air Transportation

The Seldovia Airport is located approximately one-half mile east of the city center, across the Seldovia Slough. The airport is owned by the State of Alaska and maintained by the City. The runway is gravel surfaced and approximately 2,600 feet long. Due to unauthorized vehicles being driven on the runway and causing ruts and potholes, the City has had to increase their maintenance of the surface during the past year or so.

The airport is surrounded by hills and mountains. This, coupled with frequent gusty winds, makes takeoffs and landings difficult. There are no electronic navigational aids at the airport, thereby limiting operations to daylight hours. During the winter months, the situation allows operation of the airport for only 4 or 5 hours per day. Facilities at the airport are limited to a private hangar and a small auxiliary building. The airport is not served by the city sewage system.

Area residents would be allowed freer access to and from the airport through construction of a roadway link around the airport and connecting the Jakolof Bay Road. This would improve access to points north of the City as well as provide an alternative route to Seldovia in the event of a bridge failure.

The City does not have a separate float plane dock or facilities to support this type of operation. Presently, float planes use the small boat harbor for landings, takeoffs, loading and unloading. This causes conflicts with existing harbor operations and could be potentially dangerous.

AIR SERVICE

Alaska Aeronautical Industries (AAI) provides daily scheduled air service between Anchorage and Homer. Some flights are scheduled with an intermediate stop at Kenai. Wien Alaska Airlines provides one flight per week between Homer and Anchorage. The leg between Homer and Seldovia is usually by an air taxi service from Homer. The current round-trip air taxi fare (Seldovia to Homer) is approximately $30.00.

Two operators provide regular service between Seldovia and Homer: Cook Inlet Aviation and Homer Air Service. These operators carry passengers, mail and freight.

A recent study (Homan-McDowell Associates, 1978) provided the following air passenger volume information (Table 8-3).

TABLE 8-3
AIR PASSENGER VOLUME
SELDOVIA TO HOMER

Quarter	CIA (Seldovia)	HAS (All Points)
1st	946	1,807
2nd	1,052	3,113
3rd	1,141	4,089
4th	411	2,616
1976 Totals	3,550	11,615

Source: Alaska Transportation Commission

The study estimated the Seldovia portion of the traffic was 5,325 one-way trips and that the actual number of persons flying was approximately half, or 2,663. At that time the air taxi carrier estimated that 1/4 to 1/3 of the traffic to Seldovia was non-resident, i.e., State or Federal employees, loggers, fishermen, utility workers, etc.

According to quarterly reports by Cook Inlet Aviation for their base operations at Seldovia during 1978 (filed with the Alaska Transportation Commission), the total passengers carried was 6,662 or approximately 3,330 passenger round trips. The percentage of the total traffic by quarter was as follows:

First Quarter -	19 Percent
Second Quarter -	28 Percent
Third Quarter -	32 Percent
Fourth Quarter -	21 Percent
	100 Percent

As of October 1, 1979, quarterly reports for Homer Air Service were not available from the Transportation Commission.

Based on present traffic volumes, AAI has indicated direct airlines service between Seldovia and Anchorage is not feasible at this time.

AIRPORT AND AIR SERVICE IMPROVEMENTS

With the growth projected for Seldovia (see Chapter 3), it seems reasonable to expect that at sometime in the future, scheduled air service between Seldovia and Homer with links to Kenai and Anchorage will be initiated. Predicting when this will occur, however, is quite difficult. One recent study (CH2M-Hill, 1978) stated that unless the existing facilities at the Seldovia airport are improved, the air traffic will remain relatively light. This seems to imply that if the facilities are upgraded air traffic will increase at the airport. In part, this may be correct. However, economic activity and population growth must also occur to justify expenditures at Seldovia's airport.

To encourage economic growth and better serve the community, several improvements should be made to the airport. Navigational aides should be installed to allow use of the airport during evening and night time hours. These aids or lights, should be screened so they do not impact adjacent residential properties. Facilities at the airport should include a waiting room, restrooms and hangars. To do this the sewer system should be extended to this area. An all-weather surface should be considered to reduce maintenance costs and improve landings and takeoff conditions.

The City should seek State funding to design and construct a float plane dock and ramp facility in Seldovia Bay. The placement of this facility should be carefully studied to reduce the conflicts between the boats using the harbor and the float planes.

With these improvements, the City may be in the position to encourage one of the air services to coordinate their service to and from Seldovia with flights from Homer to Kenai and on to Anchorage. It seems unlikely that direct scheduled service between Seldovia and Anchorage will be realized in the near future. However, scheduled service to Homer with links to other cities, could be expected and encouraged if these airport improvements have been made.

It is also unlikely that the Seldovia airport could serve OCS development in any major way. A recent study (Alaska Consultants, Inc., 1976) stated "where neither road nor rail connections are available to many coastal communities, it is essential that a service base be road-connected to an airport, perferably one with scheduled main-line service and with facilities to handle Hercules-type cargo service..." This statement seems to relegate the Seldovia airport to very limited OCS involvement.

PLANNED SOLUTIONS

Based upon the preceeding discussion, planned solutions are shown below. Many of these require cooperation between the City, State and Federal government to realize these solutions in the areas of improved air, ferry and street service. Avenues of communication must be opened as soon as possible.

GOAL: Convenient, reliable and economical transportation within and between Seldovia and nearby communities.

OBJECTIVE: Reschedule ferry arrivals and departures to more agreeable times and relocate home port closer to area.

POLICY: The State will be encouraged to schedule the ferry service to accomodate more summertime and winter travelers.

ACTION 70: City send resolution to Alaska Marine Highway Service requesting year-round service, and increased frequency of summer service by relocating home port of ferry or adding additional ferries to Seldovia-Homer run.

ACTION 71: City, Chamber of Commerce work through State legislators to increase funding for additional and better service.

OBJECTIVE: Establish winter ferry service, such as from Jakolof Bay to Homer.

POLICY: The State shall be encouraged to supplement Seldovia's ferry service during the winter maintenance of vessels regularly assigned to serve Seldovia.

ACTION 72: City contact Alaska Marine Highway Service, State legislators to arrange supplemental service.

ACTION 73: City, Chamber of Commerce contract with private tug and barge operator to provide winter freight and vehicle ferry service between Seldovia and Homer.

OBJECTIVE: Improve cargo handling - ensure weekly cargo and forwarding service.

POLICY: Means will be sought to increase ferry traffic to and from Seldovia or to supplement the existing barge service.

ACTION 74: Encourage the establishment of a locally-based chartered tug and barge service.

ACTION 75: Encourage the State to increase the number of ferry runs per week, year-round.

OBJECTIVE: Establish and maintain pedestrian links within Seldovia, connecting housing, schools, public facilities, recreation areas, shops, etc.

POLICY: The City shall incorporate pedestrian-related improvements into future roadway construction projects (see Figure 8-4).

ACTION 76: City seek funds and community support to design and construct the pedestrian walkway system and to extend this system to serve future growth.

OBJECTIVE: Vacate unnecessary streets.

POLICY: The City shall vacate those streets determined to be unnecessary. In instances where it is decided to vacate a street right-of-way, the City should retain an easement for possible future utility construction and for pedestrian walkways if desired.

ACTION 77: Vacate streets indicated in Figure 8-4.

ACTION 78: Evaluate future proposed street vacations using criteria shown in Figure 8-3 and platting/vacation worksheets (Figure 8-2).

OBJECTIVE: Complete platting of needed or existing streets.

POLICY: When new streets are constructed or developed, they should be built within the platted rights-of-way. In cases where this is not feasible, the plat should be changed and the right-of-way acquired for the City. Private improvements should not be allowed within the platted right-of-way.

ACTION 79: Require survey of roadbeds of new streets prior to construction and approve construction drawings prior to issuance of building permits.

ACTION 80: Replat streets as needed.

POLICY: When right-of-way is dedicated (platted) for new streets, the minimum right-of-way width should conform with the design guidelines established for the street according to the street's classification (see Figures 8-1 and 8-3).

POLICY: Plats for new subdivisions should have complete road design drawings for construction before the plat is approved.

ACTION 81: Advisory Planning and Zoning Commission request Borough Planning and Zoning Commission and Borough Assembly to amend Borough subdivision ordinance to require subdivision applicants to submit road design drawings as part of subdivision plat applications for land in or near Seldovia.

OBJECTIVE: Maintain and improve street and road system to improve traffic circulation and safety.

POLICY: Private improvements in existing rights-of-way will be removed by the owner of said improvements at the owner's expense. If vacating or replatting is considered as an alternative to removal all costs of replatting, including land, surveys, legal fees, etc., should be at the owner's expense.

ACTION 82: City implement the improvements shown in Figure 8-4.

OBJECTIVE: Complete improvements to airport navigation, capacity and safety.

POLICY: Airport improvements will be encouraged which improve Seldovia's ability to develop its economy and provide safer, more accessible air service to residents and visitors.

ACTION 83: The City shall investigate funding sources to improve facilities and navigational aids for the airport.

ACTION 84: Improve the airport facilities and navigational aids.

ACTION 85: Encourage scheduled air service to Homer with links to other cities.

OBJECTIVE: Expand small boat harbor and associated facilities.

POLICY: The City shall encourage the further development of the boat harbor.

ACTION 86: The boat harbor shall be expanded to accommodate not only additional pleasure craft but also larger fishing vessels.

OBJECTIVE: Ensure greater access to ferry.
(Refer to Actions 70, 71, 72, 73, 74 and 75).

Chapter 9
Public Facilities

The proper development of the community's public services, including the water, sewer, wastewater treatment and solid waste disposal systems, are critical not only to maintain the welfare of its residents, but to attract new commercial and industrial development.

In this chapter, the existing conditions of each City public utility will be reviewed; present and anticipated needs will be defined; and recommendations presented for system betterment.

BACKGROUND

Wastewater Collection And Treatment

An existing sewage collection system (Figure 9-1) serves approximately three-fourths of the residents within the city limits. The collection system was constructed in the mid-sixties, and the gravity lines are generally in excellent condition. The system also contains two pump stations. Pump Station No. 1, on Bay Street, receives flow from the east third of the service area. Pump Station No. 2, on Main Street, discharges the total system flow to a 12-inch raw sewage outfall extending 300 feet into Seldovia Bay. The discharge of raw sewage has contaminated shellfish within the bay and is esthetically objectionable since the outfall is exposed at low tide.

The Pacific Pearl (or Wakefield) seafood processing plant presently discharges cooling water, saltwater and process wastes to the City sewer on Main Street. Flow monitoring conducted in September 1978 indicated approximately 70 percent of the total sewage flow is industry-generated (Tryck, Nyman & Hayes, 1978). Since the 1978 studies, an additional seafood processing plant (S.A. Packers, Inc.) has been built. Its impact, however, has probably been minimal, since the plant separates shells from and reprocesses wastewater.

Extended pump times and high solids and saltwater concentrations caused by the seafoood discharge have resulted in continuing excessive operation and maintenance costs at Pump Station No. 2.

A plan is currently being prepared for a proposed sewage treatment facility which will provide secondary treatment in accordance with EPA regulations. The draft facility plan (published in November, 1978) evaluated four treatment methods, recommending that the City pursue the "oxidation" concept since it had the lowest equivalent annual cost. The report also noted that if an agreement for landfill disposal of sludge cannot be obtained, an aerated lagoon located near Gray Cliff, north of Seldovia, is the next best alternative, since it offers the advantage of greatly reduced sludge disposal requirements, albeit at a higher cost (Tryck, Nyman & Hayes, 1978).

Since they constitute such a large component of Seldovia's wastewater flow, industrial wastes have become one of the principal issues which remain to be resolved prior to final adoption, by the City and State, of the facilities plan. Variables which remain to be finalized include:

(1) Extent of City involvement in coordinating industrial waste disposal.

(2) Level of treatment required by State and Federal agencies.

(3) Location of outfall.

(4) Possibility for joint use of facilities by agreement of processors.

(5) Use of existing raw sewage outfall for discharge of seafood processing wastes.

(6) Type and number of additional fish or seafood processing plants anticipated.

Solid Waste

Solid waste is collected by a private company licensed by the City. The present landfill is located south of the City and is maintained by the Borough.

Assuming that the solid waste collection and landfill management functions continue to be performed by others, the City's involvement in solid waste management will continue to be minimal.

Water System

Seldovia's drinking water is supplied by impoundment of two separate drainage basins. The Upper Reservoir, with a 5 million gallon storage capacity, is the City's primary source, but problems with insufficient year-round flow, winter freezeover, fall algae blooms and leakage in the 10-inch diameter wood stave transmission line make it an unreliable source. Water from the reservoir is chlorinated and flows through a pressure reducing valve prior to entering the distribution system. The quality of this water is excellent, except during periods of algae bloom.

The second source that has recently been developed is Fish Creek, which flows northwest to Seldovia Slough. This source has been developed by construction of a low cement dam. The Fish Creek Reservoir is located near city limits in an uncontrolled watershed. Some of the lands within the reservoir are privately owned. Recommendations to protect the quality of Fish Creek are discussed in Chapter 6.

The Fish Creek pump station contains diesel-driven pumps with a capacity of 1,000 gallons per minute (gpm) each. One of these pumps must be run constantly when the Upper Reservoir is unavailable, since the Fish Creek Reservoir is situated at too low an elevation to provide gravity service to the City. The pumped water enters the distribution system downstream of the existing pressure reducing station. In the past, Fish Creek has not been chlorinated; the City's current water improvement program includes provisions to chlorinate water from both sources.

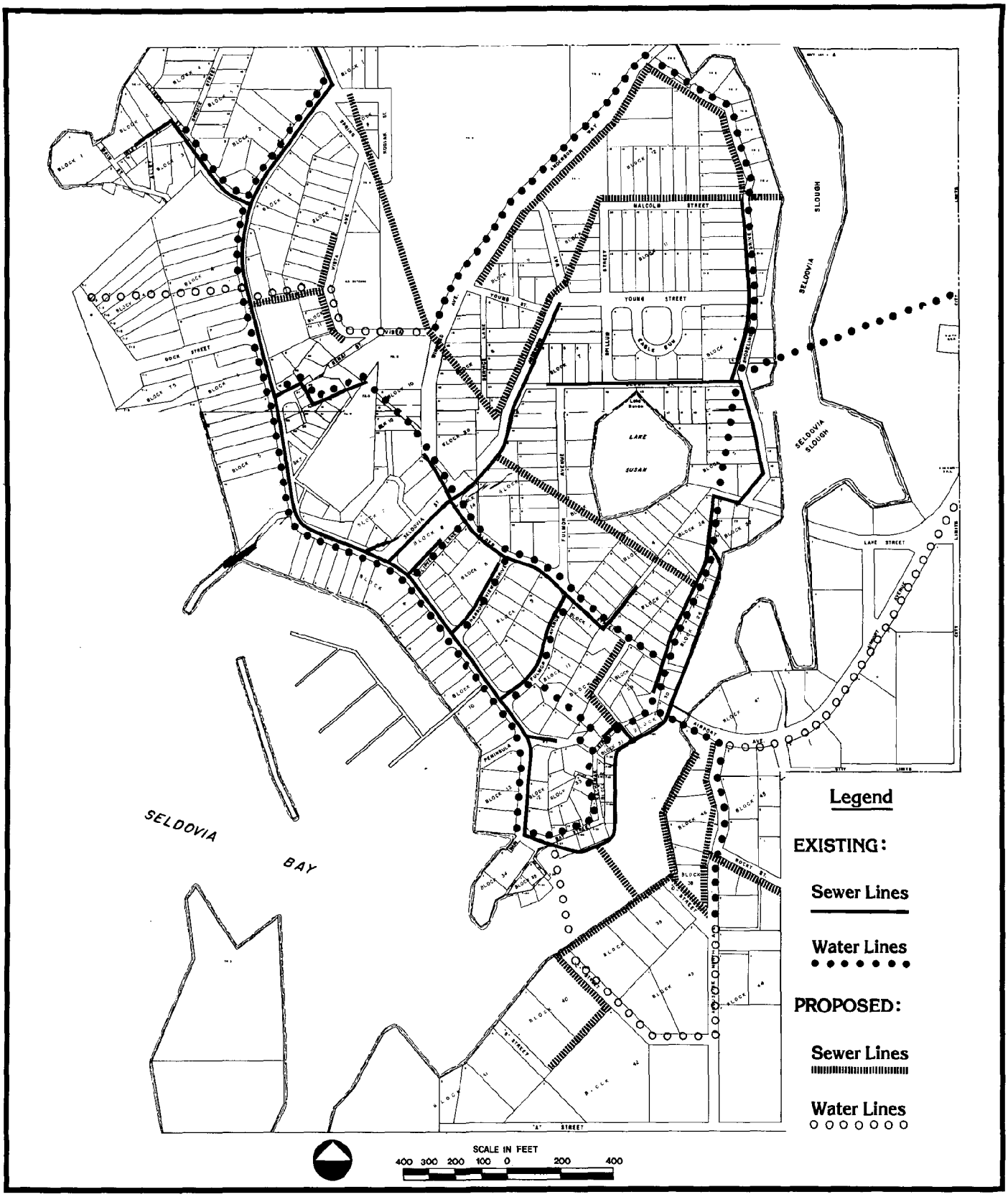


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Figure 9-1

Existing and Planned Water and Sewer Systems

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Intermittent stream gauge readings taken by the USGS between 1967 and 1972 indicate the minimum observed flow in Fish Creek to be 1.49 cubic feet per second, or 670 gpm (U.S. Department of the Interior, 1973).

TRANSMISSION AND DISTRIBUTION

The transmission system consists of a 10-inch main running from each reservoir west across Seldovia Slough to the City distribution grid. Portions of the line downstream of the Upper Reservoir are wood stave pipe having relatively high maintenance costs. The remaining portions of the line are either cast iron or steel.

The distribution system consists of six through 10-inch mains, most of which were installed after the 1964 earthquake. The lines are generally well-looped and capable of supplying peak flows for fire protection in the residential and commercial areas. The distribution system also contains some two-inch line in the southeastern residential section of the City.

EXISTING AND PROJECTED WATER USE

Residential water consumption averages 120 gpm, or 350 gallons per capita per day (gpcd) during summer months. This rate nearly doubles to 210 gpm during winter months, whereas typical per capita consumption generally ranges between 150 and 200 gpcd. The higher consumption in Seldovia is attributable to the absence of residential metering and water wastage during winter months to prevent line freezing. While population within the planning area is expected to approximately double by the year 2000, it is anticipated that total residential water consumption will not increase significantly due to reduction in amount of water wastage with the onset of metering (Tryck, Nyman & Hayes, 1978).

Industry uses a significant portion of the City's total water consumption during the crab processing season, which runs August 1st to September 15th and December 1st to May 31st. Data obtained for the period January 30 through February 1, 1979 indicates Pacific Pearl Seafoods uses a daily average of 150 to 165 gpm, which is 40 to 45 percent of total city-wide consumption. S.A. Packers, the second seafood processor in Seldovia, is not presently operating at full capacity, and crab processing comprises a smaller fraction of the business volume than at Pacific Pearl. For purposes of planning, ultimate water consumption for S.A. Packers is estimated at 75 gpm, while domestic water consumption (including winter wastage) accounts for another 210 gpm. Based upon these estimates, present peak day consumption is approximately 450 gpm. Thus, any assured source capacity in excess of 450 gpm would be available for system expansion.

Significant demands on the City's water supply would occur if a service base for offshore oil development is sited in or near Seldovia. Research conducted by the Alaska Department of Community and Regional Affairs (1976) estimated that freshwater requirements to support offshore oil operations in Lower Cook Inlet are:

- 10 to 35 gpm (daily average), peaking in 1980, to support exploration;
- 35 to 145 gpm, peaking in 1983 to support development;
- 150 gpm maximum to support exploration and development in year 1983.

Fire protection requirements vary within the City. Residential areas and the small commercial establishments in the business district have a fire flow requirement of approximately 500 to 1,500 gpm. The City's network of mains, six inches in diameter and larger, are capable of delivering these flows. Some of the developed portions of the City have substandard mains (smaller than six inches in diameter). These include the east side of Seldovia Slough and along Anderson Way, south of Malcolm Street.

For planning purposes, the cannery and the shopping center on the waterfront are considered to have fire flow requirements of approximately 2,500 to 3,500 gpm, based on National Board of Fire Underwriters criteria for similar building size and type. A recent report recommended construction of a 10-inch line between Winifred Way and Main Street to complete the looping of the system across the north side of the City (Tryck, Nyman & Hayes, 1979). This strengthening of the supply system will ensure that required flows for fire protection can be delivered at the dock area from a distribution viewpoint. From a supply standpoint, however, fire protection at the dock area is limited when the system is supplied from Fish Creek by the nominal 2,000 gpm pumping rate of the existing pump station.

Storage requirements for fire protection are typically established by insurance underwriters, based on the composite risk within the City and not the highest risk. For planning storage requirements, a 2,500 gpm flow is assumed. The 1973 Grading Schedule for Municipal Fire Protection requires a two-hour duration for a 2,500 gpm flow. Accordingly, required fire protection storage is estimated to be:

2,500 gpm x 2 hours x 60 min/hr = 300,000 gallons

The 300,000 gallons of storage required for fire protection is not reliably provided by present facilities because of the previously mentioned seasonal limitations of the Upper Reservoir.

Electrical Power

Electrical power is currently supplied to Seldovia by Homer Electric Association via the transmission line running from China Poot Bay to Seldovia. The line cuts a swath through areas which are heavily wooded and of varying topography. Power interruptions due to falling trees and blowing limbs have been frequent. Much of this problem may be attributed to inadequate maintenance of the right-of-way.

ISSUES, GOALS AND OBJECTIVES

Based upon the background discussion and citizen input, issues, goals and objectives relating to public utility services have been identified.

ISSUES:

(1) Unavailability of reliable, adequate quality public water supplies on a year-round basis (e.g., winter freeze-up, algal blooms, pollution, etc.)

(2) Lack of adequate reservoir storage and delivery system water supply capabilities, particularly with respect to provision of adequate fire protection.

(3) Per capita cost of water to local residents.

(4) Discharge of untreated sewage to, and possible pollution of, Seldovia Bay by the City sewer system.

(5) Discharge of raw sewage by some residents into Seldovia Slough.

(6) Discharge of industry-generated waste water flows to City sewers.

(7) Unavailability of sewer service in portions of the City (i.e., East Addition) and difficulty of financing sewer service extensions.

(8) Extension of City sewer service beyond present city limits.

(9) Visual impact of Homer Electric Association's electric power lines.

(10) Lack of municipally-owned gravel or crushed rock source.

These issues have been used to develop an overall goal and specific objectives for Seldovia's public utilities.

GOAL: Provide dependable, adequate public utilities for present and future Seldovians at a reasonable cost.

OBJECTIVES:

(1) Provide adequate water supply and distribution facilities to all customers within the city limits.

(2) Improve consistency in availability of quality drinking water on a seasonal basis.

(3) Provide reliable water storage capacity to meet fire protection, equalization and standby requirements.

(4) Provide sewage treatment meeting all applicable State and Federal requirements at an affordable cost.

(5) Provide municipal sewer service to all existing residential and commercial buildings within the city limits.

(6) Assure availability of standby electric power.

(7) Lessen visual impact and power interruptions, from electric power lines and utility corridors.

(8) Assure availability of environmentally sound solid waste disposal services.

(9) Obtain municipal ownership of a gravel or crushed rock source.

POSSIBLE SOLUTIONS

A wide range of approaches may be employed to achieve the public utility objectives stated above. This section describes possible approaches which may be employed, and serves as the basis for planned solutions presented in the final section.

Water System Alternatives

A wide range of construction options have been set forth in other reports which could meet Seldovia's water supply needs (Tryck, Nyman & Hayes, 1978 and 1979). These alternatives include:

(1) Construction of a filtration plant and a 500,000-gallon steel reservoir. This course of action includes continued use of the Fish Creek pump station when supply by the Upper Reservoir is not possible.

(2) Raising or relocating the Upper Reservoir Dam.

(3) Increasing flow to the Upper Watershed by diversion from Fish Creek.

(4) Relocation of the Fish Creek Reservoir upstream from the present location.

The filtration plant proposed in Alternative No. 1 will remove debris and micro-organisms such as algae from the water.

Filtration, however, may not be required if an adequate settling basin is provided. It is possible that relatively inexpensive modifications to the Fish Creek intake pipe could greatly reduce the amount of debris entering the system. Such modifications could include constructing a baffle at the intake and/or modifying the shape and discharge point of the relatively small reservoir to reduce turbulence. This work could be accomplished while the system is being fed from the Upper Reservoir to minimize adverse effects on water quality.

If the minor modifications discussed above will not prevent debris from entering the water system, the City may wish to accelerate the preliminary planning and feasibility study for relocating the Fish Creek reservoir upstream of the present location (Alternate No. 4). Additional study could then confirm whether an intake structure with a sufficiently large reservoir can be designed to eliminate debris problems associated with the Fish Creek supply.

Alternate Numbers 2 and 3 may improve water quality and availability, but as noted in Chapter 6, this construction will not substantially increase flow within the Upper Watershed. Thus, substantial expenditures such as dam construction within the Upper Watershed probably cannot be justified since the small size of this watershed limits both the quantity and reliability of the impoundment.

A reservoir sited at upper Fish Creek could offer many potential advantages, including elimination of pumping requirements by providing gravity service to the City and possible elimination of filtration plant requirements if adequate settling is provided.

If a suitable impoundment site cannot be obtained in upper Fish Creek, the City could consider a fifth storage and supply scheme by combining Alternate Numbers 1 and 4. In this scheme, a steel reservoir would be sited to provide gravity service to the City and fed by a transmission line from upper Fish Creek, eliminating the need for a pump station.

As with any of the Fish Creek supply alternates, a proper intake is required to prevent debris from entering the system.

While construction cost per million gallons stored is generally less for surface impoundment behind an earth-filled dam than for a steel reservoir, other cost factors need to be considered such as site acquisition, soil conditions, topography and maintenance.

It would appear that the City may be able to minimize capital expense for water system improvements by constructing the upper Fish Creek Reservoir, Alternate No. 4. The final determination should be based on a detailed engineering evaluation examining the minimum flows in Fish Creek as well as a cost-effectiveness analysis of all alternate solutions to the source and supply problem.

A possible outline of required planning steps to determine feasibility of upper Fish Creek Reservoir would include five basic steps:

(1) Hydrologic analysis to determine minimum flow and suitability of Fish Creek as long-range supply source.

(2) Site analysis to determine possible locations for reservoir considering elevation required to provide adequate water system pressure, extent of land flooded by impoundment, depth of water, length of dam, proximity of suitable embankment material and soils analysis.

(3) Evaluate site acquisition, water rights, environmental considerations and measures to protect watershed (see Chapter 6).

(4) Cost-effectiveness analysis.

(5) Determination of grant/loan eligibility and funding sources.

As noted earlier, the minimum flow observed in Fish Creek was 670 gpm which would be adequate to supply average daily requirements in the intermediate growth scenario, but insufficient for the high growth scenario.

It should be emphasized, however, that no definitive conclusions can be reached at this time regarding the adequacy of Fish Creek as a long-term source for the City, since there is insufficient stream gauging data to establish minimum stream flow. In addition, water rights have to be established and it is possible that a certain minimum year-round flow has to be maintained for other environmental reasons. Coordination with the Alaska Department of Natural Resources and the Alaska Department of Environmental Conservation is needed to establish an allowable withdrawal rate from Fish Creek.

Further study is also needed to establish the minimum flow in Fish Creek for a conservative recurrence interval such as 50 or 100 years. This could probably be achieved by additional stream gauging and correlation of gauging data with rainfall. Detailed flow information for Fish Creek will then enable the City to better plan required water system improvements.

WATER STORAGE REQUIREMENTS

Storage is typically provided in a water system to increase fire protection, provide standby storage, and provide equalization of flows within the system.

FIGURE 9-2
PROJECTED MUNICIPAL WATER REQUIREMENTS
UNDER INTERMEDIATE AND HIGH GROWTH SCENARIOS

INTERMEDIATE SCENARIO		
USER		DEMAND
Residential Consumption	=	210 gpm (Present peak winter residential flow)
Industrial Consumption (24-Hour Average)	=	240 gpm (S.A. Packers at estimated full capacity plus Pacific Pearl)
Marine Support Base	=	50 gpm (1/3 of total Cook Inlet requirement Year 1983)
TOTAL WATER DEMAND		550 gpm

HIGH SCENARIO		
USER		DEMAND
Residential Consumption	=	210 gpm (Current winter peak for 500 capita, unmetered) + 65 gpm (477 capita @ 200 gpcd assumes new construction to be metered)
Industrial Consumption (24-Hour Average)	=	315 gpm (Assumes 3rd seafood processor size of S.A. Packers)
Marine Support Base	=	100 gpm (2/3 of total Cook Inlet requirement year 1983)
TOTAL WATER DEMAND IN PEAK YEAR (1983)		690 gpm

Source: *Pacific Rim Planners, Inc. and Moore, Wallace & Kennedy, Inc.*

Total storage required is generally calculated as the sum of flow equalization storage plus fire protection storage, or flow equalization storage plus standby storage, whichever is greater.

A minimum of 800 gallons per service is frequently recommended for standby service. Based on year 2000 population of 913 and assuming three persons per service, needed residential standby storage is:

$$\frac{913 \text{ Capita}}{3 \text{ Persons/Service}} \times 800 \text{ gpcd} = 243{,}000 \text{ gallons capacity}$$

Storage to provide one-day standby service to the two existing seafood processors based on a 240 gpm flow averaged over 24 hours is:

$$240 \text{ gpm} \times 1{,}440 \text{ min/day} = 346{,}000 \text{ gallons capacity}$$

Fire flow requirements within Seldovia vary from 500 to 1,000 gpm in residential areas to 2,500 to 3,500 gpm along the waterfront. Storage requirements for fire protection are typically established by insurance underwriters, based on the composite risk within the City and not the highest risk. For planning storage requirements, a 2,500 gpm flow is assumed. The 1973 Grading Schedule for Municipal Fire Protection requires a two-hour duration for a 2,500 gpm flow. Accordingly, fire protection storage is estimated to be:

$$2{,}500 \text{ gpm} \times 2 \text{ hours} \times 60 \text{ min/hr} = 300{,}000 \text{ gallons}$$

The amount of storage required for flow equalization will primarily be controlled by industrial consumption patterns, and the minimum sustained flow of the source. If the minimum flow in Fish Creek is less than approximately 400 gpm (year 2000 population = 913 @ 800 gpcd + industry at 240 gpm), a relatively large impoundment would be required to equalize seasonal variations of the source (not considering maintenance of any minimum flow downstream of intake). However, if the minimum flow is greater than 400 gpm, storage is only required to equalize demand.

It appears that a 500,000-gallon reservoir would be adequate to provide the storage requirements for standby service, fire protection and demand equalization. Prior to finalizing plans for any of the storage options, the City should establish the minimum design flow of Fish Creek to verify if supply equalization is required.

The City could continue using the Upper Reservoir as the favored source until a high quality, reliable source is developed on Fish Creek or elsewhere as may be required. When an alternate source is developed, the Upper Reservoir can be shifted to a standby basis. The City can monitor leakage rates in the Upper Reservoir and also observe whether deeper ponding would reduce algae problems. Maintenance costs, both current and projected, could be evaluated as well as reliability of the new source to determine if continued use of the Upper Reservoir is justified.

The City's 1976 Water Plan and 1979 Water System Improvements Report (Tryck, Nyman & Hayes, 1978 and 1979) contain detailed plans, indicating distribution system improvements required as additional areas of the City are developed.

The public works standards noted earlier could be adopted to establish City standards for water main size, type of material, spacing of valves and hydrants and service line details.

Any improvements to the water system should comply with the watershed management plan, presented in Chapter 6 and summarized as follows:

SHORT TERM - Protection of existing sources, Fish Creek and Reservoir Creek, for approximately the next five years.

INTERMEDIATE TERM - Improvement of water collection and storage within present watersheds, to be implemented over a period of five to 20 or more years.

LONG TERM - Develop larger sources, either Barabara Creek or Seldovia River.

Other possible actions regarding new construction include:

(1) Minimum cover for privately-installed main and service lines should be established to provide protection from freezing.

(2) Water main standards could also be established. Water mains could be ductile-iron pipe because of its superior strength and durability. This pipe can also be thawed with electric current if frozen and bedding requirements in rock are less stringent than for other types of pipe. Ductile iron will interface with cast-iron pipe previously installed.

(3) Included in the public works standards could be a policy establishing that extensions to the water system be a minimum size (such as eight-inch line for dead-end service or six-inch line if looped). City policy could also be established specifying that substandard portions of the distribution system be upgraded prior to allowing new connections. Improvements could be financed by ULID assessment procedures, hook-up charges, or from general or capital improvement funds if the work is an improvement benefiting the entire system.

If extensions are made as noted above, the City's water distribution system will be adequate for consumptive and fire fighting requirements within the residential areas to year 2000.

At the completion of the ongoing inventory of the water system, the City can review location and spacing of valves and fire hydrants, and establish a construction program to correct any deficiencies that affect system adequacy and reliability.

Wastewater Treatment

Additional study is needed to determine what treatment is necessary for sludge dewatering prior to land disposal. Once landfill criteria are established, alternate processes can be evaluated which will consider the volumes of sludge anticipated; climatic limitations affecting open-air drying, landfill management practices, and availability of service support and technical expertise required for operation and mechanical sludge dewatering equipment.

At present, two seafood processors discharge to the City's sewage collection system. A recent study of water quality management needs completed for the Kenai Peninsula Borough noted:

> *"...it is very doubtful that industry will choose to discharge its waste into the Seldovia municipal system under the presently established conditions for Federal financing of sewage collection and treatment works. As in the case of Seward, the industry would have to pay a very large share of the overall cost, but the present effluent discharge criteria for seafood processing wastes can be met with a much smaller investment than would be required to pay the industry's share of a system which would meet the requirements for treatment of municipal wastes".* (Tryck, Nyman & Hayes, 1974).

Seldovia's Draft Facility Plan (Tryck, Nyman & Hayes, 1978) is based on separate disposal of seafood processing wastes. Even though industry may be required or choose to provide separate treatment facilities, it is desirable for the City to be involved in the facility planning to ensure that common facilities can be expanded to enhance the industrial development potential in Seldovia, and that the industrial effluent will not adversely affect fisheries or use of the bay as a source for seafood process water.

BOAT PUMP-OUT FACILITIES

Federal regulations require installation of a grinding device or holding tank on all new vessels with toilets offered for sale after January 30, 1977. Stricter discharge standards for grinding devices go into effect January 30, 1980.

Since construction of boat pump-out facilities would be financed by a user charge system and since the regulations do not restrict discharge of untreated sewage from vessels beyond a three-mile limit from shore, it appears construction of boat pump-out facilities would not be economically feasible at present.

Should regulations change and the City be required to provide pump-out facilities, the existing gravity sewer fronting the harbor on Main Street is available to handle wastewater pumped from the vessels in the boat basin.

SEWER EXTENSIONS WITHIN THE PLANNING AREA

As discussed elsewhere in this report, population within the study area is projected to increase from approximately 500 at present to 913 by the year 2000 if the intermediate growth rate is realized.

Within Seldovia, the most likely areas for development are in the vicinity of the school on the north side of the City and the East Addition area southeast of the Seldovia Slough (see Chapter 5).

A recent request for a State grant to fund construction of sewer collectors for the East Addition was turned down. State policy apparently is to withhold funding of any additional sewer lines until plans for the proposed sewage treatment plant are more definite. A review of the grant eligibility of the

sewer and pump station construction discussed in the Draft Facility Plan may identify increased levels of funding which may be available if this construction is included with the sewage treatment plant project.

The other large area within Seldovia that is unsewered is the northeast portion of the City, generally lying east of the school and north of Malcolm Street. Construction of sewers in this area would make considerable land available for development, particularly the two potential high-density residential sites along Anderson Way, discussed in Chapter 5, pages 5-16 and 5-17.

Sewer extensions to serve both of these areas must be constructed prior to or in conjunction with new development in these areas. Planned routes of the actual extensions are shown in Figure 9-1 and the Draft Facilities Plan (Tryck, Nyman & Hayes, 1978).

As noted in Chapter 5, the limited amount of developable land within the City is expected to generate increased pressure for growth outside the present city limits. Lands within the planning area which were identified as being available for development are north of the City, along the Seldovia-Jakolof Bay Road and southeast of the City within, and west and south of The Fish Creek drainage basin. Because of severe soils and groundwater limitations, a considerable portion of these developable areas would require non-septic sewage disposal. Figure 9-2 designates three general areas, A, B and C, within which sewer extensions would need to be made. Areas A and B, north of the City, are approximately 120 acres each. A report by the U.S. Geological Survey (Nelson and Dauskin, 1979) indicates that the depth to bedrock within these area (along the Seldovia-Jakolof Bay Road for $1\frac{1}{4}$ miles north of the city limits) is three to four feet near Seldovia Point, where the Jakolof Bay Road turns east, depth to bedrock along the roadway increases to 10 to 18 feet for $1\frac{1}{2}$ miles east of Seldovia Point.

The soils information contained in the U.S. Geological Survey report is based on a limited number of test pits along existing roads. Subsurface conditions elsewhere may vary considerably from the general patterns noted in the report.

For purposes of planning, it is assumed the presence of shallow bedrock will prevent use of conventional septic tanks and greatly increase costs of any gravity sewer construction within Areas A and B as shown in Figure 9-3.

One possible method of providing sewage disposal in Area A is by constructing a pressure sewer system which would discharge to the proposed City treatment plant to be sited either at the northwest corner of the City of at Gray Cliff. A pressure sewer system is comprised of a small pump which discharges sewage collected from one or several houses to a force main or shallow gravity sewer.

Soils within Area B northeast of Lake Irene are also generally underlain by shallow bedrock, precluding septic tank installation. A pressure sewer system within Area B could discharge either to the City treatment plant, if it is sited at Gray Cliff, or to a community drainfield located on suitable land north of Area B. Soil conditions in the vicinity of Seldovia Point will generally allow use of septic tanks for low density (one unit/acre) residential development.

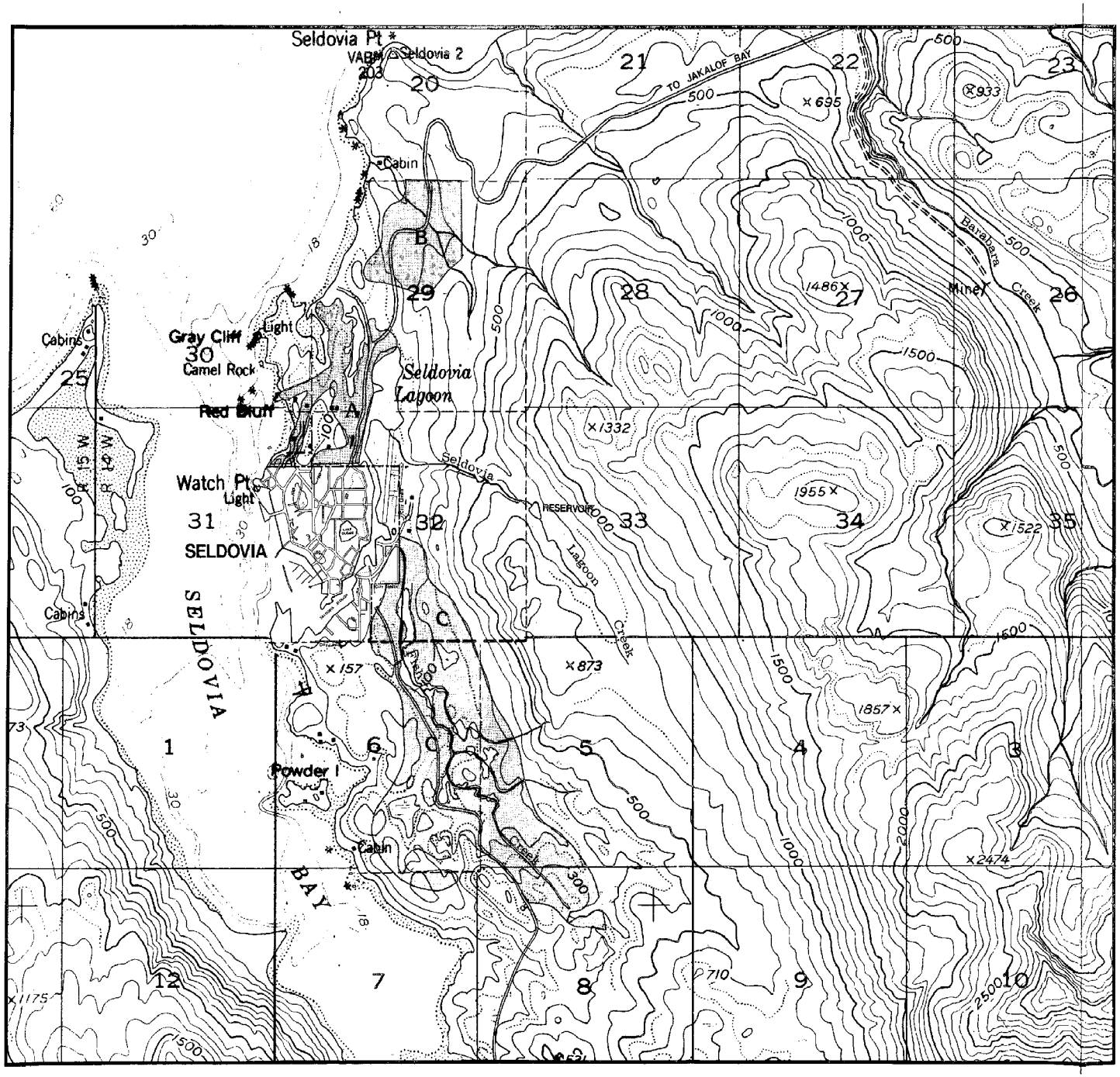


Figure 9-3

Sewer Extension Service Areas

Potential development areas outside city requiring sewer connections*

*"AREA C" AS SHOWN WOULD BE FURTHER REDUCED IN AREA BY ENACTMENT OF 300 FOOT STREAMZONE BUFFER ADJACENT FISH CREEK.

SCALE IN FEET
0 500 1000 2000 3000

SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

Pressure sewers are generally more economical to construct in conjunction with high density developments, such as mobile home parks, than as piecemeal extensions to individual properties. Consequently, low density development within Areas A and B may not be economically feasible if ground conditions preclude installation of septic tanks.

Grant funds are generally not available for extending sewer service into undeveloped area; however, if sufficient pressure for development in Areas A and B occurs, a Utility Local Improvement District (ULID) could be formed and all benefiting properties asesssed for the system costs. The higher operation and maintenance costs of a pressure sewer system could be partially offset by standardization of parts and local availability of spare parts and service.

Area C, Figure 9-3, designates developable land within the Fish Creek Basin. Shown is that area which would likely require storm drains and city sewers. Any development here would be subject to the restrictions discussed in Chapter 6. As long as the City uses the Fish Creek Reservoir, any upstream development would necessarily require non-septic disposal, as well as location and setback restrictions consistent with the Watershed Management Plan.

FINANCING EXTENSIONS TO THE COLLECTION SYSTEM

As new construction takes place within the City, it may be necessary to extend the existing system to provide sewer service to currently unsewered areas. One method of financing sewer construction is by Developer Extension Agreement, whereby the developer agrees to bear all costs of design, construction and inspection, and turns ownership and maintenance of the completed work over to the City. Much of the new sewer construction in Seldovia could be by developer extensions to the existing system.

A second method of financing new sewer construction is by Utility Local Improvement District (ULID). The City finances the work by selling bonds and recovers its costs by assessing benefitting properties over a 10 to 15 year period. ULID's are generally created for larger scales of construction and could be established for sewer construction in the northeast and East Addition sections of Seldovia.

Another method of financing sewer and treatment plant construction is by revenue bonds backed by the operating revenue of the utility system. Alternatively, bonds can be "general obligation", (backed by the taxing power of the City). General obligation bonds are most commonly used to finance projects which benefit the entire population within the City and which usually are not revenue producing, such as schools and parks. They would therefore not be appropriate for sewer extensions.

An additional method of financing for construction of new sewer facilities is Federal and State grant and loan funds. Generally, the grant or loan covers less than 100 percent of the project cost and the balance of the cost is funded locally by bonds or assessments.

As discussed in the Annexation section of Chapter 10 (Local Government), analysis of the cost of services and projected revenues is often a helpful tool

to deciding upon proposed annexations. Additional planning considerations could include checking capacity of existing sewer facilities to accommodate increased flows. In some instances, where future development is likely, it may be desirable for the City to assume a portion of the cost of sewer construction in order to provide increased line size or pump station capacity to avoid later duplication of costs.

City costs of providing reserve capacity can be recovered by "latecomers" charges assessed as property subsequently is developed and connected to the sewer facility.

Solid Waste

The new sanitary landfill is located south of Seldovia, just opposite an artifically filled berm, constructed on a ridge separating the landfill from the primary tributary headwaters of the Fish Creek Watershed. Although it appears that adequate protective measures have been undertaken in preventing contamination of the adjoining Fish Creek Watershed, monitoring of the creek headwaters would assure that no seepage of contaminants has occurred across the narrow watershed boundary.

Coordination with the Borough is required to determine if wastewater treatment plant sludge can be disposed of in the landfill. If the sludge can be disposed of in this manner, subsequent determinations of water content and level of sludge treatment need to be made. As discussed in the wastewater section, this information will influence the treatment scheme selected.

Electrical Power

Additional maintenance is required along the current China Poot to Seldovia power transmission lines to prevent additional power interruptions. Because of vegetation growth within the right-of-way, as previously mentioned, additional cutting of trees is required to eliminate the dangers posed through falling trees and blowing limbs.

It would be desirable, through communication with the Homer Electric Association, for the City to arrange for even cutting within the right-of-way alignment. Ultimately, the undergrounding of the transmission lines would increase service reliability and allow revegetation of the existing swath. This action would provide a future alternative to the existing network.

Gravel Source

In addition to water and sewer improvements discussed in this section, a City-owned gravel pit could substantially reduce public construction and maintenance costs. The community desires ownership of a gravel pit to provide a cost effective alternative to the existing use of the State owned pit. The City will need to study the cost feasibility of acquiring property to be used as a local gravel source. Particular attention needs to be paid to siting such an operation so as to minimize transportation costs.

Standards For Public Works Construction

In order to assure quality and minimize future capital and maintenance costs, the City can adopt materials and workmanship standards for public works construction within the city limits. Standards for public works construction would become especially important should Seldovia experience a high growth rate resulting from offshore oil production or other economic development activities.

Basic references for establishing Public Works Standards include Standard Specifications For Municipal Public Works Construction, published by the American Public Works Association (APWA), Washington State Chapter, and Standard Specifications For Road And Bridge Construction, published by the Alaska Highway Department. These basic standards could be modified as required to meet local conditions and provide specific information regarding type of materials to be used, standards of workmanship, standard details, procedures for design, inspection and acceptance, and warranty provisions.

PLANNED SOLUTIONS

Because of the interrelatedness of water system development with watershed management alternatives, specific policies and actions which follow are necessarily tied to the planned solutions outlined in Chapter 6, (Municipal Watershed Management). Other policies and actions relate to sewage disposal, electrical power and solid waste disposal, and like water system development, are comprised largely of specific measures required to achieve desired goals and objectives for specific facility improvements.

OBJECTIVE: Provide adequate water supply and distribution facilities to all customers within the city limits.

POLICY: Water system improvements will emphasize orderly, efficient development, affordability and adherence to basic construction standards.

ACTION 87: The City shall establish public works standards for extensions and improvements to the water system.

ACTION 88: Extend 10-inch line on Winifred Way to complete loop across north side of City. A route south along Winifred Way is recommended if reservoir is not constructed in U.S. Reserve.

ACTION 89: 10-inch main construction of "C" Street, Augustine Avenue and across Seldovia Slough to provide service in the growing East Addition in the southeast part of the City.

ACTION 90: Construct 8-inch main on Anderson Way between Malcolm Street and Alder Street.

ACTION 91: Install telemetry to monitor and control, at a minimum, the following parameters: reservoir level, pump status and system pressure

ACTION 92: Study cost-effectiveness of water meter installation and protection of services from freezing to reduce water wastage and, consequently, reduce water system capital and operation costs.

OBJECTIVE: Improve consistency in availability of quality drinking water on a seasonal basis.

POLICY: Water sources will be managed to retain present water quality as long as they may be needed for present or potential use. Improvements will be sought to provide lasting relief to quantity and quality problems.

ACTION 93: The City will install, maintain and the State will monitor the effectiveness of a water filtration and chlorination plant at the Fish Creek source (action repeated, Chapter 6).

ACTION 94: Determine minimum design flow of Fish Creek to establish its suitability as a long-term source for the Seldovia water system.

ACTION 95: Complete cost-effectiveness study of alternate concepts for water system supply and storage.

OBJECTIVE: Provide reliable water storage capacity to meet fire protection, equalization and standby requirements.

POLICY: Water system improvements will emphasize increasing capacity and reliability at least cost.

ACTION 96: Construct additional storage, minimum of 500,000 gallons.

ACTION 97: Explore feasibility of deepening or relocating existing reservoirs. Implement most feasible alternative.

OBJECTIVE: Provide sewage treatment meeting all applicable State and Federal requirements at an affordable cost.

POLICY: Sewage treatment capabilities will be obtained which are most consistent with regulatory, environmental, cost effectiveness and affordability needs of Seldovia.

ACTION 98: Evaluate additional sludge disposal options, and revise treatment facilities equivalent annual cost analysis if a different sludge disposal option is selected.

ACTION 99: Evaluate options for separating seafood processing wastes from domestic sewage in conjunction with sewage treatment plant facility plan.

ACTION 100: Finalize sewer facilities plan.

ACTION 101: Construct sewage treatment facility.

ACTION 102: Rehabilitate existing sewage pump stations.

OBJECTIVE: Obtain municipal ownership of a gravel or crushed rock source.

POLICY: The City will pursue ownership of economical gravel source.

ACTION 103: The City will study, with the Seldovia Native Association, options for reconveyance of land, containing gravel source, to City ownership.

ACTION 104: The City will determine availability of gravel source on Federally owned property, and determine requirements for obtaining a possible use permit.

OBJECTIVE: Provide municipal sewer service to all existing residential and commercial buildings within the city limits.

POLICY: Sewer service extensions will be accomplished to minimum standards using own sources, grants, loans, and private contributions where private benefits will be created.

ACTION 105: Establish Public Works Standards for extensions to the sewer collection system.

ACTION 106: Require developer extensions to the existing collection system as required by new construction.

ACTION 107: Provide sewer construction in East Addition.

ACTION 108: Perform sewer and pump station construction in northeast section of City.

ACTION 109: Evaluate impact of seasonal flow variations due to winter water wastage and summer population and boat influx on wastewater treatment processes discussed in the Draft Facility Plan.

OBJECTIVE: Assure availability of standby electric power.

POLICY: Consideration of availability of adequate, dependable electrical power will preclude applicable zoning decisions and development restrictions.

ACTION 110: The City Council shall pass resolution, allowing continued use of power facility site within currently zoned classification.

ACTION 111: Request Homer Electric Association to maintain operation of Seldovia Power Plant.

OBJECTIVE: Lessen visual impact, and power interruptions, from electric power line and utility cooridors.

POLICY: The City will maintain an active role in monitoring power failures, contributing to determining causes.

ACTION 112: The City Council shall pass resolution outlining increased maintenance desired within the main line transmission cooridor, addressed to the Homer Electric Association.

ACTION 113: The City shall instigate cost analysis of undergrounding transmission line.

OBJECTIVE: Assure availability of environmentatly sound solid waste disposal services.

POLICY: Assurance of sound and adequate solid waste disposal will prevent long-term environmental damage.

ACTION 114: The City shall provide continued cooperation with the Borough in determining sludge and solid waste disposals needs.

ACTION 115: The City shall monitor and determine possible contamination of watershed water supply resulting from solid waste transport and disposal.

Chapter 10
Local Government

Provision of the wide range of public services and facilities improvements desired by the community's residents is an important step in implementing goals and objectives of the comprehensive plan. Many service demands are placed on local governments, yet most local governments face severe restraints in financial resources and legal authorities to meet these demands.

Seldovia's local government faces these problems, as do many other local governments. Three pressing areas of concern include: the acquisition and management of financial resources, methods of extending public services to newly growing areas which are presently outside of city limits, and alternatives for the Seldovia Native Association, Inc.'s land reconveyance to the City of Seldovia under terms of the Alaska Native Claims Settlement Act of 1971. This chapter addresses these three areas.

ISSUES, GOALS AND OBJECTIVES

During the course of development of this comprehensive plan, issues, goals and objectives relating to organization of Seldovia's local government were formulated. Issues include:

(1) The City has had increasing deficits in its General Fund balance.

(2) The City has had difficulty meeting grant-in-aid requirements.

(3) Some aspects of the City's tax policies are inequitable.

(4) Some City enterprises are not self-supporting.

(5) The City has difficulty raising its own funds to match grant-in-aid requirements.

(6) City capital improvements are not scheduled, funded and regularly carried out.

(7) Rapid growth may create additional financing problems for City.

(8) Per unit costs of City services are high.

(9) City officials have difficulty balancing changing revenues, costs and service demands.

(10) Alternatives for ANCSA 14(c)(3) municipal reconveyances need to be analyzed.

(11) Methods of managing and extending services to unincorporated areas need to be analyzed.

The goal for local government which responds to this issue is:

GOAL: Equity and efficiency in local public (City) taxation and finance, with sound municipal financial health, quality public services to all residents, and provision for future needs of Seldovia.

Objectives specify what results must be accomplished for the goal to be realized. Objectives for local government include:

OBJECTIVES:

(1) Restore a healthy balance to the City's General Fund.

(2) Achieve compliance with grant-in-aid requirements.

(3) Improve equity of City tax policies.

(4) Make City-operated enterprises self-sufficient wherever possible.

(5) Improve ability of City to match grant-in-aid financial requirements.

(6) Improve planning, scheduling, financing and implementation of City capital improvements.

(7) Improve ability of City to manage and finance needed services for rapid growth.

(8) Reduce per unit costs of City services.

(9) Improve ability of City to wisely balance revenues, costs and public service demands.

(10) Achieve ANCSA 14(c)(3) municipal reconveyance which is fair to both Seldovia Native Association, Inc. and City.

(11) Explore and implement most cost effective and suitable method of extending public services to and development of unincorporated areas near city limits.

The following three sections address the attainment of objectives for municipal finances, ANCSA municipal reconveyances and annexation.

FISCAL ANALYSIS

One of the most significant problems facing many small cities is the financing of public services on a limited tax base. In Seldovia's case, urban renewal following the 1964 earthquake imposed an even greater strain by expanding the City's long-term debt to levels at which it is difficult to finance additional capital improvements. The purpose of this section is to briefly examine the finances of the City and discuss possible solutions to the City's financial problems.

Background

A total of nine major issues in local government relate to municipal finances. These are discussed in the paragraphs below.

GENERAL FUND DEFICITS

During the past several years, the City has had an increasing deficit in its General Fund at year end (see Figure 10-1 and Table 10-1). The reasons for this deficit are quite diverse and are identified further below. Deficits in the General Fund are of concern for several reasons. First, the General Fund is the accumulation of the City's "own source" revenue, and is the only reliable source of matching funds for State and Federal grants-in-aid. Second, deficits in the General Fund are often borrowed from grant funds, in violation of grant requirements. Third, General Fund revenues are the only fund revenues which are unrestricted and available to respond to emergencies or unexpected drops in revenues; deficits severely restrict the City's ability to respond to emergencies.

COMPLIANCE WITH GRANT-IN-AID REQUIREMENTS

In the last year, the City has had to reimburse some "restricted" (grant) funds with revenue from its General Fund because of violations of State and Federal Grant requirements. Difficulties have included failure to file required reports when due, failure to ensure that expenditures are allowable, and deficiencies in budgeting and spending actions.

TABLE 10-1
CITY OF SELDOVIA GENERAL FUND CHARACTERISTICS
REVENUES, EXPENDITURES AND FISCAL YEAR END BALANCES

FISCAL YEAR ENDING JUNE 30TH	REVENUES	EXPENDITURES	SURPLUS OR DEFICIT FOR YEAR	END OF YEAR BALANCE
1970	$117,129	$ 90,172	$ 26,957	($85,222)
1971	$129,635	$110,561	$ 19,074	($66,148)
1972	$130,008	$121,618	$ 3,390	($57,758)
1973	$127,335	$133,751	$ 50,902	($ 6,656)
1974	$134,720	$160,066	($ 25,346)	($32,002)
1975	$199,595	$172,592	$27,003)	($ 4,999)
1976	$219,582	$230,832	($11,250)	($16,249)
1977	$275,671	$287,766	($12,095)	($28,344)
1978	$263,323	$249,068	$14,255	($14,089)
1979	$467,857	$495,568	($27,711)	($41,800)
Average Annual Change	+20.3%	+26.1%		

* Note: Includes transfer of $57,318 of General Fund deficit to long-term debt.

Source: Arthur Young & Company, various years.

EQUITY OF TAXATION AND OTHER REVENUE SOURCES

Over half of the City's General Fund revenues are derived from the City's property and sales taxes. Other smaller, though significant portions are derived from shared state revenues, user fees and miscellaneous sources (Table 10-2). Some residents have raised serious questions about the equity of the City's financing; comparison with public finance principles suggests that reexamination of financial sources may be in order.

TABLE 10-2
SOURCES OF GENERAL FUND REVENUES
CITY OF SELDOVIA
1979

	AMOUNT	PERCENT OF TOTAL
State of Alaska		
Shared Revenues	$30,301	6.5%
Alaska Business License Tax	$ 4,582	1.0
Electric & Telephone Tax	$ 3,861	0.8
CETA	$45,270	9.7
Raw Fish Tax	$ 1,151	0.2
Liquor Licenses	$ 3,300	0.7
Road Contract	$95,000	20.3
Miscellaneous	$22,920	4.9
Dock Revenues		
Ferry Contract	$13,800	2.9
Wharfage & Handling	$ 5,024	1.1
Commissions	$ 5,287	1.1
Building Rent	$ 6,264	1.3
Other	$12,611	2.7
Sales Tax	$26,547	5.7
Property Taxes	$86,929	18.6
Sewer Property Tax & Assessments	$12,223	2.6
Small Boat Harbor	$30,524	6.5
Building Permits	$ 2,417	0.5
Sewer Use Fees	$18,078	3.9
Business Licenses	$ 820	0.2
Building Rent	$ 1,343	0.3
Interest & Penalties	$ 1,478	0.3
Miscellaneous	$20,866	4.5
Transfer From Special Revenue Funds	$17,261	3.7
TOTAL REVENUE	$467,857	100.0%

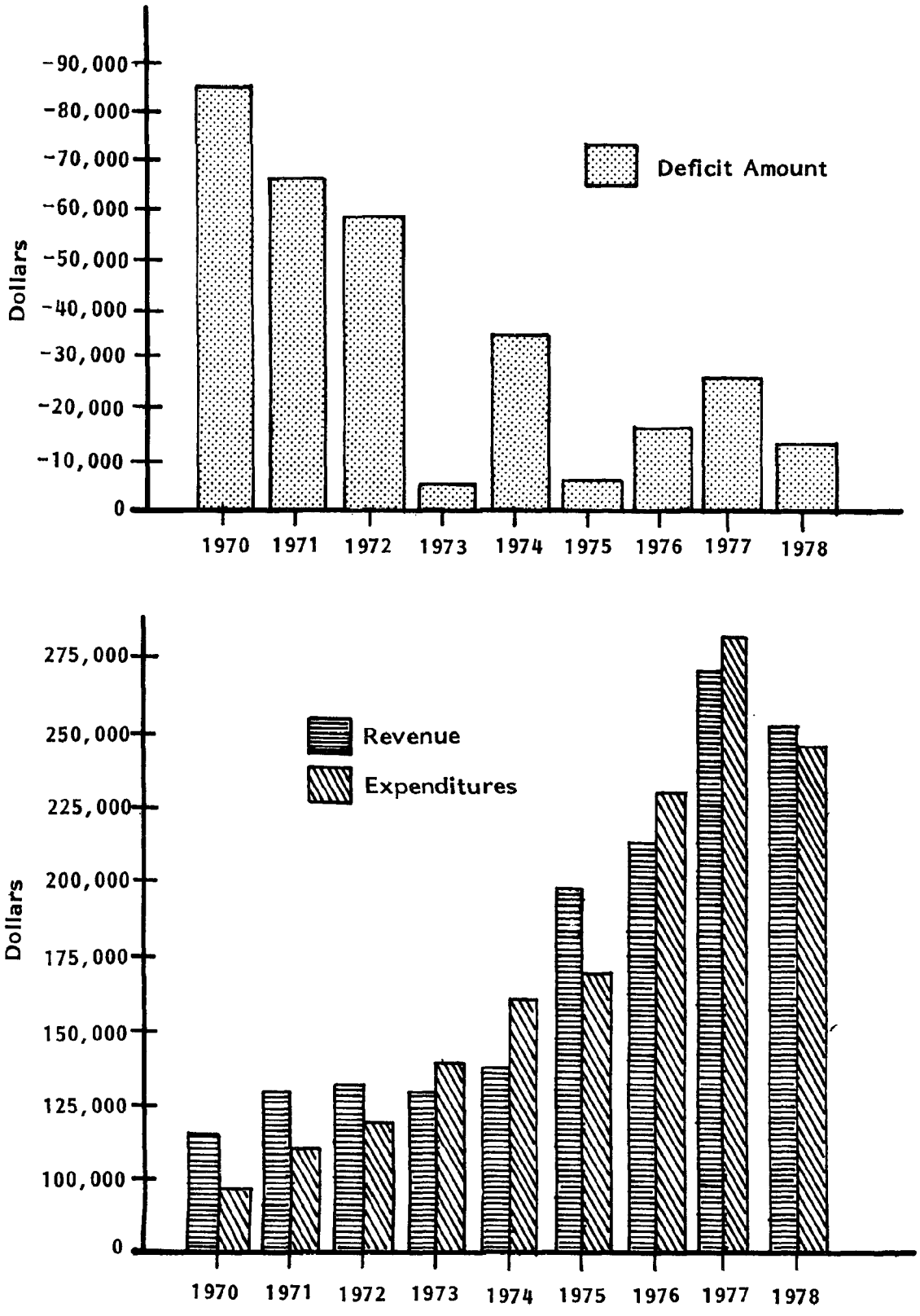
Source: Arthur Young & Company, 1979

A basic principle of public finance holds that taxation should be based on either ability to pay or on benefits received (Aronson et.al., 1973). General property taxes are often criticized on two bases. The first is that property taxes tend to fall more heavily on lower income households and therefore violate the first part of the principle. In addition, some property taxes are used to finance services not received by all (for example, sewer lines), violating the second part of the principle.

FIGURE 10-1

YEAR END GENERAL FUND BALANCES
AND YEARLY REVENUES AND EXPENDITURES

CITY OF SELDOVIA



It should be noted, however, that cities are strictly limited by Alaskan law as to both methods and allowable rates for raising revenues. Further, in some cases, long-term committments have been made where capital improvements have been financed. For these reasons, changes in financing approaches may be taken only on an incremental, step-by-step approach.

OPERATION OF CITY ENTERPRISES

The City operates a number of services on an enterprise or service-for-fee basis. In some cases, rates charged for the service are less than the total costs of providing the service. While direct costs are usually recovered, the rates or fees set often do not include allowances for overhead costs (such as administration or depreciation of equipment used). In effect, then, these services are subsidized by other City revenues.

Related to this issue is the question of sizing public facilities such as sewage treatment plants or water storage reservoirs. Since much of the potential development under the intermediate and high growth scenarios may occur outside of present city limits, the City will likely be faced with new, additional demands for its services from residents of unincorporated areas. Hence, sizing facilities and setting rates for services will depend on the City's stance regarding extension of services to unincorporated areas.

RAISING "OWN SOURCE" (CITY) FUNDS TO MATCH GRANT-IN-AID REQUIREMENTS

Owing primarily to General Fund deficits discussed above, the City has had great difficulty raising and allocating funds from local sources to serve as a local "in kind match" or contribution to carry out projects funded with State and Federal grants-in-aid. As a result, a number of opportunities to secure outside funding to meet local needs have had to be foregone.

FUNDING CAPITAL IMPROVEMENTS

Currently, the City does not regularly allocate General Fund revenue to a capital improvement budget, aside from a reserve fund for dock replacement. Without a regular set-aside of funds to finance replacements and new facilities, the capital improvements have had to be financed primarily out of a few grant-in-aid sources available to the City. Again, this predicament contributes to the difficulty of financing and carrying out capital improvements.

CASH FLOW AND FINANCING DIFFICULTIES ASSOCIATED WITH RAPID GROWTH

Although Seldovia has not experienced rapid growth recently as have other areas of the Borough, achievement of either the intermediate or high growth scenarios could create additional financial problems for the City. If growth is rapid, major expenditures will probably be needed to finance needed services before sufficient new revenues are available. In some cases, such as when industrial or residential development occurs outside of the city limits, needed revenues may not catch up with added demands for public services for a decade or more.

HIGH PER-UNIT COSTS OF PUBLIC SERVICES

The City also faces high per-unit costs of providing many City services. High transportation and construction costs are typical in Alaska due to the

State's remote location and seasonally harsh climate. Two other factors, however, combine to push Seldovia's costs above even Alaskan averages (Table 10-3). First, spreading fixed costs of many services among Seldovia's relatively small population tends to increase per-unit costs. Second, some services (particularly water service) have no conservation inducements in their fee structures. Consequently, per-resident use often is high even during periods when additional use is not needed (such as spring, summer and early fall, when water freeze-up is not a problem).

BALANCING CHANGING REVENUES, COSTS AND SERVICE NEEDS

Since many of the sources of revenue and expenditures are variable and difficult to accurately predict, the City Council, Mayor and administration have had great difficulty planning for the City's financial needs. In addition, the City Council and Mayor have had difficulty ensuring that actual expenditures for City functions are in keeping with adopted budgets.

Possible Solutions For Fiscal Issues

A wide range of possible solutions can be employed by the City and the Borough to achieve public finance objectives. This section describes possible solutions corresponding to each objective.

RESTORING A HEALTHY BALANCE IN THE CITY'S GENERAL FUND

Several types of actions could improve the health of the City's General Fund, these include:

- o Decreases in expenditures;
- o Increases in "own source" (locally generated) revenues;
- o Increases in revenues from State and Federal sources;
- o Improved short and long-range financial planning; and
- o Improved control of budgeted expenditures.

According to the U.S. Department of Commerce (1977), fiscal year-end cash and security holdings of Alaskan cities averaged $663 per resident in 1977; the U.S. average was $351 per resident. Based on these averages, Seldovia should seek to attain year end General and Capital funds balances of at least $150,000 to $250,000. This figure can include liquid, or easily sold, securities which can provide the City a cushion against unexpected changes in revenues or expenses.

Decreases in current expenditures might be achievable in some areas of the City's operations, and are discussed in a subsequent section. Long-term debt payments, however, are much more difficult to change, and in fact are probably best considered a "given" when developing short-term financial plans.

Increases in "own source" revenues may occur as additional persons move to Seldovia, additional taxes of charges are imposed, or additional area is annexed to the City.* Each is subject to limitations imposed by State law,

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* If additional area is annexed, services will need to be provided to the newly-annexed area in proportion to taxes levied, and the City will incur additional costs. If, however, many of these services are already provided without

TABLE 10-3
COMPARISON OF PER CAPITA REVENUE AND EXPENDITURES
OF SELDOVIA WITH THOSE OF ALASKAN AND U.S. CITIES UNDER 2,500 POPULATION
1976 - 1977

	SELDOVIA	ALASKA	U.S.
Revenues By Source			
From Federal and State Gov'ts.	$ 602.25	$ 601.27	$ 66.90
From Own Sources			
Taxes	$ 215.43	$ 300.31	$ 56.07
Charges & Misc.	$ 266.17	$ 209.76	$ 86.08
TOTAL REVENUES	$1,083.85	$1,111.34	$ 209.05
Expenditures By Function			
Education	-	$ 493.45	$ 3.40
Hospital & Health	$ 7.16	$ 14.07	$ 2.63
Public Safety	$ 39.94	$ 90.42	$ 28.46
Other Expenditures	$ 900.70	$ 573.75	$ 171.75
TOTAL EXPENDITURES	$ 947.80	$1,171.69	$ 206.14

Source: U.S. Department of Commerce (1977) and Arthur Young & Company (1977).

City ordinance and public opinion. As Table 10-4 demonstrates, however, City property and sales tax rates are among the highest in Alaska; hence, additional increases in rates are probably undesirable. Additional increases in taxing and other revenue-raising efforts, therefore, are unlikely to result in net additional revenues sufficient to restore the health of the General fund.

TABLE 10-4
COMPARISON OF CITY OF SELDOVIA TAX RATES
WITH OTHER ALASKAN CITIES

	Property Tax Millage Rate, 1978 (Mills)*	Sales Tax Rate, 1978 (Percent)
Seldovia	21.0	4.0
Homer	18.5	5.0
Kenai	18.1	5.0
Soldotna	15.7	4.0
Seward	18.0	2.0
Kodiak	16.1	3.0
Palmer	7.3	2.0
Dillingham	10.0	3.0
Valdez (Zone 1)	17.6	-
Cordova	18.0	4.0
King Cove	8.4	1.0
Yakutat	13.7	2.0

* Note: A tax rate of 20 mills is equal to an effective rate of 2.0 percent of assessed property value. Figures include Borough and special district levies where applicable.

Source: Alaska Department of Community and Regional Affairs, 1979.

State and Federal revenue sources might be increased if the City is able to compete effectively with other cities for grant-in-aid funds and has sufficient financial resources to "match" grants-in-aid to meet State and Federal requirements. This approach would require investment of additional funds and effort to locate, obtain and successfully manage grant programs, and would need to be combined with other approaches to succeed in meeting the City's objectives.

The major action which the City can undertake is to institute improved financial planning, budgeting and expenditure control measures. Currently, city budgeting and financial management is only short-range oriented, and does not recognize prior and projected changes in the balances of each of the City's funds. These are represented by steps one through four in Figure 10-2.

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charge to unincorporated areas, a net surplus of revenues would result. The annexation analysis section later in this chapter describes a method for determining the fiscal impact of possible annexations.

FIGURE 10-2
ELEMENTS OF CITY FINANCIAL
PLANNING, BUDGETING AND MANAGEMENT SYSTEM

ELEMENT	DESCRIPTION
1. Preliminary Budget	Prepared by City Manager, summarizes trends, expected changes in revenues, expenditures and fund balances for last year and following years. Summarizes by function.
2. Adopted Budget	Action taken by City Council, approved by Mayor. Specifies only functional catagories (streets and roads, health, etc.).
3. Administrative Budget	Prepared by City Manager for Mayor and City Council. Specifies functional categories and individual line items. Serves as basis for monthly and quarterly summary reports during fiscal year, and financial audit.
4. Monthly Budget Reports	Prepared by City Manager for Mayor. Summarizes revenues, expenditures and encumbrances for period, year to date, compares with budgeted and projected amounts. Serves as basis for control of expenditures, alerts of developing problems. Not distributed to Council except in a summary form.
5. Quarterly Budget and Financial Summaries	Prepared by City Manager for Mayor and City Council. Summarizes actual last year, actual year to date expenditures and encumbrances, revenues and changes in cash balances, compares actual with projected, and projects next fiscal year's operations.
6. Long Range Budget and Financial Plan	Prepared by consultant and City Manager for Mayor and City Council. Summarizes future operating revenues and expenses, existing debt service, recurrent capital expenditures, major capital expenditures, outside sources of financing, and financing requirements. Projects timing of capital improvements, used to examine impacts of major decisions and changes in external conditions (see Table 12-3).
7. Capital Improvements Program	Summarizes major proposed capital improvements, financing, timing. Prepared by consultant. (Example in this report, Figure 12-1).

FIGURE 10-3
EXAMPLE SHORT RANGE BUDGET FORMAT

	Previous Year		This Year		
	Budgeted	Actual	Proposed	Approved*	Next Year
Income					
Taxes					
Non Tax Revenues					
Enterprises					
Grants					
Other					
TOTAL INCOME					
Expenditures					
Operating Expenditures					
General and Admin.					
Police					
Dock & Harbor					
Sewer					
Garbage Collection					
Water					
Streets, Roads & Airfield					
Fire Protection					
Planning, Zoning and Code Enforcement					
Health					
Library/Community Center					
Existing Debt Service					
TOTAL OPERATING EXPENDITURES					
Capital Improvements Expenditures					
Total Expenditures					
Surplus (Deficit)					
Beginning Cash Balance					
Ending Cash Balance					

* Filled in only after final approval (by ordinance) of budget.

Note: Backup (working) documents summarize amounts by line item (detailed revenue and expenditure categories), and analyze past trends in revenue and expenditure categories.

Budgeting (i.e., the act of designating, by City ordinance, uses and disposition of revenues likely to be received) should include recognition of past, present and projected balances of individual funds. In addition, long-range, multi-year financial planning is needed to establish a sense of continuity and purpose to the annual budgeting process. Figures 10-2 and 10-3 describe the elements of a possible revised City financial planning, budgeting and management system.

COMPLIANCE WITH STATE AND FEDERAL GRANT-IN-AID REQUIREMENTS

The City Council could designate an individual or group (such as a council committee) to periodically review the progress of grant-funded programs to determine their compliance with grant requirements. If reviews are conducted frequently, there is much less chance of requirements being unmet or improper actions taken by the City. Granting agencies are normally willing to assist and answer questions, and are often willing to send field representatives to Seldovia upon request. In this way, agency staff can become an important source of assistance to City officials.

Given the significant number of grant, revenue sharing and contracting programs with which the City is currently involved, additional City staff would need to be hired if outside revenues and compliance with requirements are to be increased. Alternatively, consultants may in some cases be used to assist in preparing grant applications, planning and managing program activities and completing periodic evaluations of grant-funded activities.

RESOLVING INEQUITIES IN TAXING

Tax equity is best addressed in a step-by-step, rather than all-encompassing, fashion. As each major revenue or expenditure decision arises, equity can be considered as one criteria for making a choice. Three areas in which such decisions might occur are listed below.

One possible decision would be to consider instituting charges for capital costs of City-provided improvements for which only certain residents or property owners receive benefits. For example, residents who receive services of a new water line could be assessed part or all of the line's costs by forming a special assessment district (sometimes called a Local Improvement District, or LID). Service charges or hook-up fees can also be used. The size of charges can be based on either the value of benefits received or the amount of funds which need to be raised in addition to available grant and City capital budget funds.

A second possible example is where a service provides both direct and indirect services. If benefits are unevenly distributed, but all residents receive at least some benefit, (such as the medical clinic or recreation facilities), the revenue scheme could reflect this feature (e.g., combine user charges and general tax support).

Third, if usage by persons living outside of city limits (and therefore not paying general property taxes) becomes significant, dependence on the general property tax could be decreased, and financing could shift to methods which

would be more equitable. Possible alternative methods include higher service or user charges, increased sales taxes or formation of an areawide service district.

OPERATION OF CITY ENTERPRISES

Prices, user fees and service charges for City-operated or subsidized enterprises could be set according to who receives the benefits of it, how important the benefits are to general public welfare and how much the recipients can afford to pay. For example, sales of City-purchased materials (such as sewer pipe) for private use could be priced at cost plus a markup to cover administration, use of City equipment in handling the goods and risk. These charges could be based on existing or additional City finance records, such as personnel time sheets. Records could be developed for each enterprise or type of item sold indicating direct costs of materials, services, and equipment use, and indirect costs (labor overhead, borrowing costs, administration, depreciation, etc.). The City Council can establish rates based on the combined totals, with allowance of an additional margin for risk and even profit where deemed appropriate.

RAISING "CITY" FUNDS TO MATCH GRANT-IN-AID REQUIREMENTS

The major possible improvement towards solving this problem is, of course, to restore a surplus to the General Fund. This can only be accomplished by instituting financial planning and awareness in City Council budgeting processes, instituting tighter review and controls on expenditures to ensure that budgets are adhered to, improving grant compliance and carefully managing cash flow. One specific action, in addition to those mentioned above, might include: budgeting a certain percentage of General Fund revenue (say 10 or 15 percent) to a capital projects budget. This would establish a "savings" account for equipment replacement and could be available to match grant offers consistent with the City's capital improvement program priorities.

A second possible action would be to charge grants-in-aid with indirect administration costs (as has been done for CETA grants). Although rates vary, most grant programs allow a specific percentage of the budget to be allocated to the General Fund, rather than one of the restricted funds, to cover administrative costs. This revenue then effectively becomes "own source" revenue and is available to be used as a local match for other grants-in-aid.

Third, if major development appears likely, the City could negotiate with the developer(s) for advance payment of taxes to be used as "own source" funds for grants or loans needed to provide services to the project or its employees.

Fourth, rental or lease rates on City-owned facilities or lands could contain clauses indexing the rate to one of the federal price indexes (such as the Consumer Price Index for All Urban Workers). In this manner, rental or lease income will provide a more fair return on the City's investment.

Fifth, rate structures might be altered to encourage efficiency or conservation in use, and thereby reduce capital and operating costs. For example, water use might be on a fixed plus variable rate basis. The fixed rate would be set to accomodate the amount of water necessary to prevent winter freeze-up,

and the variable rate might apply only during low flow summer months when freeze-ups would not occur.

FUNDING CAPITAL IMPROVEMENTS

The major potential action which would improve the City's ability to schedule, finance and carry out capital improvements would be to establish a capital improvements fund and make regular allocations to it from the General Fund. This would provide a regular, available source of local matching funds for capital improvement grants. A target could be set for the annual appropriation in percentage terms, such as 10 or 15 percent of General Fund revenues.

Two additional elements could improve the financing of capital improvements. First, development and implementation of short and long-range financial plans and a capital improvement program (described earlier in this section and in Chapter 12) would provide improved continuity and direction to City financial management.

Second, capital improvement financing could also be improved by instituting greater cost sharing by residents benefiting from services (if identifiable) through user charges, utility hook-up fees and formation of special assessment districts. The following section describes additional financing methods.

FINANCING SERVICES NEEDED TO ACCOMMODATE RAPID GROWTH

As mentioned earlier, a variety of financing mechanisms are available to pay for new development. These include:

- o Prepayment of taxes by the developer to the City;
- o Hook-up fees for connecting to City services;
- o Co-development of facilities by City and private developers;
- o Direct loan or grant of funds by developer to City (to install services); and
- o Developer installation of facilities with dedication (transfer of ownership) to City.

Each of these mechanisms has been utilized in other areas. Since each features direct negotiation as a key element, it is important for the City to be in as strong a bargaining position as possible prior to entering negotiations. Major sources of influence, in descending order of importance, include:

- o Direct ownership of site by the City.
- o Extension of needed services to site (sewer, water, etc.).
- o Land use regulatory powers (these are avilable only through annexation or some forms of extraterritorial jurisdiction).
- o Alteration of financing mechanisms for developer (Dornbusch, 1976).

Prepayment of taxes is appropriate when revenues needed to finance services required by an industrial development or its employees will not be realized by the City for some time, and long-term financing is difficult for the City to obtain. Of course, the residences or businesses to be served must be within the taxing jurisdiction of the City; hence, this method is not appropriate for development outside of city limits.

Hook-up fees are appropriate for servicing development both inside and outside of city limits. The method is only appropriate for the few services (water, sewer, natural gas, telephone, power) for which fees are normally charged for the service. Hook-up fees are not appropriate for other types of services (police, fire protection, libraries, medical, roads, etc.) for which no fees are usually charged or for which use is difficult to measure accurately.

Co-development of needed facilities by the City and an industrial developer (such as an oil company) is appropriate for development of any public service inside or outside of city limits. An industry can work with the City to plan, finance and develop needed facilities.

Alternatively, the City can directly develop needed public services using grants or loans from the developer, or the developer can install needed facilities and services and dedicate these to the City for public ownership and operation. Care must be exercised, however, in negotiating such arrangements with developers to ensure that costs and revenues will balance over time, and that dedicated facilities are suitably constructed. Inability to levy property taxes and Alaskan statutory restrictions on services which cities may provide outside of municipal boundaries, however, make it imperative that negotiations be conducted carefully. If major development is likely to occur outside of city limits, annexation should also be considered. Dornbusch (1976) states:

> *A Community must have jurisdiction over sites for OCS support facilities in order to adequately guide that development. Consequently, when potential sites lie outside present city boundaries, annexation will be necessary.*

REDUCING HIGH PER-UNIT COSTS OF SERVICES

Several approaches can be taken to respond to high per unit costs. Some have been discussed in preceeding sections of this chapter or in other chapters of this report.

First, rates can be set to encourage conservation, or greater efficiency of use. Services which appear to be candidates for conservation efforts are primarily public utilities.

Second, joint use of facilities or equipment might be possible. For example, the City might lease construction equipment from private contractors on a daily rate if the rate times projected usage is less expensive than the cost of separately purchasing, insuring and maintaining the equipment. Alternatively, City-owned equipment could be rented when not in use.

Third, services can be extended to additional users (provided that the new users pay extension costs) to increase the number of users on public facilities. For example, per resident costs for the sewage treatment plant would be less if more users were hooked up to the system and sharing fixed costs. Care must be exercised, however, to ensure that attempts to expand the service area for one service does not adversely inpact the finances of other services.

BALANCING CHANGING REVENUES, COSTS AND SERVICE NEEDS

The best method of dealing with a changing financial environment is to improve city financial planning, budgeting and expenditure control systems. At a minimum, these should include the seven elements listed in Figure 10-2. An example long-range financial plan in shown in the Capital Improvements Program (Chapter 12). Financial planning is particularly important for small local governments such as Seldovia's, since it enables City officials to determine City policy on long-range considerations.

Where external conditions are changing rapidly, or service demands are growing, preparation and updating of this document gives the City a tool by which to measure the effects of varying city actions or policies, or to measure the effects of other decisions or events on the City (such as the possible impact of development of lower Cook Inlet oil fields). Long-range objectives can be established, giving city officials and others better ability to develop contingent plans and establish continuity.

Planned Solutions For Fiscal Issues

Based on the financial objectives noted earlier, appropriate policies and actions can be outlined. The following sections describe recommended actions to achieve city financial objectives. For sake of clarity, objectives are also repeated.

OBJECTIVE: Restore a healthy balance to the City's General Fund.

All of the five possible approaches outlined earlier will be pursued in order to achieve this objective. Of the five possible approaches, improved financial planning and expenditure controls will probably have the greatest long-term effect.

POLICY: The City will plan its financial affairs emphasizing a long-term financial strategy to achieve greater financial security as evidenced by its General Fund balance.

ACTION 116: Achieve decreases in expenditures by encouraging conservation in utilization of city services, encouraging joint use of facilities, use of special assessment districts for utility improvements.

ACTION 117: Increase revenues by:

(a) Expanding utility service areas where possible;
(b) Using appraisals and escalation clauses in leases of City-owned facilities;
(c) Setting enterprise rates or user fees to make enterprise self-sufficient if desirable and feasible;
(d) Increasing grant revenues from State and Federal governments (see Appendix E, Funding Sources).

ACTION 118: Improve financial management by instituting financial planning, budgeting and expenditure control methods (see Figures 10-2 and 10-3, this chapter, for example forms and additional information.)

ACTION 119: Increase General Fund revenues available to capital or grant-funded projects by charging grant or contracted programs (such as CETA) for indirect, administrative costs.

OBJECTIVE: Achieve compliance with grant-in-aid requirements.

Most of the actions discussed earlier could be applied to improve the City's compliance with grant requirements. Although each of these actions should help, the large volume of paperwork accnmpanying most grants-in-aid might make it advisable to add a grants administrator to City staff if grant activity continues at its previous high level.

POLICY: The City shall work to ensure that grant-in-aid requirements are met and that adequate checks and balances are provided in grant management.

ACTION 120: City Council designate an individual or group (such as a Council committee) to periodically review progress of City's grant-funded programs.

ACTION 121: Request periodic technical assistance from granting agency field representatives to determine compliance with grant requirements.

ACTION 122: Review grant management and compliance workload periodically, and hire additional staff or consultants to assist City Manager if needed.

OBJECTIVE: Improve equity of City tax policies.

Since many of the City's taxing, revenue and expenditure decisions carry with them multi-year committments and are tightly constrained by State and Federal law, tax policy decisions are best made gradually, on a case-by-case basis. It is important, however, to establish a sense of direction or desired objective so that tax policy decisions will have continuity. All of the possible solutions should be applied, although the extent to which each approach is utilized depends on the merits of each policy.

POLICY: Revenue, taxation and expenditure decisions will be based, at least in part, upon equity and benefits-received criteria.

ACTION 123: Consider possibilities of special assessment districts, hook-up fees and user charges when financing capital improvements which do not have general, community-wide benefits.

ACTION 124: Consider possibilities of grants, user charges, fees, use taxes, special service districts or annexation to finance services from which all area residents benefit.

ACTION 125: Improve tax equity on a step-by-step, case-by-case basis.

ACTION 126: Assure that taxes are applied equally to all (e.g., apply personal property tax to all major personal property, including boats).

OBJECTIVE: Make City-operated enterprises self-sufficient where possible.

Although an important objective for public enterprises, when

establishing financial policy self-sufficiency needs to be carebalanced with important public service needs of the community, administration costs and ability of those benefitted to pay fees.

POLICY: Rates and fees for each City-operated enterprise shall be based on who receives its benefits, how much recipients can afford to pay, and how easily benefits can be determined and costs assessed.

ACTION 127: Utilize hook-up fees, service charges and special assessment districts to pay part or all of local utility and road improvements.

ACTION 128: Utilize service charges, sales taxes, areawide service districts or annexation to finance services used by non-residents.

OBJECTIVE: Improve ability of City to match grant-in-aid financial requirements.

Each of the possible solutions outlined earlier can be employed to reach this objective. Given the rapid growth in the last decade of State and Federal grant-in-aid programs, increasing the City's own financial resources and financing mechanisms can have a major positive effect on the City's ability to carry out its capital improvement program and implement the comprehensive plan.

POLICY: The City will develop reserves of funds and financing mechanisms to enable it to meet matching requirements of State and Federal grant-in-aid programs.

ACTION 129: Allocate, through City's annual budget, a fixed percentage (such as 10 or 15 percent) of General Fund revenues to a Capital Projects fund.

ACTION 130: Negotiate with developers for advance payment of taxes for necessary capital improvements.

ACTION 131: Have private landowners benefitted by local streets and utility improvements share in part of cost through special assessment districts or hook-up fees.

Also see actions to increase General Fund revenues.

OBJECTIVE: Improve planning, scheduling, financing and implementation of City capital improvements.

Completion of this comprehensive plan and capital improvements program represents a major step towards achievement of this objective. Other steps outlined in the discussion of possible solutions can also be utilized.

POLICY: The City will endeavor to arrange to carry out its capital improvements program by providing regular allocations of General Fund revenues to a capital fund, obtaining grants-in-aid, and regularly updating the capital improvements program and financial plan.

ACTION 132: Establish and make regular allocations to a capital projects fund.

ACTION 133: Obtain grants-in-aid and loans consistent with the capital improvements program.

ACTION 134: Develop, maintain and regularly update financial plan and capital improvement program (see Chapter 12).

OBJECTIVE: Improve ability of City to finance needed services for and manage rapid growth.

Implementation of the above policies and actions would improve the City's ability to provide services to existing developed areas as well as accommodate some additional growth. Servicing rapid growth (such as may accompany OCS development), however, is another matter. Financing very great service needs from Seldovia's small existing tax base is impractical unless different financing mechanisms have been established. Each of the possible solutions outlined earlier could work in a different situation; what is most important is that the City utilize the approach which is most appropriate for the situation.

POLICY: The City will utilize special methods of financing public services to accommodate rapid growth, and will endeavor to utilize a method best suited to the needs which develop.

ACTION 135: Utilize prepayment of taxes if development is within city limits and the City has difficulty obtaining financing from other sources.

ACTION 136: Utilize hook-up fees for utility extensions inside or outside of city limits.

ACTION 137: Co-develop needed services if development is within city limits and the City has some type of ownership interest in the site and/or improvements.

ACTION 138: Have developer provide utilities, and grant or loan funds to the City, for other municipal services, when development is within or outside of city limits.

ACTION 139: Consider annexing likely development areas to adequately guide development.

OBJECTIVE: Reduce per-unit costs of city services.

Although many of the factors which contribute to the City's high per-unit costs of services are beyond the City's control (small size of community, remote location, difficult construction conditions, etc.), some measures can be taken to reduce costs without sacrificing quality of services.

POLICY: The City will endeavor to reduce high per-unit costs of public services with minimal sacrifices in desired quality of service.

ACTION 140: Set rates and user fees for public services to encourage conservation wherever feasible (for example, metering water use during non-freezing periods of year).

ACTION 141: Utilize joint use of facilities and equipment with other individuals and organizations in Seldovia wherever possible (for example, lease construction equipment from local private contractors).

ACTION 142: Make utility service area as large as economically possible to allow fixed costs of utility plant (reservoir, treatment plant, etc.) to be spread among as many users as possible.

OBJECTIVE: Improve ability of City to wisely balance revenues, costs and public service demands.

This objective can be met by implementing each of the financial planning solutions mentioned earlier. Much of the information needed to begin improved financial planning is contained in Figures 10-2 and 10-3 and in Chapter 12.

POLICY: The City will endeavor to improve its financial planning efforts to allow the City Council to base its financial decisions on firm knowledge of short and long-range implications of the decisions.

ACTION 143: Implement, utilize and maintain the financial planning methods outlined in Figures 10-2 and 10-5 and Chapter 12.

ALASKA NATIVE CLAIMS SETTLEMENT ACT MUNICIPAL RECONVEYANCES

The Alaska Native Claims Settlement Act (ANCSA) of December 18, 1971, provided, among other things, that 200 Native villages in Alaska would form corporations to receive title to Federal lands. Twenty-two million acres were selected by Alaskan village corporations in 1974. The total acreage selected by each village (except in southeast Alaska) ranged from 69,120 to over 161,280 acres, with most entitlements being either 69,120 or 92,160 acres. The Seldovia Native Association, Inc. will eventually receive more then 100,000 acres of Alaska Native Claims Settlement Act-authorized lands.

Section 14(c)(3) of the Act requires village corporations receiving land from the Federal government to transfer certain of those lands to various individuals, organizations and government agencies. The Act's three major provisions which pertain to the transfer of Seldovia Native Association, Inc. lands to the City are:

(1) The village corporation must transfer not less than 1,280 acres to the municipal government. This includes the surface estate of improved lands within the City which are not transferred to individual and non-profit organizations.

(2) The reconveyance should include as much land as required for community expansion, public right-of-way and other forseeable community needs. These lands can be outside the city limits if they are suitable to meet the needs of the City, and the total reconveyance may exceed 1,280 acres if conditions warrant.

(3) In addition to the 1,280 acres, village corporations are required to transfer title to the surface estates used for existing airport sites, airway beacons and other navigational aids. Additional acreage and/or easements which are necessary to provide services related to air transportation and to ensure safe approaches to airport runways must be conveyed.

Other than specifying a minimum quantity of land and referring to certain community uses, Section 14(c)(3) of ANCSA provides little guidance on what lands should be transferred.

Presumably, any of the lands which SNA has or will receive directly from the Federal government may be conveyed to the City with the approval of Cook Inlet Region, Inc., the regional Native corporation. The lands may be from the core township or any other township.

Possible Amendments To ANCSA

As of this writing, proposed Alaska National Interest Lands legislation (such as H.R.3651) would, if passed, amend Section 14(c)(3) of ANCSA. Added to the existing wording would be the following passage:

> *Unless Village Corporation and Municipal Corporation or the State in trust can agree in writing on an amount less than 1,280 acres, provided further that any new revenues derived from the sale of surface resources harvested or extracted from the land shall be*

paid to the Village Corporation, providing that the word "sale" in the preceeding sentence shall not include utilization of resources by the municipality or State in trust nor the issuing of free use permits.

This amendment would make it possible for the village corporation to reconvey less than 1,280 acres to the City if mutually agreed upon. It also says that revenues received by the City from the sale of timber from the reconveyed land must be paid to the village corporation.* The City could use the land itself (for community expansion purposes), or presumably could sell or trade the lands to obtain more desirable or suitable lands. This amendment essentially reinforces congressional intent that reconveyances be for public rather than private purposes.

Community Expansion Needs

No matter which provisions will apply, it will be advisable for SNA and the City to negotiate and agree upon a pattern of land transfer. The negotiations will likely center upon the City's existing and future needs for community expansion.

The City's land requirements for community expansion include lands for such uses as park sites, sewage treatment plant sites, airport expansion areas, and the like; these can be considered as basic public needs which only the City is likely to provide. Based upon growth projections for the City, land areas needed for specific "Basic" public use total 75.0 acres (Table 10-5).

TABLE 10-5
PROJECTED BASIC MUNICIPAL LAND OWNERSHIP NEEDS

USE	ACRES NEEDED
o Park lands	10.0
o Water source & associated wetlands	14.0
o Airport expansion	20.0
o Cemetery expansion	1.0
o Sewage sludge disposal site	5.0
o Sewage treatment plant	5.0
o Low income housing lands	10.0
o Gravel or crushed rock pit	10.0
TOTAL BASIC NEEDS	75.0

Source: Pacific Rim Planners, Inc., estimates.

The Seldovia Native Association does not have, nor is likely to receive, lands directly adjacent to the city limits. Assuming that the lands for the City's basic needs should be in or near the City, it is unlikely that the

* Whether the restriction on revenues from timber or other harvesting would apply to succeeding owners is unclear, and may only be settled through litigation.

City will receive any lands from SNA which it could use directly for community expansion purposes. However, the lands which are conveyed could be used by the City to trade or sell in order to obtain lands in or near the City for community expansion.

If this approach is to work, however, the land reconveyed to the City must be of such value that it is readily marketable, and the City's right to sell or trade reconveyed lands must be well established.

The lands best suited to satisfy the basic community expansion needs (outlined above) are located at the north boundary of the city limits. In this area, the lands are suitable for development (see Chapter 5). However, most of this land is presently in private ownership and would have to be obtained by the City.*

Reconveyance Alternatives

Three possible reconveyance approaches are outlined in the following sections. These are outlined in order to assist SNA in determining which approach would be most beneficial to both its own shareholders and existing and future city residents. The alternatives do not represent all possible approaches which might be conceived; indeed, should currently proposed Alaska National Interest Lands legislation be passed in the form of H.R.3651, many other reconveyance alternatives could be envisioned. The alternatives outlined in this section do, however, present fairly well the wide range of possible approaches which can be taken.

RECONVEYANCE ALTERNATIVE #1

The first alternative is one which has been proposed by Mr. Fred Elvsaas, President of Seldovia Native Association, Inc., in a letter dated June 26, 1979:

> *Other than the U.S. Reserve site, which SNA will automatically reconvey to the City of Seldovia, there are no native selected lands adjacent to the City boundaries.*
>
> *It is our feeling that the land encompassed in the S½ of Section 27, S½ Section 28, and all of Section 34, of Township 8 S, Range 14 Seward Meridian are the most logical lands for reconveyance. This is watershed land which feeds the primary source of City water, the upper reservoir.*

If this alternative were to be chosen, reconveyances to the City would be:

All of Section 34, Township 8 S., Range 14 W.	640 Acres
S½ of Section 27, Township 8 S., Range 14 W.	320 Acres
S½ of Section 28, Township 8 S., Range 14 W.	320 Acres
U.S. Reserve (in City of Seldovia)	10 Acres
TOTAL RECONVEYANCE	1,290 Acres

* The value of any lands conveyed would probably be less than comparable properties since the subsurface estate would remain in ownership of Cook Inlet Region, Inc., and additional restrictions might cloud title to the land.

The average slope of this land ranges from 17% to 38%. All of this land is on or above the 700 foot elevation level and ranges to 1955 feet (Figure 10-4). The major drawback to this proposal is that little of the reconveyance falls within the Upper Lagoon Creek Watershed. The area does, however, include a large part of the Barabara Creek Watershed, and could become important if the City chooses to develop Barabara Creek as a water source (see Chapters 6 and 9). Unless such development appears likely, this reconveyance alternative would appear to have little usefulness.

RECONVEYANCE ALTERNATIVE #2

An alternative which the corporation might consider is to reconvey to the City certain lands within Seldovia's Fish Creek Watershed. Although outside the City limits, the City has the right through Alaska Statutes to regulate land use within the watershed. Due to the environmental sensitivity of the Fish Creek Watershed and the fact that the City uses it for drinking water, there is likely to be little activity which can reasonably be allowed, at least in the near future. (See Chapter 6, Watershed Management). If portions of the Fish Creek Watershed lands were to be reconveyed, the conveyance would include:

All of Section 5, T. 8 S., R. 14	640 Acres
N ¼ of Section 8, T. 8 S., R. 14	320 Acres
N ½ of Section 9, T. 8 S., R. 14	320 Acres
U.S. Reserve (in City of Seldovia)	10 Acres
TOTAL RECONVEYANCE	1,290 Acres

With this reconveyance, and restrictions on land use in the watershed, Seldovia could better protect its water quality and supply needs. Other community needs, however, would not be met unless land trades were executed. Figure 10-4 shows this alternative.

RECONVEYANCE ALTERNATIVE #3

Another alternative which SNA may consider is to reconvey lands to the City which are suitable for development purposes. Figure 5-7 shows the lands around Seldovia which have the potential of being developed based upon slope, soils and access characteristics. The village corporation lands in this area which have the best potential to be developed fall mainly in the S½ of Section 21, T. 9S.,R.14. However, most of this area has previously been conveyed to SNA shareholders. Should the City receive this type of land it could (under the existing Section 14(c)(3)) trade or sell it for lands closer in for purposes of park development, utility requirements or other community expansion needs not met directly in this or other alternatives.

In addition to this land, the City could be reconveyed lands in portions of the Fish Creek Watershed to make up the minimum acreage. For this alternative the lands to be reconveyed would include the following:

All Section 5 except the NE¼ of the NE¼, T9S, R14	600 Acres
N½ of Section 9, T 9S, R14	320 Acres
NW¼ & NE¼ of NW¼ and the NW¼ of the NE¼ and the SW¼ and SE¼ of the NE¼ of Section 8,T 9S, R14	320 Acres
SW¼ of the SW¼ of Section 9, T 9S, R14	40 Acres
U.S. Reserve (in City of Seldovia)	10 Acres
	1,290 Acres

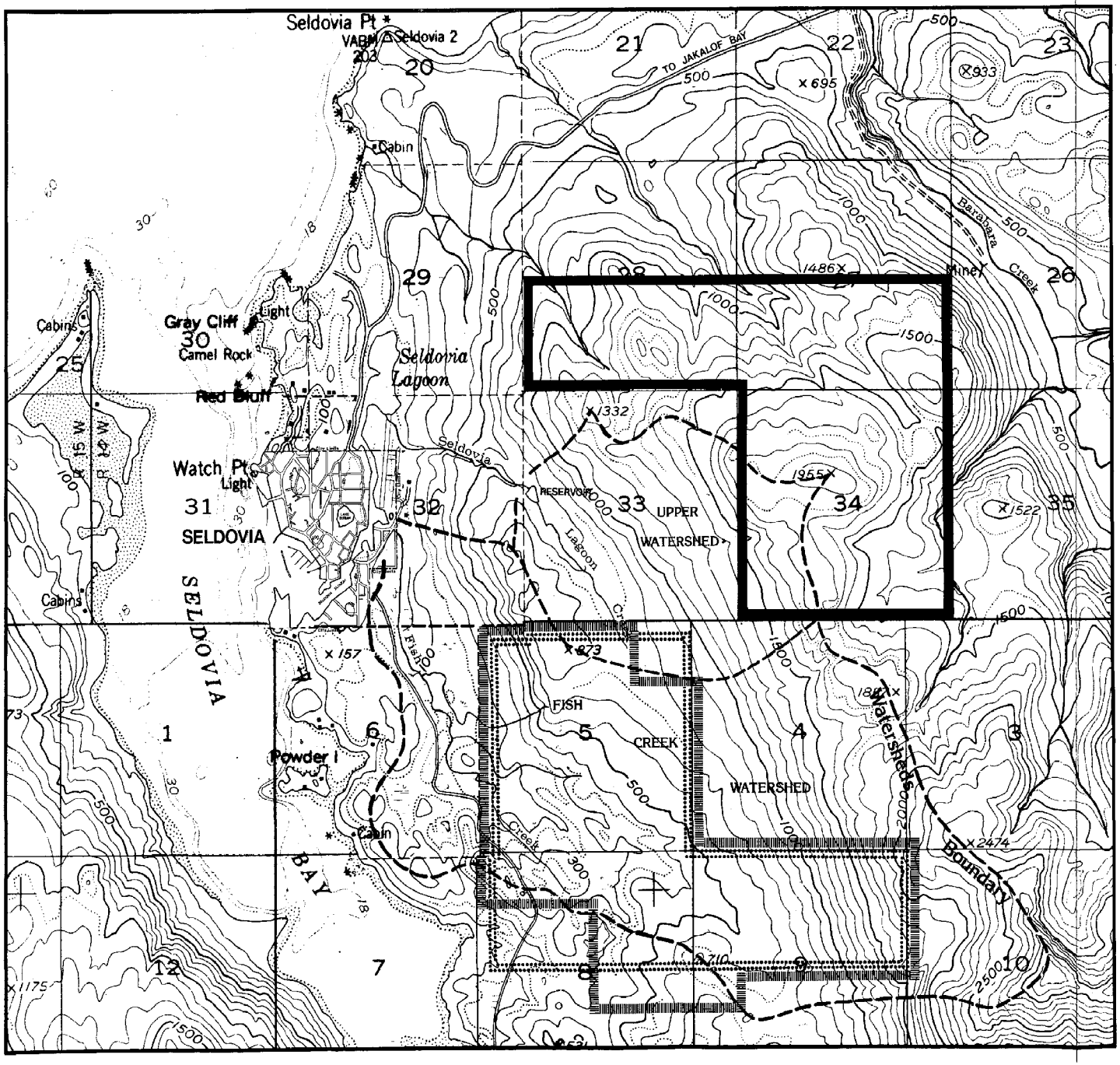

Figure 10-4

ANCSA 14(c)(3) Municipal Reconveyance Alternatives

ALT. 1 Seldovia Native Association Proposal

ALT. 2 Reconvey Watershed Lands

ALT. 3 Reconvey Developable Lands/Watershed

SCALE IN FEET
0 500 1000 2000 3000

SELDOVIA Comprehensive Plan

PACIFIC RIM PLANNERS, INC.

SUMMARY

The major drawback to these alternatives is that not all identified community needs can be met by a direct reconveyance of SNA lands which are available for reconveyance. The only way in which all community needs can conceivably be met is to convey lands which may in turn be needed or otherwise marketed by the City to obtain lands better suited for identified community needs. Jenks (1977) noted:

> *The Municipal Corporation and the Village Corporation have a joint, bilateral, and cooperative role in negotiating a settlement of lands which will be surveyed by the BLM and subsequently transferred from the Village Corporation to the Municipal Corporation.*

The interests of all parties would be best served by carefully selecting a reconveyance package which would directly or indirectly (through trades or sales) meet the identified community needs. Reconveyance of low-valued lands, on the other hand, would only deter the economic and social development of Seldovia; cooperation is essential to the achievement of a satisfactory solution.

ANNEXATION

Occasionally, growing communities extend their municipal boundaries to take in additional areas to finance the extension of public services to the area and manage the effects of the area's development. In Seldovia's case, the area within present city limits may be too small to accommodate projected growth if the intermediate or high growth scenarios are achieved; consequently, annexation of additional areas to the City may be a desirable means of both accommodating and managing Seldovia's growth.

Annexation, however, is often controversial, and its process and effects are poorly understood. The purpose of this section is to describe the process of annexation and discuss how possible annexations might affect residents of newly annexed areas, other residents and the operation of municipal government. Included in the discussion is an example method of analyzing the costs and benefits of annexation.

Background

Alteration of municipal boundaries is governed by State statutes and regulations. AS 29.68.010 establishes the Local Boundary Commission as the official State agency to establish detailed rules and standards consistent with legislative objectives, and to act as an administrative decision-making body for the Legislature (subject to some legislative overview).

The Local Boundary Commission is empowered with a broad range of authorities to review and approve of proposed local boundary changes, subject to the review of the legislature. The powers of the Commission can be summarized into three basic categories. First, it may establish procedures for annexa-

tions initiated by local action (i.e., by municipalities, boroughs or residents of areas to be annexed). These procedures are embodied in Title 19, Part 1 of the Alaska Administrative Code.

Second, the Commission may consider and decide upon any boundary change involving a particular area, provided that the change has been proposed by petition from any of the following parties:

- A municipality whose boundaries are to be changed or;
- An organized borough in which the territory is located;
- Ten percent of the qualified voters of the area;* or
- The Commissioner of the Alaska Department of Community and Regional Affairs (ADCRA), as provided in 19 AAC 10.020. Actions using this provision are referred to as having been initiated by State action.

A third basic feature is that decisions of the Commission take precedence over local decisions, without regard to priority in time, unless specifically reversed by the Legislature within the first 45 days of the session at which the change is proposed. This is an especially important feature, since it empowers the State to both initiate and decide on proposed annexations regardless of local preferences. Similarly, residents of an area theoretically could have the area annexed to a city or borough without the support of the local government's elected officials. In practice, however, such situations have occurred only infrequently.

Methods of Initiating Annexations

If a municipality desires to change its boundaries, it may initiate action by passing a City Council resolution directing the Mayor or City Manager to prepare and submit a petition to the Local Boundary Commission seeking annexation of a specified area. If the municipality owns the area to be annexed, and the area is contiguous to its corporate boundaries, the land may be annexed by municipal ordinance without the approval of the Local Boundary Commission.

If a resident of an area desires to have that area annexed to a city or borough, he or she may initiate the action by collecting the signatures of 10 percent of the qualified voters of the area on a petition approved in advance by the Local Boundary Commission (supplied by ADCRA), and filing the petition with ADCRA.

If an area is sparsely populated, or has a clear need for an organized municipality or borough, the Commissioner of ADCRA may initiate action by filing a petition with the Local Boundary Commission seeking annexation of the area to an existing municipality or borough, or creation of a new municipality or borough (AS 29.68.010).

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* If all qualified voters in an area to be annexed sign the petition, the annexation action may take place without an election. The Commission may also order an annexation without holding an election, as described later.

Procedures For Deciding On Annexation Proposals

For State or locally-initiated cases alike, the petitioner is responsible for serving a copy of the petition and supporting exhibits upon every municipality and borough affected, and for making the documents available for public inspection at a designated place in or near the territory to be annexed.

As staff of the Local Boundary Commission, ADCRA will then review the petition and exhibits for correct form and content, and may return them to the petitioner for correction prior to accepting it. Once the petition has been accepted, ADCRA schedules a public hearing on the proposal, and arranges for a public notice of the proposed action and hearing to be published in a local newspaper.

Affected residents of the areas proposed to be annexed, or of the borough or municipality affected, may file an "answering brief" to the petition with ADCRA prior to the hearing. The petitioner may file a "reply brief" to respond to any questions raised by the "answering brief". ADCRA also prepares a report to the Local Boundary Commission on the proposed annexation prior to the public hearing.

The Local Boundary Commission then holds the public hearing in or near the affected locality, and may subsequently decide on the proposed annexation by majority vote. Alternatively, the Commission may condition the approval on a majority vote of the qualified voters of the area proposed for annexation, or may decide to consider a different area.

If the Commission approves an annexation without a majority vote by qualified voters in the area to be annexed, the Commission must then present the proposed changes to the Legislature at the beginning of the next regular session. The changes become effective within 45 days thereafter unless disapproved by a majority of both houses.*

Standards Applicable To Proposed Annexations

Figure 10-5 summarizes the standards of the Local Boundary Commission pertaining to proposed annexations. The figure indicates that annexations must generally serve a public purpose, such as to extend needed services to a developing or potentially developing area. The standards differ, however, depending on whether or not the area proposed for annexation is contiguous to (i.e., abuts) city limits and whether or not the municipality intends to provide all municipal services supported by general taxes immediately. Contiguous areas may be annexed for a much wider range of reasons than non-contiguous area; consequently, proposed annexations of contiguous areas usually meet the standards of the Local Boundary Commission much more frequently than do proposed annexations of non-contiguous areas.

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* Annexation actions may also propose different taxation and services for annexed area ("step annexation"); such proposals must be submitted for approval by a majority of the voters in the area to be annexed (19 AAC 10.190, et. seq).

FIGURE 10-5

STANDARDS OF THE LOCAL BOUNDARY COMMISSION PERTAINING TO ANNEXATION OF UNINCORPORATED AREA TO EXISTING MUNICIPALITIES

STANDARDS PERTAINING IF THE AREA IS CONTIGUOUS TO THE CITY

(A) TERRITORY WHICH IS CONTIGUOUS TO A CITY MAY BE ANNEXED TO THAT CITY IF ONE OR MORE OF THE FOLLOWING STANDARDS ARE MET:

(1) All land to which the territory is contiguous is within the City's boundaries; or

(2) All land in the territory is wholly owned by the City; or

(3) The territory is urban in character. In determining whether territory is urban in character, the commission may consider, without limitation, whether the property is platted or held for sale for urban, residential or commercial purposes, whether the population density of the territory approximates that of the annexing City, whether the population of the territory stems primarily from actual growth of the City beyond its legal boundaries, and whether the property is valuable primarily by reason of its suitability for prospective urban purposes; or

(4) The territory is presently in need of a municipal service or services which the City can provide more efficiently than another municipality; or

(5) There is a likelihood that future growth and development of the City will occur within the territory and annexation of the territory will enable the City to plan for and control that development; or

(6) The health or safety of City residents is endangered by conditions existing or developing in the territory and annexation will enable the City to remove or alleviate those conditions; or

(7) The extension into the territory of City water, sewer, street, or other facilities, or of City policy, fire, health or other services is necessary to enable the City to provide adequate service to City residents; and it is impossible or impractical for the City to extend such facilities or services unless the territory is within the City's boundaries; or

(8) Residents of, or owners of property in, the territory receive or may be reasonably expected to receive the benefit of City services without commensurate tax contributions whether such services are rendered or received inside or outside the territory. In determining whether this standard is met, the Commission will consider alternate methods available to the City for offsetting the cost of providing services to individuals or property beyond its property taxation powers; or

(9) The annexation is otherwise necessary to accomplish a valid public purpose.

Source: 19 AAC 05.010(a)

STANDARDS PERTAINING IF THE AREA IS NOT CONTIGUOUS TO THE CITY

(B) TERRITORY WHICH IS NOT CONTIGUOUS TO THE CITY MAY BE ANNEXED TO THE CITY IF:

(1) All the land in the territory is wholly owned or leased by the City or used primarily for the performance of City functions; and

(2) Annexation is necessary to enable the City to achieve adequate control, protection or management of the property.

Source: 19 AAC 05.010(b)

(C) TERRITORY WHICH DOES NOT MEET THE [contiguity] *REQUIREMENTS OF* [19 AAC 05.010(a), shown at left].

May nevertheless be annexed to a City if such territory lies between the City boundary and territory which could be annexed under [19 AAC 05.010(a), shown at left] *but for the requirement of contiguity.*

Source: 19 AAC 08.010(c)

The majority of proposed annexations would probably be consistent with these guidelines. Indeed, most proposed annexations have not only been approved, but many have actually been increased in size in a manner which the Commission believed would better meet its standards. To some extent, this may represent a State (or legislative) position that more public services should be provided by local governments, and fewer by State agencies. Also, the State Legislature has indicated a strong committment to strengthen local governments, and apparently regards expansion of local boundaries by annexation as consistent with this objective.

The Local Boundary Commission often conditions its approval of proposed annexations on receiving assurances from the city or borough that residents and property owners of the area proposed for annexation will receive services in proportion to taxes paid. The city or borough has two options for satisfying this requirement:

(1) Full services equal to services provided other city residents may be provided immediately, in which case taxes must be levied at the same rate paid by other residents; or

(2) Full taxation may be phased in over a period of not more than five years, timed to coincide with phased extension of full municipal services to the area. For example, if fire and police protection cannot be extended immediately, this must be reflected by reducing the property tax millage rate and sales tax rates paid by residents of the annexed area until these services are available. This provision usually does not apply to services or facilities financed by user fees or special assessments, such as neighborhood streets and roads or water and sewer lines, since these are usually paid for directly by the residents of the area served.

State regulations also stipulate that if a city or borough fails to provide services to newly annexed areas as agreed, the Local Boundary Commission may revoke the annexation action and order the area detached from the city or borough. Figure 10-6 summarizes Local Boundary Commission regulations covering provision of municipal services to newly annexed areas.

Evaluation Of Proposed Annexations

The costs and benefits of annexation are often difficult to predict accurately without knowledge of future development of an annexed area. From an overall standpoint, annexation usually has more positive than negative effects. Certain individuals or groups, however, may be adversely affected if taxing, financing or expenditure methods are not carefully applied.

Three major categories of annexation impacts could be examined. These include:

(1) Direct effects on local government costs and revenues of providing services to the area;

(2) Social and environmental effects; and

(3) Indirect economic effects on local government and private parties.

FIGURE 10-6
SERVICE OBLIGATIONS OF MUNICIPALITIES TOWARDS NEWLY ANNEXED AREAS

STANDARDS PERTAINING IF THE ANNEXING MUNICIPALITY INTENDS TO PROVIDE FULL MUNICIPAL SERVICES TO THE ANNEXED AREA

No annexation will be approved unless the annexing city demonstrates to the satisfaction of the [local boundary] *commission that it is capable of extending and willing to extend services to the annexed area as follows:*

(1) Except in the case of [a step annexation, described at right], *full municipal services shall be extended to the annexed area immediately except where impossible for want of necessary capital facilities. Where full municipal services may not be provided immediately, the annexing city shall satisfy the commission that it will provide those services within a reasonable time;*

(2) Notwithstanding (1)...of this section [and step annexation, described at right], *annexation by a city possessing authority to establish and operate differential taxation zones may be approved if the commission is satisfied that the city is willing and able to use such authority to:*

(A) Provide the territory with such services as may be necessary; and

(B) Insure that the annexed area is not subjected to unfair taxation for services not available in the annexed area.

(3) The commission may conduct public hearings or investigations subsequent to the effective date of any annexation to determine whether the extension of services or taxation, and/or utilization of differential taxation zones, is proceeding in a reasonably expeditious and equitable manner. If the commission determines that the extension of services or taxation, and/or utilization of differential taxation zones, is not progressing in a reasonably expeditious and equitable manner, it may institute detachment proceedings under 19 AAC 02.050.

Source: 19 AAC 05.020

STANDARDS PERTAINING IF THE ANNEXING MUNICIPALITY DOES NOT INTEND TO PROVIDE FULL MUNICIPAL SERVICES TO THE ANNEXED AREA ["step annexation"]

An annexation petition submitted to the local boundary commission may request that during each of not more than five full fiscal years after the annexation takes effect, the rate of taxation for city services on the annexed properties shall be at a specified percentage of the full city tax rate. The proposal shall provide an increase from fiscal year to fiscal year until the percentage equals 100 percent of the full city tax rate. The city may not tax annexed property at a rate other than the percentage authorized for that year. Provided, however, that the municipality pursuant to AS *29.53.405 may levy taxes in the annexed area at a different percentage from that authorized for the year in question, if such difference is attributed to the cost of provision in the territory of a special service not supported by the general municipal levy.*

Source: 19 AAC 10.190

In the case of [a "step annexation"], *annexation will be approved only if the* [local boundary] *commission is satisfied that the city's plan for gradual extension of services is reasonably correlated with the gradual extension of taxation and provides for extension of full municipal services to the annexed area within the transitional period.*

Source: 19 AAC 05.020(b)

TAXES. The percentage of city taxes on newly annexed properties is determined as follow:

(1) City services to be provided during each year are scheduled by the petitioners of the local boundary commission in consultation with city officials;

(2) The cost of each service as a percentage of the gross general fund expenditure for the fiscal year immediately preceding the annexation is computed;

(3) Newly annexed residents pay a percentage of the full city property tax rate equal to the total percentage costs of all services provided.

ORDINANCES. City sales tax ordinances and all other city ordinances except those applicable to city services not yet provided are immediately effective in the annexed territory.

BOROUGH SERVICES. The city must accept immediate responsibility for non-areawide borough services currently provided in the newly annexed territory.

Source: 19 AAC 10.210(et.seq.)

Note: As 29.53.405 states:

Cities may by ordinance establish, alter and abolish differential tax zones to provide and levy property taxes for services not provided generally within the city or a different level of service than that provided generally within the city.

The purpose of this section is to describe a method for analyzing these effects for annexations likely to be proposed. An example analysis is also applied to a particular area.

ANALYSIS OF DIRECT COST-REVENUE IMPACTS ON LOCAL GOVERNMENTS

Cost-revenue impact analysis has been applied to a wide range of local government or private actions, and numerous techniques have been developed. Unfortunately, most types of analysis are complex, unwieldy and expensive to undertake, or are not well suited to analysis of annexation in Seldovia. Further, very little field testing has been undertaken to validate most of the methods. Consequently, the reliability of numerical estimates is not well established.

Four major factors should be considered when evaluating the direct costs and benefits of any particular annexation proposal. The first factor is the type, amount, and timing of development likely to occur once the area in question is annexed. Type and amount of development can be partially answered by examining existing and proposed subdivision plats in the area. In addition, the City's comprehensive plan has an effect on potential zoning of the area, since it serves as the basis for zoning controls the Borough might extend to an area once it becomes annexed to the City. One can also examine the zoning of similar nearby areas to develop an estimate of what potential zoning controls might be. Adopted City or Borough subdivision ordinances and applicable State and Federal regulations (such as DEC guidelines) would also affect potentially allowable uses, and are important to consider when determining who will pay for public services to the area, as will be discussed later.

A second factor which should be addressed is the timing of potential development in the area to be annexed, and the resulting growth rate in public service demands likely to face the City. Rough estimates can be made by using as a basis for estimating the rate at which similar areas were developed in the past, adjusted for likely changes in the projected overall growth rate of the community (derived from the population and economic projections presented in Chapter 3). The Capital Improvements Program will also affect the rate at which the area is developed. For example, if soil and water table conditions in the area preclude the use of septic tanks or other onsite sewage disposal systems, then development of the area to be annexed would be precluded until sewer lines were extended to the area.

Third, the analysis should focus on incremental costs and benefits whenever possible; average costs should not be used. For example, if the annexation of a particular area results in the need for an expansion of water storage capacity, then the incremental cost of water storage should include the cost of expanding water storage capacity to provide services needed by the area. If existing capacity can accommodate the increased demand, then no improvement costs need be allocated in the analysis.

A fourth factor which should be considered is the level or quality of service which will be provided. Quality of service provided is usually based on three considerations:

(1) Legal mandates of minimum services which must be provided (for example, requirements that the City provide a certain minimum level of treatment to all sewage which it collects prior to discharging into any navigable bodies of water).

(2) Demands for services by new residents. Often changes in living standards and attitudes among residents will lead to a change in services requested by residents; if population growth is experienced, the preferences of new residents will also come into play, and may either raise or lower the overall level of services requested. For example, if new residents are from larger communities and are used to more or higher quality services, they are likely to request that additional services, such as paved streets or more developed recreational opportunities, be provided. Conversely, if the new residents are accustomed to fewer public services, they may request fewer public services than do existing residents.

(3) Financial capability and willingness of the City to finance additional public services. Even though some services are desired by residents, and may even be mandated by law, there may be substantial delay in their provision because of financial constraints (such as tax limits or prior commitment of funds) or attitudes of City officials. Hence, there may be a substantial delay in actual expenditures for needed services. This delay is often called an "expenditure lag", and is common in growing communities.

CASE STUDY FISCAL IMPACT ANALYSIS METHOD

A recent discussion of fiscal impact analysis (Burchell, et. al., 1978) suggests that a "Case Study" approach incorporating these factors would be most appropriate for annexation analysis in a small community. The method has the advantage that it can be individually tailored to a wide range of annexation alternatives. Its disadvantage is that the figures it uses are somewhat less objective, and more susceptible to criticism, than other methods available.

In brief, the Case Study Method looks at specific potential annexation areas on an individual basis, and attempts to predict what types of actions will be taken in developing and servicing the area. The analysis relies heavily on estimates by public officials as to, for example, how rapidly water service will be provided to the annexed area, and how the costs of the extension in services will be financed.

Central facilities are a special problem. As discussed earlier, the most appropriate measure of impact on, for example, sewage treatment plant costs, is the marginal or incremental effect on cost. If additional users can be serviced for no additional improvement or treatment costs, the fiscal cost to the City is zero, while projected user charges are counted as revenues for a net positive fiscal impact. On the other hand, if projected development of an annexed area would necessitate improvements to the sewage treatment plant, the cost of the improvements should be included in the tally of fiscal impact.

Figure 10-7 summarizes the method used to complete an analysis of the fiscal impacts of an annexation using the Case Study Method.

EXAMPLE FISCAL IMPACT ANALYSIS: MOUNTAINBROOK HEIGHTS SUBDIVISION

An example analysis was performed on a possible annexation action similar to ones which may be proposed in order to demonstrate the method. The Mountainbrook Heights Subdivision (Figure 10-8) has been proposed to the Borough Planning and Zoning Commission; on the advice of the Seldovia Advisory Planning and Zoning Commission, the plat has been denied pending completion of the Seldovia Comprehensive Plan update.

If the recommendations of this plan are implemented, (including the watershed management plan and ordinance), the proposed subdivision could be developed subject to stringent restrictions. The restrictions include required collection of sewage and storm drainage, ana grading of roads. Due to these restrictions, potential costs of public services necessary to develop the subdivision are probably greater for this subdivision than for any other likely to be proposed. Hence, this potential subdivision is a good subject for an example analysis, since it would show the upper bound of potential fiscal impacts of a small to medium-sized annexation at this time.

The rate of development of the area was also projected in terms of an upper bound to determine what the maximum cost impact might be on the City. According to the population projections presented in Chapter 3, a 97-unit subdivision might be fully occupied as early as 1982 if the high growth scenario occurs. Capital and operating costs, and revenues, were projected under maximum development conditions (i.e., complete development in a single year) in order to depict maximum fiscal impacts.

Cost and revenue fiscal impacts were projected for each area of the City's operations based on four factors:

- Excess capacity or deficiency of capacity of the City's resources (for example, can present police services accommodate present population) as compared with the community's standards and national averages for small cities;
- Demands for additional service posed by the development of the annexed area (based on national standards, such as 1 police officer per 500 residents);
- Predicted service responses by the City (for example, hiring of additional part-time police officer) given likely financial resources and service demands; and
- Continuation of past City, State and Federal taxation and revenue-raising practices.

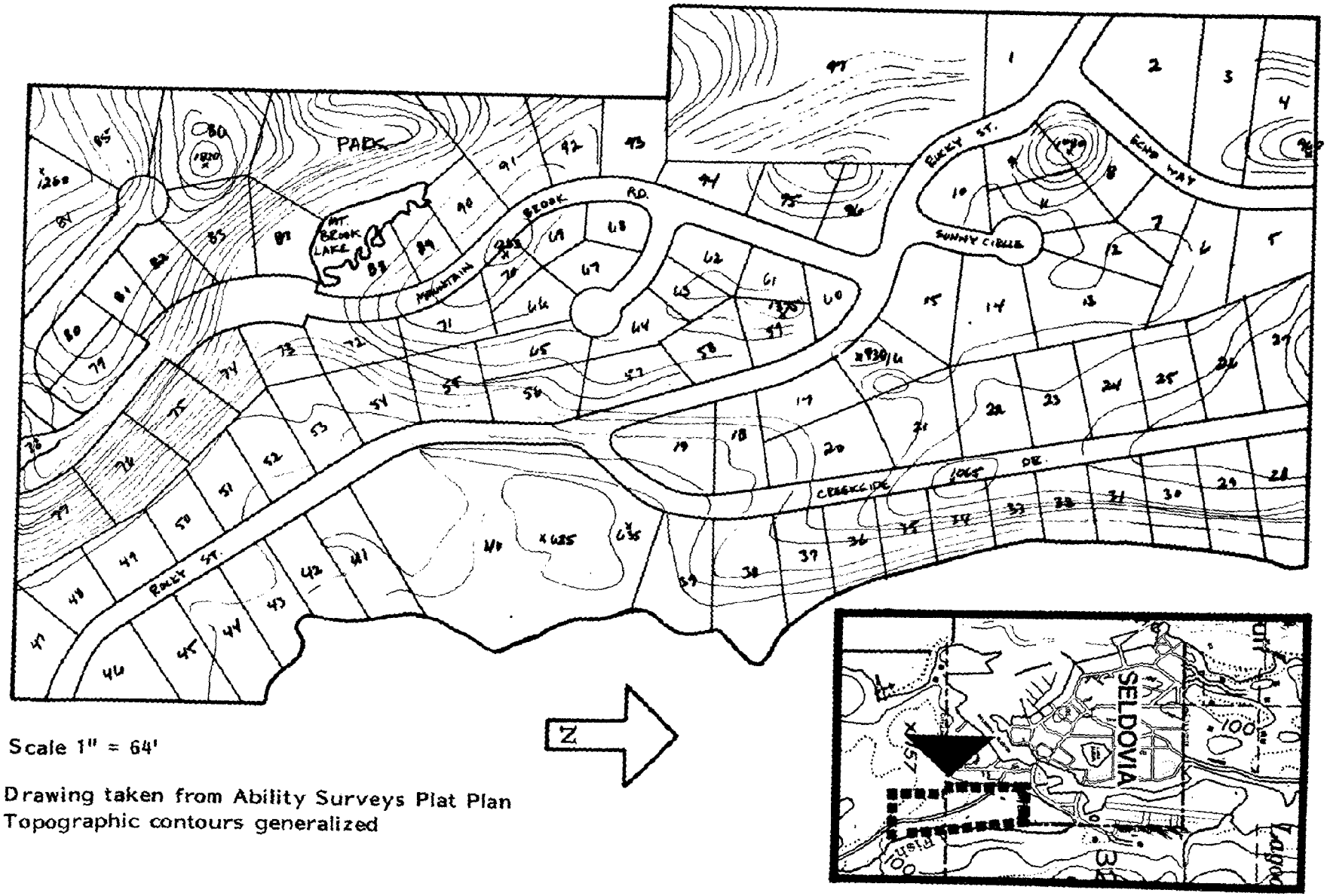
Tables 10-6 and 10-7 present additional annual City operating and capital costs at full development of the subdivision. Annual operating costs at full development would be fairly small, about $30,000, based on the observation that present staffing is adequate to serve the subdivision with little additional hiring needed.

FIGURE 10-7
SUMMARY OF PROCEDURES TO COMPLETE
MUNICIPAL FISCAL IMPACT ANALYSIS
USING CASE STUDY METHOD

STEP NUMBER	ANALYSIS/ACTIONS
1.	Contact "key" public officials, e.g., city manager, municipal administrator.
2.	Categorize public service functions, delineate responsibilities by local municipal services.
3.	Determine presence or absence, and magnitude, of any existing public operating and capital excess or deficient capacity for various public services.
4.	Project population increases through the use of appropriate multipliers. Estimate population-induced service demand, using primarily service standards and capital ratios.
5.	Interview local public officials to determine how their respective departments will respond to growth (given identified areas of existing service excess of deficiency and the rough gauge of population-created demand) in terms of expanding or not expanding their operating and capital capacities.
6.	Project the costs that will be incurred by different public jurisdictions as a consequence of the manpower and facility expansions pinpointed in Step 5.
7.	Project total annual public revenues.
8.	Determine cost-revenue surplus or deficit by comparing projected total revenues to projected total costs.

Source: Adapted from Burchell, et.al., 1978.

FIGURE 10-8
MOUNTAIN-BROOK HEIGHTS
PRELIMINARY PLAT



Scale 1" = 64'

Drawing taken from Ability Surveys Plat Plan
Topographic contours generalized

TABLE 10-6
FISCAL IMPACT CASE EXAMPLE
MOUNTAINBROOK HEIGHTS SUBDIVISION ANNEXATION
OPERATING EXPENDITURES IMPACTS

Governmental Functions	National Service Standard[1]	Current Employment	Capacity Determination		Additional Population-Induced Demand	Local Service Response	Local Operating Cost Per Unit	Cost Local of Response[2]
			Excess	Deficient				
General Government, Finance, Admin. and General Control	(1.46) 0.7	4.0	3.3	-	0.4	No Response		
Public Safety								
Police	(2.00) 1.0	1.0	-	-	0.5	+½ Time Police Officer	$16,000/ Full Time Officer	$8,000
Fire Protection	(0.85) 0.4	-	-	0.4	0.2	No Response		
Public Works								
Streets & Roads	(1.48) 0.7	3.0	2.3	-	0.4	No Response		
Sewerage	-	1.0	1.0	-	-	+½ Time Maint. Worker	$14,000/ Full Time Maint. Worker	$7,000
Sanitation	(0.01) -	1.0	1.0	-	-	No Response		
Water Supply	(0.01) -	1.0	1.0	-	-	No Response		
Recreation & Culture								
Parks & Recreation	- -	-	-	-	-	No Response		
Libraries	- -	0.5	0.5	-	-	No Response		
TOTALS	- 2.8	12.0	9.1	0.4	1.5			$25,000 $15,000 $30,000

Notes: 1/ Average employees per 1,000 population in cities less than 2,500 population in western region of U.S., 1972.

2/ All operating costs borne by City.

Source: Pacific Rim Planners, Inc. based on Burchell, et. al., (1978).

TABLE 10-7
FISCAL IMPACT CASE EXAMPLE
MOUNTAINBROOK HEIGHTS SUBDIVISION ANNEXATION
CAPITAL COST IMPACTS

	Local Service Response	Cost Of Local Response		Total Cost
		City Share	Privately Borne	
General Government				
Finance, Admin. & Control	No Response			
Public Safety				
Police Protection				
Fire Protection				
Housing & Urban Renewal				
Public Works				
Streets & Roads		-0-	$186,000	$186,000
Sewerage, Storm Drainage	Pump Station	$ 60,000	-0-	$ 60,000
Sanitation	Storm Water Line			
Water Supply	Sewer Line	$225,000	$393,000	$618,000
	Water Line	$ 40,000	$104,930	$144,920
Health & Welfare				
Public Welfare	No Response			
Hospitals	No Response			
Health	No Response			
Recreation & Culture				
Parks	No Response			
Libraries	No Response			
TOTAL CITY FISCAL IMPACT		$325,000	$603,930	$1,008 920

Source: Pacific Rim Planners, Inc., based on Burchell, et. all, (1978)

Capital costs are more substantial. Utility and road costs, excluding side sewers, water connections and driveways, would total nearly a million dollars; however, implementation of financial policies shown earlier in this chapter would limit the City's share of these costs to slightly under $36,000 annual costs. About two-thirds of streets, utilities and site improvement costs would be paid for by the developer. No other additional capital costs were projected, again based on the City's capacity to serve some new development with existing resources.

Table 10-8 summarizes the projected change in the City's annual revenues following annexation and development of the subdivision. Annual revenues are predicted to increase by over $171,000; this is more than proportional to the population increase since the area is likely to be occupied by higher valued units (and, consequently, paying higher property taxes) than existing homes in the City.

Table 10-9 summarizes the net fiscal impact of annexation and development of the annexed area. Projected additional revenues would be more than twice additional costs, leading to a large net fiscal benefit. It is worthwhile noting that even if privately-borne utility and road costs are included as costs to the City, additional revenues would still outweigh the new or marginal costs.

It is important to note the limitations of this analysis when applying these figures to other situations. A positive fiscal impact is projected because the City presently is in the unique position of having the necessary capacity to expand its service area with little or no increase in its costs. Its present small size compared to minimum city sizes for most services (for example, a single fire truck can serve more homes than it presently does) allows additional residents to be served cost-effectively.

Should large scale development and rapid, sprawling growth occur, however, it is likely that this fiscal surplus would be reduced or even eliminated, since excess service capacity would be used up and costly service expansions needed. Consequently, each proposed annexation should be analyzed carefully based on its own unique characteristics to determine fiscal impacts.

ANALYSIS OF SOCIAL AND ENVIRONMENTAL EFFECTS OF ANNEXATION PROPOSALS

Social and environmental impact analysis does not need to be as structured or quantitative as does a fiscal impact or cost-revenue analysis. To date, no reliable method is available to arrive at a composite, quantitative figure for impacts in such diverse areas as culture and water quality. The best approach, however, might be to utilize an environmental checklist to point out possible impacts which should be identified and evaluated. An example of such a checklist is shown in Appendix D. If economic quantification is desired, there are available approaches which can be used; however, these would probably be time consuming and expensive to prepare in relation to the value of the information generated.

Another factor which could be considered is the "sense of community" which Seldovia presently has, and how this might change with certain annexation proposals. For example, the Mountainbrook Heights subdivision annexation is

TABLE 10-8
PROJECTED CHANGES IN MUNICIPAL REVENUES
FISCAL IMPACT ANALYSIS EXAMPLE
MOUNTAINBROOK HEIGHTS SUBDIVISION ANNEXATION

	(Actual FY 1978 Revenues)	Fiscal Impact (Projected Change)
I. LOCALLY GENERATED		
A. General Fund Revenues		
1. Taxes		
a. Real Property Tax	($74,709)	+$ 73,322
b. Sewer Property Tax	($10,338)	$ 10,146
c. Sales Tax	($21,269)	$ 11,485
2. User Fees		
a. Sewer User Fees	($16,533)	$ 4,656
b. Other User Fees	-	-
3. Licenses & Permits		
a. Dog Licenses	($ 230)	$ 124
b. Business Licenses	($ 700)	$ 378
c. Building Permits	($ 1,434)	$ 774
d. Other Licenses & Permits	-	-
4. Enterprise Revenues		
a. Dock Revenues		
(1) Ferry Contract	($13,050)	No Impact
(2) Wharfage & Handling	($ 5,491)	$ 2,965
(3) Commissions	($ 4,537)	$ 2,450
(4) Storage & Docking	($ 60)	32
(5) Building Rent	($ 6,264)	No Impact
b. Small Boat Harbor Revenues	($18,987)	No Impact
c. Propane Sales	($ 7,782)	No Impact
d. Building Rent	($ 2,615)	No Impact
e. Equipment Rentals	($ 4,188)	$ 2,262
5. Other Revenues		
a. Interest and Penalties	($ 1,217)	$ 657
b. Miscellaneous Revenues	($ 9,376)	$ 5,063
B. Water Service Area Fund Revenues		
1. Property Taxes	($25,765)	+$ 15,472
2. User Fees	($26,854)	+$ 20,092
TOTAL LOCAL GENERATED REVENUES	($241,399)	+$139,878
II. INTERGOVERNMENTAL TRANSFERS		
A. Transfers From Federal Gov't		
1. General Fund Revenues		
a. Revenue Sharing Funds	($14,140)	+$ 8,233
2. Capital Projects Fund Revenues		
a. Grants	($572,000)	No Impact - See Discussion
TOTAL FEDERAL TRANSFERS	($586,140)	+$ 8,233

TABLE 10-8
(Continued)

	(FY 1978)	Fiscal Impact
B. Transfers From State Gov't		
1. General Fund Revenues		
a. Shared Revenues	($ 30,432)	+$ 15,178
b. Alaska Business License Tax	($ 5,397)	+$ 2,914
c. Electric & Telephone Tax	($ 3,324)	+$ 1,795
d. CETA Employment	($ 1,649)	No Impact
e. Raw Fish Tax	($ 1,233)	No Impact
f. Liquor Licenses	($ 4,600)	+$ 2,484
g. Road Contract	($ 2,468)	No Impact
h. Miscellaneous	($ 1,300)	+$ 702
2. Capital Projects Fund Revenues		
a. Grants	($247,000)	No Impact - See Discussion
C. Transfers From Kenai Peninsula Borough	-	-
TOTAL STATE AND BOROUGH TRANSFERS	($324,403)	+$ 23,073*
TOTAL ALL REVENUES	($1,151,942)	+$171,184*

Note: * State and Federal grants not included in totals.

Source: Pacific Rim Planners, Inc. based on City audits.

located on the south side of Seldovia Slough and inland from Seldovia Bay. Historically, the City has developed on the north side of the Slough, with a strong relationship to the shoreline. Through annexation and development of the Mountainbrook Heights subdivision, the character of the City may be diluted. An annexation proposal to the north of town, being of similar natural character to the existing development may not have the same impact. It is often the subtle changes in a community which make the greatest impact upon the people who live there.

TABLE 10-9
FISCAL IMPACT ANALYSIS CASE EXAMPLE
MOUNTAINBROOK HEIGHTS SUBDIVISION ANNEXATION
PROJECTED ANNUAL COST REVENUE IMPACT

CATEGORY	CITY OF SELDOVIA	PRIVATE	TOTAL
Increase In Annual Revenues	$171,184	NA	$171,184
Increase In Annual Costs			
Operating Costs	$ 30,000	-0-	$ 30,000
Capital Costs [1]	$ 35,683	$68,504	$104,187
Net Fiscal Impact	+$105,501	($68,504)	$ 36,997

[1] Capital costs assumed to be financed by 15 year bonds at 7 percent annual interests, annual payments. Total costs to be financed would be $950,000.

Source: Pacific Rim Planners, Inc.

NOTES:

(1) Impact assumed proportional to population increase - or impact = $\left(\frac{500+272}{500} - 1\right) = +54\%$.

(2) Impact assumed proportional to property valuation increases - (residents assumed to be hooked-up to sewer and water system prior to occupancy per City Watershed Management Ordinance) - assume \$60,000/residence x97x.017.

(3) Sewer user fees are \$4.00 per household/mo - (97 x \$4.00 x 12 - \$4,656).

(4) Annual impact same as for other parts of City - first year major impact - but spread out over 20 years same as proportional increase.

(5) No increases in number of ferry trips presumed - increased traffic not sufficient to increase short-term number of trips.

(6) Building rent fixed by contract - no impact.

(7) Harbor presently at capacity - capacity increases will be filled from waiting lists - no revenue impact.

(8) Propane sales by City terminated in 1979.

(9) Water user fees are \$8.67 per household/mo. - 97 x 4 x 12 = \$4,656.

(10) Federal revenue sharing was \$23.10/resident - for Seldovia in 1979 - assume 20 percent increase for 1980 - 23.10 x 1.20 x 297 = +\$8,233.

(11) No impact projected - highly variable category - see discussion.

(12) State revenue sharing was \$55.80 per resident/year for Seldovia in 1979 - assume 10 percent increase for 1980.

(13) Increase assumed proportional to change in Seldovia population.

(14) Increase assumed proportional to change in Seldovia population.

(15) No impact on CETA employment revenues.

(16) No impact on raw fish tax revenues - proportional only to commercial fish landings in Seldovia.

(17) Increase assumed proportional to changes in Seldovia's population.

(18) Increase assumed proportional to changes in Seldovia's population.

(19) Increase assumed proportional to changes in Seldovia's population.

(20) No impact projected - (highly variable category) - see discussion.

Chapter II
Economic Development

Seldovia's economy traditionally has been heavily dependent on the harvest of a few natural resources. As a result, the fortunes of the community have risen and fallen with the strength of the resource. Declines in one resource were compensated for by shifting efforts to another resource: trapping gave way to whaling, to be succeeded by fishing for herring, salmon, halibut and, most recently, king and Tanner crab.

Fishing activities have made it possible for other income-earning activities to exist; fish processing, retail trade, services and government activities have all become important activities. Logging and sawmilling have also been carried out, although sawmill operations at Jakolof Bay have recently been halted.

Although Seldovia has fared well compared to many small Alaskan communities, dependence on a few major activities creates a roller coaster-like effect on the community. This lack of stability imposes financial and psychological hardships on many; for example, boat payments must be made regardless of how fishermen have fared. Fishing, however, is unpredictable, so diversification (into other fisheries and other economic activities) is desired by many to restore greater stability to Seldovia's economy.

Economic growth is also desired by many Seldovians although disagreement exists over what types of activities are acceptable. Aquaculture, fishing and fish processing, of course, are well accepted and desired. Marine service and tourism activities are also generally favored, but not by all residents. "Heavy" industry, such as a marine service base to serve offshore petroleum exploration and development, petro-chemical processing and wood products processing, are viewed with apprehension and skepticism by many residents, but nevertheless have substantial support (Heasley, et al., 1976).

The purpose of this chapter is to examine Seldovia's economic development prospects and describe what steps Seldovia can take to further develop its economy. The first section describes general methods for stimulating economic development which are applicable to virtually all types of activities. The second section describes actions likely to stimulate the types of economic development presumed in the Intermediate and High economic growth scenarios presented in Chapter 3.

ISSUES, GOALS AND OBJECTIVES

In spite of Seldovia's many successes, continuation of economic development is among the community's highest priorities. Quality of development and impact on Seldovia's quality of life are also of great concern.

Seven issues were identified which relate to economic development.

ISSUES:

(1) Desire to expand fish processing activities.

(2) Desire to establish new marine-oriented industrial activities (boat repair, boat supply, etc.)

(3) Desire to establish marine service function for offshore (Lower Cook Inlet) oil development, but with minimal impact on existing way of life.

(4) Lack of water, sewer services for industrial development.

(5) Financing of necessary capital improvements is difficult.

(6) Few adequate industrial sites are available.

(7) Lack of diversity in the retail businesses of Seldovia.

These issues were restated in terms of a general goal and specific objectives for Seldovia's economic development:

GOAL: Large, stable and diverse economic base with new income and employment opportunities compatible with existing quality of life, and emphasizing resident ownership.

OBJECTIVES:

(1) Establish bottomfish capabilities at one or more new or existing fish processing plants.

(2) Establish a marine service function to serve offshore industries (oil, fishing, etc.), while minimizing impacts on community.

(3) Establish other basic industrial activities to provide employment and income-earning opportunities for residents.

(4) Investigate feasibility of alternative financing mechanisms for industrial development-related improvements.

(5) Assure availability of sites for new or expanded industrial activity.

(6) Strengthen existing commercial activities, and establish new or additional commercial activities.

Following sections of this chapter discuss possible strategies to achieve this goal and accompanying objectives, and present a program of recommended policies and actions to achieve these objectives.

POSSIBLE SOLUTIONS

A number of basic principles apply to successful economic development by communities, be they large or small. According to Fernstrom (1973) factors which influence the location of business firms include:

- o Raw materials
- o Transportation
- o Markets for finished products
- o Labor supply
- o Sources of capital for expansion
- o Industrial energy
- o Municipal water supply
- o Climate
- o Ecology
- o Community factors
- o Site factors

The role of which each factor plays in determining the location of industrial activity varies widely; general principles applicable to each are discussed in the following sections.

The Role Of Raw Materials

The importance of raw materials tends to vary according to the type of industry involved. Raw materials can affect the location of a firm in five major ways. First, if raw materials can be found everywhere, they may tend to pull the location of the firm towards the ultimate market. For example, if water must be added to a product before it is to be sold, the savings in transportation achievable by locating the plant near the market are usually great enough to prevent location of the plant in rural areas.

Second, the location and relative importance of a raw material have a great influence. For example, sawmills usually locate fairly near to sources of supply since it is cheaper and easier to transport finished product than the raw materials.

Third, substitutibility of materials or products also affects location decisions. For example, the invention of plastics removed the need for many industries to locate near to wood or steel sources.

Fourth, perishability of raw materials or finished products may have a significant effect on location decisions. A perishable material, or one that travels badly, will naturally attract to itself the processes using it. Fish processing products is a good example of this. The extreme perishability of both raw and processed fish make it imperative that processing plants locate close to fishing grounds, with ready transportation links to intermediate and final markets.

Finally, if the material is heavy or bulky in relation to its value, producers will tend to locate near to markets because transportation costs will be a large proportion of the cost of the final product. For example, in most parts of the country, sand and gravel producers must locate within a few miles of their customers in order to be competitive with other producers. Gold producers, on the other hand, are virtually unaffected by transportation costs.

Role Of Transportation

Another factor typically emphasized in firm location decisions is transportation. Fernstrom (1973) points out:

> *It is well to emphasize that wise selection of the plant location requires the attainment of two transportation objectives - low*

cost and satisfactory service.... The aspects of transportation service which are of significance to plant location decisions includes special facilities, frequency of service, convenience of service, and time in transit. Savings can be achieved in services available that may be significant to the location decision. For example, special handling devices that permit expeditious loading and unloading of materials or products can provide savings. There are other examples, i.e., once a week service in or out might require larger storage space and or increase inventory costs significantly.

The quality and dependability of transportation service are sometimes of greater importance in the location of a plant than the achievement of the lowest possible transportation costs. In many cases the location of plants is conditioned on the availability of regular shipments within certain time limits.

The Role Of Markets

The location of the business customers considerably influences the location of the business. Fernstrom (1973) points out:

Many businessmen consider the attraction of the market to be so strong that they may regard the location central to the market as the "norm". Location other than market induced would need to be explained by cost advantages that would outweigh the attractions of the market. Local development groups representing communities that might not appear to meet the norm the businessman has in mind must develop a rationale for the cost advantages that would prevail for a location in their community; e.g., lower labor costs for market shifts might balance favorably against transportation costs. Communities understanding the role of markets could apply this understanding in their efforts to contact those market - oriented industries they believe have the most potential for their area.

Role Of Labor

The importance of labor varies widely from industry to industry, depending on the extent to which labor is used and skills needed. Fernstrom (1973) points out:

A firm will normally wish to find an adequate pool of the kinds of labor it requires in a prospective location.... There are many reasons why industry seeks a location where the labor force is already in place. Probably the most compelling reason is that few firms can afford to pay the cost of moving large numbers of people.

Labor cost variations are not entirely, or even mainly, a question of differing wage levels. High wage rates are not in themselves disadvantages. Of equal or greater importance are such factors as labor attitudes, turnover rates, fringe benefits, absenteeism, and the possibility of having to compete with other firms in the vicinity for available labor. All these factors directly affect productivity....

The size of town can also affect labor costs, and not only because of the wage differential between large and small centers. Although a large town possesses many advantages, some firms favor smaller centers where they can maintain certain other labor cost advantages apart from the slightly lower wage level. Such added advantages include a lower rate of labor turnover (fewer alternative jobs are available), lower rates of absenteeism and generally favorable labor attitudes. At the same time, because of size of the labor force, there may be less freedom in recruiting workers or in terminating their employment than in a large center.

Role Of Capital

Another element in location decisions is the availability of capital, or funds available to loan, to new or expanding businesses.

Many small town businesses have difficulty obtaining loan capital because they are located at large distances from major financial centers, and consequently have difficulty establishing the kind of relationship with lenders necessary to provide adequate financing. Further, local lenders are often hesitant to lend funds due to inexperience with business and industrial loans. The problem may be particularly acute for small firms, who often pay high interest rates in order to obtain any capital at all.

State and local agencies and community groups seeking to promote economic development of small communities often seek to overcome this problem by offering financial incentives as a means of offsetting financing difficulties. The strategies usually involve differentials of taxes, or long term, low interest loans to reduce borrowing costs. The intended effect is to increase potential profitability of locating the firm in the community, or even to make a new venture or investment possible where it might otherwise not have been.

Such financial assistance is usually available from three different sources: local business development corporations, federal or state loan and loan guarantee programs, and municipal and industrial bond financing programs. Miller and Camil (1964) identified three major categories - tax concessions, revenue bonds and other subsidies - which are used:

(1) Tax concessions
   (a) Exemptions
   (b) Stabilization
   (c) Favorable property valuation (under-assessment)

(2) Revenue bonds
   (a) Bonds for financing buildings and/or equipment
   (b) Bonds for providing long-term risk capital

(3) Other subsidies
   (a) Cash donations

(b) Payment of moving expenses

(c) Payment of repair and installation costs

(d) Sale of sites or buildings at low prices

(e) Donation of sites and/or buildings

(f) Low rentals on buildings and/or sites

(g) Advance agreements on utility rates and/or service

Financial inducements appear to have been effective only when all other factors necessary for economic development (labor force, available sites, public services, transportation system, favorable location with respect to raw materials and markets) are also present. Financial inducements alone cannot attract new business to the community. The most serious drawback, however, appears to be in terms of equity. Miller and Camil (1964) note:

> *Special municipal inducements that apply only to businesses that are new or expanding constitute privileged treatment. Such privileged treatment must be paid for by other taxpayers, including existing businesses. In a particular instance the cost to a community might be worth it when the question is one of economic survival for a substantial part of the community. But both for locality and for state, special municipal financial inducements to industry are generally undesirable as public policy in view of their negative tendencies toward undermining the fiscal and moral repute of local governments.*

The Role Of Industrial Energy

Availability of a low to moderate cost, dependable source of energy is a factor whose importance cannot be overlooked. While energy costs may play relatively more or less important roles in the choice of firm location, in all cases, supplies must be adequate and reliable. It is important that community development efforts emphasize the maintenance of adequate, reliable and reasonably priced sources of energy.

Role Of Water

Water is one of the most widely used raw materials for industrial and other economic purposes. It is particularly important in the case of Seldovia because many of the potential industries which might be attracted to Seldovia depend greatly on the availability of an adequate quantity and quality of water. Fish processing plants, fishing boats, and marine service bases all require significant quantities of high quality water. Water supply is an essential service which must be available if economic development of a community such as Seldovia is to proceed.

Waste water disposal is also important. Fernstrom (1973) notes:

> *With stricter federal and state standards now in effect, an increasing number of industries which normally consider treating their own wastes*

will be looking for community situations where public sewage disposal systems can take over. Or, industry will look for open space locations where they will only be responsible for treating their own portion of pollution. For a community to be attractive to industry, it must have procedures well established for waste water disposal.

The Role Of Community Factors

Another factor is the role which the community plays. Businesses often look for a favorable taxation climate, adequate government services, cultural amenities, and favorable attitudes on the part of community government, including planning and zoning regulations. Tax rates are often overemphasized in importance, since availability of quality public services is usually far more important in determining location of a new business.

In planning, platting or zoning decisions, businesses usually look to see that the following conditions are met:

(1) Surrounding properties will ultimately be occupied by like businesses;

(2) There will be a minimum of congestive traffic mix;

(3) There will be adequate utilities, and sewer and water facilities to serve the site;

(4) There will be a minimum of causes for friction between the facility and the community;

(5) The community recognizes the importance in economic relationships of having a balanced community, and is seeking to preserve the balance;

(6) If there is a need for additional land in the future for expansion, the surrounding land will be available as industrial land (preserved through zoning or other community action, such as City ownership of industrial sites). (Fernstrom, 1973).

The Role Of Site Factors

Suitable sites must also be available if economic development is to occur. Fernstrom (1973) notes:

...Because land prices are a factor in a location decision and because this is a plus factor for rural areas, every attempt should be made to avoid local speculation in land for industry sites. Speculation can drive industry away. Many communities or local development groups have found it necessary to own or option land to protect the community's interests. It is almost pointless to show an industry land that does not have the stated and fixed price...

Possible Economic Development Strategies

Five major types of strategies can be employed to strengthen a community's economic base. According to Fernstrom (1973), possible strategies include:

(1) *Job development: Creating employment opportunities to generate personal income through wages and salaries.*

(2) *Resource development: Efficient use of resources to generate other forms of personal income.*

(3) *Manpower development: Educate and train local people to increase their earning power.*

(4) *Community development: Improve services, increase efficiency of the local public sector, and enhance the environment and community's support for economic development.*

(5) *Management development: Provide leadership institutions, procedures, coordination, planning, research, and promotion to achieve economic growth.*

Figure 11-1 presents an outline for community economic development strategies suggested by Fernstrom (1973). To a large extent, most of the possible actions outlined in the figure are either covered elsewhere in this comprehensive plan, or suggest a far more intensive level of involvement by community leadership than may be appropriate for Seldovia. Nevertheless, it is important to keep these factors in mind while reviewing the actions outlined later in this chapter.

Financing Economic Development

One of the most common approaches in Alaska is the use of direct loans and loan guarantees available through the Alaska Department of Commerce and Economic Development. The State assists business expansion by borrowing money at a lower cost than is available to private firms and passing the savings on to qualifying firms. Essentially, the Federal government in effect subsidizes the project by not collecting income tax on interest received by lenders. Although this approach has become increasingly popular in recent years, it appears likely that its use will be restricted severely in the near future.

An alternative device is for the public agency to guarantee a loan made by a private lender to the expanding business. This is particularly useful where the business may be small or does not have sufficient financial assets to rate favorable terms from private landers. Again in this case, cities must be careful to assure themselves that the business will not default on the loans and leave them saddled with the debt. This also makes it more difficult for other worthwhile projects to be financed.

Another method by which communities assist businesses to expand involves establishing a local business development corporation or port authority. Such organizations are initially financed by sale of stocks and bonds, grants, legislative appropriations or even tax assessments. The organization often will use these funds to build facilities directly for interested businesses, and lease the facility on favorable terms varying from five to twenty years. From the firm's viewpoint, this approach is very advantageous, allowing the business to retain its working capital and financial flexibility. It can also reduce income taxes, since lease payments can be deducted as an expense, in contrast to purchase payments which must be treated as acquisition of assets.

FIGURE 11-1

OUTLINE FOR POSSIBLE COMMUNITY ECONOMIC DEVELOPMENT STRATEGIES

OBJECTIVE I. Job Development. Create employment opportunities to generate personal income through wages and salaries.

POLICY: Upgrade and expand existing employment opportunities.

ACTION: Identify employment opportunities in growing industries in the area which produces wages sufficient to raise the local income average.

ACTION: Work with industries which have potential for upgrading or expansion.

ACTION: Participate in upgrading and expansion through information dissemination, research, and development funding.

POLICY: Attract new industry employment opportunities.

ACTION: Identify major industry sectors and companies that are growing or are expected to grow.

ACTION: Study location criteria used by companies.

ACTION: Correlate location criteria with area resources and facilities.

ACTION: Develop locational information for industry decision making appropriate to the area.

ACTION: Disseminate results of analysis and information to appropriate industry sectors.

ACTION: Identify and/or control industrial sites, buildings, or industrial parks.

ACTION: Provide location assistance to industry.

POLICY: Establish new employment opportunities (homegrown industry).

ACTION: Gather information on new products, services, processes, and technology from all available sources.

ACTION: Identify those which constitute an opportunity and seek local implementation.

ACTION: Assist new entrepreneurs with potential by performing research and development on manufacturing, securing venture capital, market analysis and management development.

OBJECTIVE II: Resource Development. Efficient use of natural resources to generate other forms of personal income.

POLICY: Identify and develop markets for area resources and products.

ACTION: Identify resources now being exploited.

ACTION: Determine products with highest potential for developing markets outside the area.

ACTION: Determine those resources which will contribute most significantly to income generation.

ACTION: Identify underutilized resources and evaluate potential for future use.

ACTION: Implement program to bring about earliest and highest use of resources compatible with long range goals.

POLICY: Develop investment/venture capital resources within the area.

ACTION: Collect current information on availability of venture capital.

ACTION: Determine policies of investors operating in the area.

ACTION: Encourage capital ventures by:
(a) Possible financial support of a development bank.
(b) Obtaining authority to act as a financial agent in State and Federal programs.
(c) Attempting to establish bank lending policies to promote local growth.

OBJECTIVE III: Manpower Development. Educate and train local people to increase their earning power.

POLICY: Develop and coordinate educational programs directed toward meeting future needs for employees in professional positions within the area.

ACTION: Identify current educational level of area population.

ACTION: Determine capacity and quality of existing post-high school institutions.

ACTION: Estimate future requirements for various disciplines related to employment development and resources development.

ACTION: Communicate relevant data to states for incorporation into planning for higher education.

ACTION: Assist state planners in establishing goals and objectives for higher education.

FIGURE 11-1 (cont.)

OUTLINE FOR POSSIBLE COMMUNITY ECONOMIC DEVELOPMENT STRATEGIES

POLICY: Develop and coordinate training programs directed toward relevant skills for production of future employees in skilled jobs.

ACTION: Estimate skill requirements based on employment and resources development.

ACTION: Determine current and projected labor availability and need.

ACTION: Estimate future requirements for various disciplines related to employment development and resources development.

ACTION: Communicate relevant data to states for incorporation into planning for higher education.

ACTION: Assist state planners in establishing goals and objectives for higher education.

POLICY: Develop and coordinate training rpograms directed toward relevant skills for production of future employees in skilled jobs.

ACTION: Estimate skill requirements based on employment and resources development.

ACTION: Determine current and projected labor availability and need.

ACTION: Determine training required to produce required number of skills.

ACTION: Assist in selection, counseling, testing, and placement of persons trained.

OBJECTIVE IV. Community Development. Improve services and increase efficiency of local public sector and enhance the environment for economic development.

POLICY: Determine existing conditions in such community facilities as housing, health care, water and sewer facilities, public education, etc., as key factors in improving the development base.

ACTION: Identify relative importance of environmental conditions in industrial location decisions and relate to community attitudes.

ACTION: Estimate future requirements for community facilities, housing, health care, school facilities, etc.

ACTION: Identify services that could be operated more efficiently.

ACTION: Communicate relevant data to responsible agencies for incorporating into investment and other plans.

ACTION: Identify state and federal resources to support and implement community development programs.

ACTION: Secure funds to operate industrial development organization and obtain professional staff or assistance.

OBJECTIVE V: Mangagement Development. To provide leadership, institutions, procedures, coordination, planning, research, and promotion to achieve economic growth.

POLICY: Establish attitudes and institutions to support established goals.

ACTION: Develop communitywide acceptance of job development programs.

ACTION: Obtain institutional support for development programs; i.e., equitable taxes, services, and facilities to support programs.

ACTION: External promotion of area advantages for industrial locations.

ACTION: Encourage and support area planning programs.

Source: Fernstrom, 1973.

This approach is most common in larger cities, where startup and administrative costs can be more easily accommodated; however, it is an extremely effective and flexible tool for smaller communities if used properly.

Initiating Economic Development

Locating and dealing with business prospects can be a long and difficult process for a community, often requiring full-time staff or committees. Although techniques vary widely, they can be summarized into several different categories. Fernstrom (1973) contains a good discussion of this process, as summarized below.

Generally, communities begin by assembling a list of potential prospects upon which to base their efforts. The prospects are systematically contacted, and efforts of the local development committee are subsequently focussed on those prospects who have shown interest.

In small communities, where full-time staff may be impractical, it is usually better to relay on area economic development organizations, such as the Alaska Department of Commerce and Economic Development, and the Kenai Peninsula Borough Economic Development Committee, to do much of the prospecting work.

A single contact person must be designated from the community and know what it is he or she should be doing. Likewise, the representative should have a local committee of interested citizens to work with, such as Chamber of Commerce, when business prospects can be identified. Fernstrom (1973) suggests that area economic development organizations, such as the Kenai Peninsula Borough Economic Development Committee staff, be considered as part of Seldovia's "team", and noted seven basic rules for communities to follow in working with them:

(1) When you have an important prospect, tell the team member about it.

(2) Have State and Borough economic development representatives talk with local groups to gain community understanding and support.

(3) Ask team members for help on specific research problems.

(4) Make sure the team members understand local facilities and resources, and have available supporting publications.

(5) Answer promptly all requests for information.

(6) Become more involved in State and Borough economic development programs.

(7) Accompany State and Borough economic development officers on prospecting trips.

Potential Economic Development Opportunities

From the discussion of basic economic development concepts, attention is now turned to examining possible methods of expanding economic activities in areas with major promise. Table 11-1, which presents a comparison of historical employment growth in the Kenai-Cook Inlet Census Division, the State of Alaska and the United States from 1970 to 1978, gives a good indication of possible economic growth which Seldovia might attract. As the table indicates, both Alaska and Kenai-Cook Inlet employment have grown rapidly in some categories,

TABLE 11-1
COMPARISON OF HISTORICAL EMPLOYMENT GROWTH
UNITED STATES, ALASKA AND KENAI-COOK INLET CENSUS DIVISION
1970 - 1978

	Percent Change In Employment 1970-1978		
	Kenai-Cook Inlet	Alaska	United States
Mining	28.3	85.8%	34.3
Metal Mining	*	-18.3	
Oil & Gas Mining	*	96.0	
Other Mining	*	56.7	
Contract Construction	28.9	77.6	19.1
Manufacturing	43.7	47.9	5.1
Food Processing	-29.2	70.4	-5.0
Logging-Lumber & Pulp	*	33.2	31.1
Other Manufacturing	*	175.8	5.3
Transportation, Communications and Public Utilities	100.0	79.7	7.9
Trucking and Warehousing	*	36.3	
Water Transportation	121.1	40.7	
Air Transportation	63.3	47.4	
Other Transportation	*	235.9	
Communications & Public Utilities	*	104.3	
Trade	134.8	87.8	28.9
Wholesale	134.0	76.4	28.3
Retail	135.0	90.9	29.1
General Mdse.& Apparel	*	-5.7	
Food Stores	72.7	100.3	
Automotive & Service Stations	202.0	49.0	
Eating & Drinking Places	376.6	166.2	
Other Retail	*	156.1	
Finance, Insurance & Real Estate	250.0	165.6	26.8
Services	189.0	141.0	37.5
Hotels, Motels & Lodges	242.3	113.5	
Personal Services	254.5	36.5	
Business Services	64.8	158.7	
Medical Services	304.0	153.1	
Other Services	218.8	154.7	
Government	104.6	47.0	23.2
Federal	-21.4	6.0	0.8
State	127.9	38.4	29.4
Local		144.8	
Miscellaneous & Unclassified	8.0	252.1	
TOTAL EMPLOYMENT	87.8	76.6	20.9

Notes: All figures are positive (increases) unless otherwise noted.
* Denotes data not available.
Sources: U.S. Department of Commerce, 1978 and Alaska Department of Labor, various years.

but only slowly or even decreased in others. Based on these figures, categories can be classified as either rapidly growing, slowly or moderately growing, or stagnant or decreasing, as shown below.

RAPID GROWTH	SLOW OR MODERATE GROWTH (Below Average Growth)	STAGNANT OR DECREASING
Transportation	Manufacturing	Fish Processing
Communications and Public Utilities	Contract Construction	Federal Government
Wholesale Trade	Mining	
Retail Trade	General Merchandise and Apparel	
Finance, Insurance and Real Estate	State Government	
Services	Logging, Lumber and Pulp	
Local Government		

For the most part, Seldovia appears to have followed these trends, with the exception that fish processing has apparently increased in Seldovia in contrast with the boroughwide trend.

Five potential kinds of economic development in Seldovia can be identified based on past and projected employment growth and Seldovia's areas of comparative advantage. The five activities include fisheries, tourism, forest products, marine services for offshore petroleum activities and local trade.

The following sections describe methods which can be used by Seldovia to attract or expand each activity. The general discussion of small community economic development presented in the previous section applies to each of the activities. The following sections are more specific about activities which may lead to economic development in the Seldovia area.

FISHERIES

Unquestionably the largest and most vital of Seldovia's industries, fisheries can continue to grow if the right combination of public and private actions occur. Whether such actions occur, of course, is dependent on Seldovia's ability to build on its strengths and eliminate its disadvantages.

Recent reviews of fisheries prospects for Southcentral Alaska and the Gulf of Alaska have indicated that high-valued fisheries (such as king and Tanner crab, salmon, halibut and shrimp) are currently being harvested at or near their maximum sustainable yield. Rapid increases in fish prices in recent decades, however, have enabled many additional fishermen and vessels to enter these fisheries (with the exception of the salmon fisheries now under limited entry), reducing average catch per vessel in each fishery. Lacking additional regulation (such as imposition of limited entry), additional fishermen and vessels are likely to enter the high valued fisheries. If sufficient harbor, service

and processing facilities are available, Seldovia will feel the effects of fleet expansion.

If increased competition reduces fishermen's income, efforts will likely be turned to lower-valued fisheries, such as bottomfish and some species of shellfish (e.g., razor clams) which are being harvested at levels well below their potential (Earl R. Combs, Inc., 1979). Also, aquaculture and other intensive management actions which hold promise for increasing harvests of many species of fish have not been pursued in the south Kachemak area to any great degree. Finally, recent State and Federal legislation (notably the U.S. Fisheries Conservation and Management Act of 1976) have changed State and Federal fishery policies from regulatory to active promotion of the development of Alaska's fishing industry (Alaska Governor's Office, 1979). Seldovia has many of the essential requirements to participate in fishing industry development; however, many other nearby communities also wish to participate, hence Seldovia will need to actively work to build on its strengths and overcome its weaknesses in order to participate.

A recent review of bottomfish development prospects for the Kenai Peninsula borough concluded that market prices and fish stock availability could support the expansion of the Borough's fishing fleet by 6 to 8 large trawlers (60 feet or greater) equipped to land an estimated 50,000 metric tons of pollock and black cod per year by fishing 10 to 11 months per year (Earl R. Combs, Inc., 1979). Recent research has concluded that a commercial Alaskan pollock fishery appears to be feasible given recent increases in the wholesale and retail price of pollock (Gorham, 1979; Martin, 1978).* Homer and Seward currently seem more likely to attract the bottomfish industry because of the access to transportation, fleet capacity and support services (Earl R. Combs, Inc., 1979).

The current advantages and disadvantages of Seldovia with respect to Homer and Seward are compared below. Seldovia's relative advantages include:

(1) Available fish processing capacity and willingness of processors to move into new product lines;

(2) Availability of fleet of suitable large fishing boats (i.e., crabbers) capable of conversion to bottomfish harvesting, and financial capacity of many fishermen to finance new gear and equipment;

(3) Favorable community attitudes;

(4) Available waterfront land for fishing-related expansion;

(5) Usable port facilities;

(6) Steady power supply;

(7) An attractive community and amenities;

(8) Location near to fishing grounds.

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* Offshore processing is even more feasible; however, State and Federal policies will probably prevent offshore processing from taking a significant share of bottomfish catch.

Seldovia's relative disadvantages, in comparison to Homer and Seward include:

(1) Inadequate transportation links for shipping supplies and fishery products, particularly during periods when State ferry service is unavailable;

(2) Inadequate quality and quantity of public water supplies (now being remedied);

(3) Lack of supplies and services for fishing boats.

Other disadvantages or obstacles which are shared by Seldovia, Homer and Seward include:

(1) Lack of sewage treatment capabilities to treat fish processing waste;

(2) Small resident labor force;

(3) Lack of housing for workers;

(4) Lack of available moorage in 80 to 120 foot slip length range (10 to 15 foot depth) to berth large fishing vessels;

(5) Fishermen may be reluctant to commit funds ($200,000 to $300,000) and effort to a year-round high-volume, low price fishery;

(6) Fish processors may not have the financial resources to raise funds ($500,000) to add bottomfish processing capabilities.

Because the fishing industry is interdependent (fishing boats often choose home ports near to processors, and processors usually locate in ports with large fleets), Seldovia's efforts to expand its fishing industry must attempt to balance processing expansion with fleet expansion. If one is out of scale with the other, Seldovia's industry could be affected adversely.*

The key for successful fisheries expansion is to actively build from and preserve Seldovia's strengths while eliminating relative weaknesses wherever possible. Hence, actions should focus on improvements wherever possible, as described below.

Improve Transportation Systems - Addressed in greater detail in Chapter 8, year round service and greater frequency of service must be established, either by the State Marine Highway System or the community in cooperation with a private carrier. In 1976, for example, crab meat production totalled 318,000 pounds (Pacific Packers Association, 1977). The addition of S. A. Packers and implementation of limited bottomfish processing capabilities in Seldovia could easily double or triple this figure.

Complete Improvements to Public Water System - Processors must be able to obtain adequate quantities and quality of water regularly; Seldovia has been greatly hampered by its water supply deficiencies. Completion of water supply improvements outlined in Chapters 6 and 9 is essential if existing processors are to remain viable and expansion encouraged.

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* In fact, this appears to have happened recently. Establishment of a second processing plant (S. A. Packers) was not accompanied by a commensurate fleet expansion. As a result, both plants have experienced difficulty purchasing adequate supplies to operate efficiently.

Increase Supply of Worker Housing - One of the reasons processors have difficulty obtaining workers when needed is that Seldovia has few housing units suited to the needs of workers (i.e., small, low cost rental units). Implementation of actions described in Chapter 4 would solve most worker housing problems, and would probably also make it easier for Seldovia to attract and retain an adequate supply of workers.

Increase Moorage Space Available for Fishing Fleet - Seldovia's harbor is, like other nearby harbors, currently at capacity with a long waiting list for slips. Expansion of moorage space would attract additional boats, and would probably enable Seldovia's processors to increase fish deliveries and improve viability of the processors. Also, since bottomfish processing is efficient only at a large scale of operation, processors need to have a sizable local fleet to draw on in order to assure adequate deliveries of fish. (See Chapter 8 for actions to accomplish necessary port improvements).

Improve Access To Sources of Financing Available For Expansion Or Improvement Of Fishing Fleet and Processing Plants - At present, bottomfish industry expansion is considered risky, and many interested fishermen and processors have difficulty obtaining financing necessary to enter the industry. In particular, local fishermen and processors need to be exposed to State and Federal agencies with low cost loan programs oriented to the fishing industry's needs. Such exposure could include, at a minimum, regular visits by agency representatives. (See Appendix E for a description of major sources of financing). Other possible sources of financing include joint ventures with Native corporations, or domestic or foreign fish processors or trading firms (as was used to establish S. A. Packers), or establishment of a non-profit local development corporation (LDC) (which could receive grants and loans from public agencies for business development and take a strong entrepreneur role).

Improve Sewage Treatment Capabilities - Although industrial sewage disposal probably will not be handled by the City's proposed sewage treatment plant, lack of adequate sewage disposal appears to be limiting the City's ability to expand sewer service to new areas and increase its housing stock. Fishing boats, too, now have to meet sewage discharge requirements. Improvement of both industrial and non-industrial waste disposal, therefore, is important if Seldovia is to expand and retain its fleet and processing capabilities. (See Chapter 9 for a discussion of sewage collection and treatment improvements).

Ensure That An Adequate Amount Of Waterfront Land Is Available For Expansion Of Processing And Marine Services - If fishing industry expansion is to occur, additional land will be needed for processing expansion, marine services (boat and gear repair services) and gear and equipment storage. Approximately two acres of Industrial zoned (and five acres of Commercial Marine zoned) waterfront land is owned by the City. It is imperative that City, LDC or other public ownership or option ownership of these lots be maintained and directed to ensure that space is available for expansion when needed. (See Chapter 5 for land use and coastal management plan and actions).

Expand Marine Services Offered - Currently, Seldovia boats must travel to other parts for all but very minor repairs and service. Establishment of repair services could improve Seldovia's attractiveness as a home port for fishing boats,

and indirectly aid processors. Services could range from those requiring little investment (electronics repair, gear repair, supply sales) to major (marine ways with hull repair, painting and engine maintenance capabilities). The best sites appear to be the Commercial Marine (CM) zoned sites adjacent to the small boat harbor and the Industrial zoned land by the processing plants.

Develop Aquaculture Potential - Seldovia could also benefit greatly from aquaculture development. Salmon, shrimp, oysters, clams and mussels are all successfully raised artifically in other areas. Methods range from intensive (e.g., salmon hatcheries) to small scale, limited actions (e.g., improving stream beds for salmon spawning and "seeding" tidelands with imported oyster seed). State law provides that fisheries enhancement be carried out by regional non-profit associations such as the Cook Inlet Regional Aquaculture Association. By working closely with interested local fishermen, processors and non-profit research and aquaculture associations, Seldovia can begin to enhance existing fisheries as well as pioneer new ones.

In all of these activities, a great deal of outside assistance can be obtained from the Borough and State and Federal agencies charged with assisting fisheries-related development. The Alaska Governor's Office (1979) noted:

> *Where a community makes a concerted effort to develop and act on its position regarding bottomfish development, the State shall adapt its actions to support those community priorities to the extent that such actions also reflect fair consideration of statewide, regional and minority interests.*

TOURISM

Seldovia is geographically centered within a region of both dramatic and passive scenic attractions. Seldovia's proximity to Kachemak Bay State Park and the unique scenic attributes of the Bay and surrounding uplands play a major role in drawing visitors from other areas, particularly Anchorage. Fishing is the primary focus of tourist interest in the area, although other activities such as hiking, hunting, camping, and sightseeing are becoming increasingly important as well.

The attractiveness of the South Kachemak Bay area is evidenced by figures indicating summer peak loads in ferry traffic which are increasing yearly at a rate considerably greater than overall resident population growth (Chapter 8). Another indicator of growing visitor interest is the amount of seasonal housing being developed in the study area. According to the intermediate projection of seasonal housing demand, second homes are likely to double in number to 40 units by the year 2000.

Much of Seldovia's appeal to both visitors and residents alike stems from the quaint, water-oriented charm of the community. Seldovia has developed historically according to a pattern dictated by a need for self-sufficiency and inherent lack of automobile access. Maintenance of the character of the City and surrounding area is important if the quality of life enjoyed by residents is to be sustained and local tourism business encouraged.

The isolated nature of Seldovia may act to encourage the more favorable, destination minded visitor to the area. It is apparent, however, that considerable potential exists for the encouragement of higher level of positive tourist growth in the area. A recent study of tourism in small Alaskan communities suggested that a community must have four basic features if it is to attract tourism:

- o *Attractions* - Something which tourists want to see and do in or near the community.
- o *Access* - Regular, scheduled means of transportation to and from the community. Frequent service, ability to travel by more than one means (such as airplane, private boat and ferry) and cost of travel are also important.
- o *Accommodations* - Clean, overnight facilities with baths and good meals must all be available.
- o *Advertising* - Tourists must have some means of finding out about the attractions, access and accommodations of a community. Methods can range from brochures to magazine, newspaper, television and radio advertisements to personal sales efforts with travel agents, airlines and potential tourists. (Homan-McDowell Associates, 1979).

Tourism can be of positive benefit to Seldovia if it can be controlled and it is generally accepted by the community. Homan-McDowell Associates (1979) outlined three basic steps to successful development of tourism in small Alaskan communities. The steps are:

(1) Making the decision - whether the community desires tourism;

(2) Planning - minimum requirements for access and accommodations include shelter (lodging), food, restrooms, transportation to local attractions, and a visitor information center; and

(3) Complete a community inventory and advertise the community's attractions - this can include brochures, detailed information folders (to follow up information requests), publicity (such as hosting travel writers and photographers, working with the Alaska Division of Tourism, and news releases).

The Alaska tourism market can be divided into two groups - independent tourists and package tour groups - and fifteen separate market segments. The market segments include:

(1) Airline touring,

(2) Ferry touring,

(3) Cruiseship touring,

(4) Motorcoach touring,

(5) Camper/travel trailer touring,

(6) Passenger car touring,

(7) Local tours,

(8) Unassisted sport fishing,

(9) Guided sport fishing,

(10) Hunting,

(11) Camping,

(12) Winter touring,

(13) Skiing,

(14) Miscellaneous outdoor activities, and

(15) Yachting.

Seldovia's proximity to Kachemak Bay and Kachemak Bay State Park have attracted primarily outdoor oriented, self-sufficient tourists whose positive economic impact on Seldovia has been minimal. Positive economic benefits could be increased by stressing four major improvements:

(1) Improved and expanded air and water transportation to and from Seldovia (such as expanded frequency of ferry service during summer);

(2) Improved accommodations for lodging and eating to compete with other areas;

(3) Developed activities (e.g., charter fishing and hunting, visiting cultural and recreational sites) for the tourist to engage in once he/she arrives in Seldovia;

(4) Expanded and better organized promotion of Seldovia with independent tourists and travel agents.

The satisfaction of these needs are logically and traditionally assigned to various groups including city government, community organizations and individuals. In Seldovia's situation, each of these groups could address one and participate in each of the aforementioned elements.

Improved Transportation - This element, discussed in Chapter 8, is best dealt with by the City. It is equipped to work with the State and Federal agencies which must be involved to attain better and expanded service, particularly increasing scheduled ferry runs to and from Seldovia during summer months. Improved access could attract a significant fraction of the large numbers of independent tourists who come to the Homer area each spring and summer. Weekend travelers from the Anchorage area and out of state require more frequent and dependable service than is currently offered by the State ferries; improved service would probably significantly increase tourist travel to Seldovia. Simply adding one additional round trip per week between Seldovia and Homer during May through early September (and decreasing intervals between trips to three days during that period) would probably increase passenger and vehicle traffic by a minimum of 20 percent over present levels, resulting in 300 to 500 additional visitors per year.

Another transportation improvement which would assist tourism is increased transient boat and floatplane moorage. During many summer weekends, the harbor becomes overcrowded with the arrival of visitor boats and floatplanes. Increased transient moorage would improve Seldovia's ability to attract this type of tourist.

Improved Accommodations - To accommodate a growing number of tourists ariving in Seldovia, increases in the number of lodging alternatives and rooms is required, as well as a greater variety of eating establishments. For example, a new inn or lodge would attract the destination tourists who stay the longest and purchase the largest quantity of goods and services. Homan-McDowell Associates (1977) found that a 20-room lodge or inn might be feasible.

Also, developed campgrounds outside Seldovia with utility hookups and restrooms would serve the auto-camper market and create local employment. This could be developed and operated by the State Parks Department at Kachemak Bay State Park or Outside Beach.

Improved Local Attractions - To a large extent, Seldovia has many features which can be used to attract tourists. Packaging and accessibility can be improved by organizing local boats to conduct charter fishing as part of a weekend package tour promotion aimed at Anchorage residents. Likewise, hunting and fishing guides could help attract small fly-in hunting and fishing groups by improving access to the attraction.

Other examples of improved local attractions include establishment of a museum, visitor center, and renovation of historical attractions (St. Nicholas Church, pioneer homes and the boardwalk), improved access to waterfront (beach access sites) and implementation of the park plan could also increase the number and quality of Sledovia's attractions.

Advertising and Promotion - Existing brochures describing Seldovia are helpful to tourism promotion, but additional efforts undertaken could significantly improve the effectiveness of Seldovia's tourism promotion efforts. Examples suggested by Homan-McDowell Associates (1979) include:

- Advertise in travel journals such as the Worlds of Alaska! (published by the Alaska Division of Tourism, Department of Commerce and Economic Development).
- Prepare information brochures to send to travel agents, airlines or potential tourists desiring current, detailed information such as mailing addresses and telephone numbers of lodges and restaurants, ferry and air charter rates and schedules, fishing and hunting season dates and area openings, etc.
- Work with travel agents and Chamber of Commerce to organize small package tours, oriented to Anchorage-area residents, such as in conjunction with community events (fishing derby, fourth of July, etc.)
- Host travel agents and photographers in conjunction with Alaska Division of Tourism promotion activities.
- Improve circulation of brochures describing Seldovia, such as placing at displays at airports and hotels throughout Alaska, and in "lower 48" states in cooperation with Alaska Division of Tourism.

FOREST PRODUCTS

Among the commercially valuable natural resources accessible to Seldovia are relatively modest stands of commercial grade timber. Logging and sawmilling have been carried out in the past, but sawmilling ceased with the closing of the Jakolof Bay sawmill. Since then, logging has continued on a fairly limited scale on Native corporation lands, with most production lightered aboard freighters at Jakolof Bay for export to Japan.

Across southcentral, central and southest Alaska, the forest products industry is important but relatively undeveloped compared to the "lower 48" industry. Along with Canada and the Soviet Union, Alaska supplies a large amount of wood fiber to Japan. Japanese sawmill capacity is quite well developed, and milling can be carried out in Japan for much less than is possible in Alaska (Glass, 1974). Hence, Japanese markets emphasize a distinct preference for sawlogs in the round, unprocessed form. The preferences are so strong that Alaskan producers have a significant economic incentive to sell logs in the round (unprocessed) rather than undertaking any milling in Alaska.

Given these market incentives, the only major reason for the existence of sawmilling in Alaska are State and Federal laws mandating primary processing (namely, to "square up" the logs into cants) of Alaskan timber logged from publically owned lands prior to export to foreign countries. The laws are intended to develop an Alaskan forest products industry, and have lead to the development of a large number of sawmills which perform only the minimum of processing prior to export. High processing and transportation costs also prevent Alaskan mills from competing effectively in "lower 48" markets.

With Alaska's recent population growth, Alaskan markets for lumber and other wood products have increased significantly. Further growth in demand is expected through the forseeable future, particularly in the Kenai Peninsula, Anchorage and Fairbanks areas. Surprisingly, however, imports from Canada and the Pacific Northwest have risen sharply, and the percent of Alaska's consumption of wood products consumed in Alaska which were produced in the State has fallen dramatically in both absolute and real terms. From 1961 to 1968 alone, Alaskan lumber producers' output fell from 25.5 million board feet (46 percent of 1961 Alaskan consumption) to 13.9 million board feet (23 percent of 1968 Alaskan consumption). This fall appears to have been caused by increased competition from cheaper Canadian and Pacific Northwestern lumber, increased Japanese demand for round log exports and poor quality control of domestically produced lumber. Recent studies have also questioned whether Alaskan markets are large enough to support efficiently sized processing plants, particularly for specialized products (Lindh, 1979).

Since most of the timber in the south Kachemak Bay area will be privately owned, increased logging and export of round logs may be expected over the next two decades. This presumes that Japanese demand remains strong, primary processing requirements are not extended to timber harvested from privately owned land, and logs from State and Federally-owned land will continue to require primary processing.

Given these conditions, two major options exist for the role of forest products in Seldovia's economy. The first option is to maximize economic return at the expense of creation of employment. This, of course, would be accelerated logging by Native corporations with round log export. Seldovia could participate through local Seldovia Native Association, Inc. employment and profit distributions to SNA shareholders residing locally. If the harbor was dredged and the City dock lengthened, it might also be possible to load round logs and cants aboard oceangoing freighters for export to Japan. This would create some benefits, such as increased stumpage receipts for timber owners, increased City revenues, relocation of longshoring jobs to Seldovia and some increases in Seldovia's retail trade. The potential disadvantages of this option, however, include the high costs of improving and maintaining the dock and harbor, traffic congestion and safety hazards from increased log truck traffic, noise, air pollution, and possible interference with ferry and fishing boat movements in the harbor. Long-term employment gains would also be minimal. On balance, costs appear to outweigh benefits.

The second option for Seldovia's forest products industry development would involve developing a small to medium size sawmill in or near Seldovia to process cants for foreign export (from logs originating on State and Federal lands) and/or produce dimensional lumber for southcentral Alaskan markets. Private income from timber sales would be reduced in comparison with the first option, but would be partially or fully offset by gains in local employment, trade and community development.

Should this option be pursued, several basic requirements would need to be met. First, the mill owner/operator would need to be guaranteed a source of log supply at prices which would enable the mill to compete in local and/or export markets. (Since Native corporations would be giving up future income to enter into such an agreement, participation in ownership of a sawmill enterprise would assure that stumpage value losses would be partially offset by mill profits).

Second, transportation links would need to be improved. Improved loading of ocean freighters or transportation links with Homer would be needed to enable the mill to effectively compete in local and export markets.

A sawmill would also require specific site and service features, including land for plant, log, product and chip storage, waterfront access for log rafting from roadless areas (this may be separate from the plant itself) and a good electrical power source.

It might also be possible to have two separate sawmills in the area. One could cut large sawtimber for export markets, while a second could cut small timber into dimensional lumber for sale to the South Kachemak Bay area and other parts of Kenai Peninsula. Such an operation could utilize a small, portable sawmill and could initially employ two to four persons.

Whichever approach is chosen, Seldovia can diversify its economy and expand its participation in the forest products industry if public and private organizations

from both Seldovia and other areas work together for mutual advantage. Without mutual cooperation, Seldovia's potential simply may not be realized.

MARINE SERVICE FOR OFFSHORE PETROLEUM EXPLORATION AND DEVELOPMENT

A recent report prepared for the Alaska Department of Community and Regional Affairs (Alaska Consultants, Inc., 1976) identified six basic location requirements for marine service bases. The requirements were:

- o Proximity to offshore oil or gas activity;
- o A sheltered harbor of suitable size and draft with available capacity;
- o An adequate waterfront site with contiguous back-up lands;
- o A good airport/heliport;
- o Adequate roads; and
- o Proximity to an established community with a reasonable infrastructure.

Other intangible factors, such as a favorable community attitude, and availability of sites which exploration operators can exclusively use, are also important.

Even though lower Cook Inlet oil exploration has not yet shown commercially feasible discoveries, additional oil lease sales are scheduled for the area, and exploration efforts are likely to continue. Seldovia's ice-free harbor, port and utility facilities, and proximity to lease sale areas, when coupled with the scarcity of adequate nearby port sites, make Seldovia an attractive potential location for a service base for oil exploration and development.

Figure II-2 is reproduced from a recent study of oil-related operations and requirements for servicing exploration activities, although water storage and treatment improvements are needed for Seldovia to assume a substantial supply role. Should commercial quantities of petroleum be found, Seldovia could become the site of marine service base, if public service improvements are made to achieve the requirements noted above, and Seldovia is able to offer a readily available site at a competitive price. Improvements which would increase Seldovia's attractiveness as a marine service base site are listed in the following paragraphs.

Airport Improvements - Seldovia's airport is capable of accommodating single engine and small multi-engine airplanes. Surrounding topography and runway length, however, limit size of airplane which can safely land at the airport, and lack of navigational aids limit flying time to daylight hours with good visibility. According to Alaska Consultants, Inc. (1976), heavy aircraft and foul weather navigation capabilities are important, although not essential, attributes to service marine developments. Helicopter landing capabilities are also needed.

Water Transportation Improvements - If heavy cargo aircraft accessibility is not feasible, year-round water access is essential to movement of necessary supplies. Again, if State ferry runs cannot be extended to year-round operation and frequency increased when needed, then other means of transport, such as chartered or scheduled tug-and-barge, must be available. Loading and unloading facilities must be adequate, and probably can be reasonably served by the existing City dock.

Potable Water Supply Capability - According to Alaska Consultants, Inc. (1976), a marine services function usually requires that the service boats be able to purchase 200,000 gallons of potable water at least weekly from the community in which the service base is located. Hence, Seldovia would need to improve its storage capacity significantly if other needs (residential, fish processing, institutional and fire flow) are to be met simultaneously. Chapter 9 discusses how water supply needs can be met.

Access To Deep-Water Dock And Fuel Supplies - Since most of the boats supplying drilling and production rigs are quite large (150 feet or more), deep-water docking and turning basin capability must be available. Exploration companies often are willing to pay a premium to obtain exclusive use of a deep-water dock to gain greater control over supply ship movements. Fuel supply capability is also needed. Seldovia's dock and fuel supply capabilities appear to meet this requirement particularly well.

Flat Upland Areas Capable of Equipment and Supply Storage - In an effort to avoid supply bottlenecks, oil companies and construction and drilling contractors often seek to stockpile materials and supplies (such as pipe, drilling mud and spare parts) well in advance of anticipated use. Stockpiling requires large, flat, well-drained upland areas ranging in size from as small as a few acres to as large as 100 acres, averaging 25 acres. Of course, the storage area or areas must be accessible by road to loading and unloading docks. Small areas are available within the City at the north end of the industrial area along Main Street; larger suitable areas are available north of the City in the developable lands identified in Figure 5-7.

Housing For Workers - Although most exploration and construction workers choose to live in areas well removed from the service base, some housing is needed for land-based workers. Housing needs are usually moderate (10 to 50 units, depending on the size and scale of operation), and are mostly temporary as OCS-related employment drops following completion of construction. Additional housing is often needed to house local service and trade workers. (See Chapter 3 for employment and population projections and Chapter 4 for housing demand projections).

Even though lower Cook Inlet oil exploration finds have not been promising, exploration will continue and additional oil lease sales held. Since supply bases already exist at Nikiski, exploration contractors have utilized, and will probably continue to utilize, existing facilities until commercial discoveries and start-up of large scale construction make use of existing bases impractical. Commercial discoveries, of course, are extremely difficult to predict, hence timing of potential marine service base development cannot be reliably predicted.

FIGURE 11-2
LOCATION REQUIREMENTS OF MARINE SERVICE BASES

SERVICES and FACILITIES / Individual Categories / OPERATIONS arranged in sequence of development	Accommodation and Catering			Ports			Transportation							Communications			Supply Handling and Storage				Engineering/Industrial Supplies and Services									
	Housing	Work Camps and other Temporary Accommodation	Contract Catering, Laundry Services, etc.	All-weather Harbors – medium draft	All-weather Harbors – deep draft	Very deep water Harbors close inshore	Service Vessels and Tugs	Cargo Vessels, Coastal Tankers and Barges	Large Tankers	Rail Transport	Heavy Road Transport	Scheduled and Chartered Air Services	Helicopter Services	Standby Safety Vessels	Navigational Aids	Telecommunication	Open Storage	Warehousing	Specialized Storage (silos, tanks, etc.)	Freight Handling, Customs, etc.	Dredging	Land Reclamation	Machinery Repairs and Servicing	Steel Fabrication	Equipment Rental (Compressors, welding, drilling equipment, etc.)	Industrial Gases	Muds and Mineral Fluids	Diving Services	Specialized Drilling Services	Engineering and Scientific Consultancy
1. Geophysical and Oceanographic Exploration	○	○	○	●	○	○	○	○	○	○	○	●	○	○	●	●	○	●	○	●	○	○	○	○	○	●	○	○	●	●
2. Construction of Service Bases and Ports	○	●	●	○	○	○	○	●	○	○	○	●	○	○	○	○	●	○	●	●	●	●	●	●	●	●	○	●	○	●
3. Service Base Operation	●	○	●	●	○	○	●	●	○	◐	◐	●	●	○	●	●	●	●	●	●	◐	○	●	●	●	●	●	●	●	●
4. Oil Rig Operation	●	○	●	●	○	○	●	○	○	◐	◐	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
5a Production Platform Construction	●	●	●	○	○	●	○	●	○	◐	◐	●	○	○	○	○	●	○	●	○	●	●	●	●	●	●	○	●	○	●
5b Module Construction	●	○	●	○	○	○	○	●	○	◐	●	○	○	○	○	○	●	●	○	●	○	○	●	●	●	●	○	○	○	●
6. Collection Station Construction	○	●	●	●	○	○	○	●	○	◐	◐	●	○	○	○	○	●	●	●	●	○	○	●	●	●	●	○	○	○	●
7. Tanker Terminal Construction	○	●	●	○	●	○	○	●	○	◐	◐	●	○	○	○	○	●	○	●	●	●	●	●	●	●	●	○	●	○	●
8a Pipe-Laying and Burying — Sea	○	○	●	●	○	○	●	●	○	◐	◐	●	●	○	●	●	●	●	●	●	●	○	●	○	○	●	○	●	○	●
8a Pipe-Laying and Burying — Land	○	●	●	○	○	○	○	○	○	◐	◐	●	●	○	○	●	●	○	○	●	○	○	●	○	●	●	○	○	○	●
8b Production Platform Installation	○	○	●	●	○	○	●	●	○	●	●	●	●	○	●	●	○	○	○	●	○	○	●	○	●	●	○	●	○	●
9. Production Platform Drilling	●	○	●	●	○	○	●	○	○	◐	◐	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
10a Production Platform Operation and Workover	●	○	●	●	●	○	●	○	◐	◐	◐	●	●	●	●	●	●	●	●	●	○	○	●	●	●	●	●	●	●	●
10b Collection Station Operation	●	○	○	○	○	○	○	●	○	●	●	●	○	○	○	●	○	○	●	○	○	○	●	○	○	○	○	○	○	●
10c Tanker Terminal Operation	●	○	○	○	●	○	●	●	●	●	●	●	○	○	●	●	○	○	●	●	◐	○	●	○	○	○	○	◐	○	●
Management of Exploration and Production	●	○	○	○	○	○	○	○	○	○	○	●	●	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	●	●

KEY

● Required

◐ Possibly required

○ Not required

Note: *Other existing local services which have to be greatly expanded to serve the oil industry include: hotels, bars, restaurants, car rental and taxi services, travel agencies, banking and insurance, secretarial services, lawyers, real estate agents and employment agencies.*

Building and construction trades are particularly heavily employed, with labor shortages quickly developing.

Reprinted From Alaska Consultants, Inc. (1976).

In light of such uncertainty, Seldovia's actions should probably continue to be limited to planning and those investments which can also be utilized for other uses (such as the proposed water system improvements). Speculative development could follow after firm committments have been received from oil companies or contractors to fully support construction of the facilities. Steps which Seldovia can take include:

- Continuing discussions with oil companies and contractors regarding potential interest in and use of Seldovia as a marine service base site, including potential sites. All parties which may potentially be involved (including the community at large) should be included in the discussions.
- Initiation and completion of public improvements necessary for marine service base use but also useful for other activities.
- Improvements necessary only for oil industry use are best deferred until firm committments can be obtained. If committments cannot be obtained but improvements are essential to attracting oil firms, the Federal Coastal Energy Impact Program provides loan funds which can be forgiven if planned utilization of the improvement does not materialize or is cut short unexpectedly (see Appendix E for a description of this program).

LOCAL SERVICES AND TRADE

Seldovia's local services and trade sectors are surprisingly well developed given the size of the community and local trade area. Many full and part-time businesses have been established by enterprising residents, and while not all attempts have succeeded, the successes are much greater than many other communities of Seldovia's size.

There are perhaps three major reasons for Seldovia's accomplishments to date in this field. First, some local residents have prospered in other endeavors (principally fishing and construction work) which have given them investment funds with which to start a business; tax laws tend to give such individuals strong incentives to start a business to avoid heavy taxation.

Second, Seldovians appear to have a strong entrepreneurial spirit. The community's tradition of independence and adaptability apparently endows many with a strong desire for being self employed, rather than working for someone else.

Finally, the community itself is generally quite supportive of local businesses, to the point that local purchases appear to be preferred whenever possible, even when greater selection and lower prices may be obtained in larger communities.

Still, Seldovia's trade and services sector has not yet reached its potential, and a number of promising enterprises have not persisted. Although individual reasons may vary, most failures or undeveloped opportunities can probably be traced to one or more of the following factors:

- *Financing* - New businesses have difficulty raising sufficient funds to purchase land, construct buildings, purchase inventory, hire and train workers and survive the first few lean years until a steady trade can be built up. Even where private or public financing is available, down payment and collateral requirements are large enough to dissuade all but the most financially able from starting a business.
- *Size Of Trade Area* - With only 600 year-round residents within driving range of Seldovia, potential markets are limited for most businesses. A small amount of trade also comes from Port Graham and English Bay, but lack of road access limits trade.
- *Cost And Reliability Of Transportation Linkages* - With present transportation methods, Seldovia lacks a reliable, low cost, year-round transportation linkage with supply sources. Small, low volume businesses are especially affected as they have difficulty lowering per unit transportation costs to a competitive level.
- *Lack Of Available, Suitable Sites* - Although not as critical as other problems, new businesses have an especially difficult time securing suitable sites at affordable prices. Even fully serviced, subsidized sites in Seldovia's urban renewal area may be difficult for a new business to finance successfully.
- *Lack Of Experience* - Some entrepreneurs attempt to start a new business in which they have no managerial experience; the lack of experience leads to significantly more mistakes than an experienced entrepreneur would make. Often, such mistakes can be fatal to the business.
- *Greater Income-Earning Opportunities Elsewhere* - Most small business owners earn relatively low incomes during the first few years of the business operation, since most profits must be reinvested into the business and a steady trade built up. Much greater income-earning opportunities are often available in fishing or construction work; as a result, some businesspersons become impatient with their business and take higher paying opportunities in other occupations.

A wide range of actions could be pursued to improve the size, strength and vitality of Seldovia's trade and services businesses. One study of nine small communities across the country had the following eleven suggestions for improving the survival of services and trade businesses (Deran, 1963):

- *Choose location carefully;*
- *Obtain experience, preferably managerial, in the same or a related line.*
- *Be sure to have a large enough capital fund.*
- *Do not hope to become a* (business owner) *unless you are a bright, competent person.*
- *Do not plan to hold a job at the unskilled or semiskilled level while operating a* (retail or service) *establishment.*
- *Develop new merchandising opportunities.*
- *Consider non-price competitive methods (e.g., advertising).*

- o *Be flexible in pricing.*
- o *Pay your sales personnel well; use sales incentive techniques.*
- o *If a full-time bookkeeper is impractical, arrange for a outside accountant; compute and use at least the simpler cost ratios.*
- o *Put your family to work in the store.*

While not all of these suggestions are appropriate for community action, some are very appropriate, as is described below.

First, capital sources can be improved. One of the major mechanisms which many communities (including Homer, Kenai, Seward and Soldotna) use to help small businesses obtain capital is to organize a local development corporation, a locally-chartered non-profit economic development organization.* Such organizations may obtain government grants and low cost loans, and may pass such financial assistance on to new or existing local businesses. Alternatively, low cost publically-subsidized or guaranteed loans may be obtained through a local private lender, State agencies (such as the Alaska Department of Commerce and Economic Development), bond sales to community residents or as a cooperative undertaking of all combined.

Second, trade area size could be increased by establishing year-round road access to Port Graham and English Bay. Better accessibility could substantially increase the amount of trade Seldovia businesses could capture from these communities. According to Kenai Peninsula Borough (1979), year-round population in these communities currently totals 340 year-round residents. Year-round road access between these communities and Seldovia, then, would effectively increase Seldovia's primary trade area by more than 50 percent, and could substantially improve trade volume for many businesses. In addition, increased trade area size could put Seldovia above the threshold, or minimum market size, for some businesses currently not feasible in Seldovia. Examples of new or expanded businesses affected by such an increase in trade area size include:

- o Bank (limited service)
- o Motel
- o Movie theater
- o Bowling alley
- o Radio station
- o Boat repair and supply
- o Barber shop/beautician
- o Newspaper
- o Bookkeeping service

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* For further information, see Practicing Law Institute (1970).

- o Appliance Sales and service
- o Furniture sales

Third, transportation improvements are greatly needed. Specifically, year-round, reliable, lower cost water transportation between Seldovia and Homer would lower costs of goods to retailers and improve the ability of merchants to stock a wide selection of goods. Stock turnover rates could also be increased, improving merchant inventory stocking capabilities.

Capital and financing problems could also be relieved greatly by establishing build-to-suit and lease-back sites. Many businesses or organizations lacking capital to build suitable facilities will sign a lease committment for desired facilities with a builder/developer, who builds the facility to suit the leasee and leases the facility back to the lesee for 10 to 20 years. At the end of the lease, the leasee is usually given the facility or has an option to purchase for a low price. Since some individuals and organizations appear to have suitable capital available for investment, private organizations could fill the role of builder/developer. Alternatively, a potential local development corporation could act as builder/developer.

Sites need to be kept available for business expansion, and necessary public improvements (water, sewer, etc.) made available. Again, a local development corporation or private organization could purchase sites and put in necessary improvements, perhaps as a build-to-suit combination office-retail-warehouse-industrial park. City decisions on sale or use of urban renewal lands also need to take availability of sites for business expansion into consideration.

Financial inducements, such as tax deferments, could be used to assist in the establishment of service trade businesses. This could be tried, but in view of the substantial help needed by many small businesses, would probably not be cost effective.

Finally, technical assistance could be made available either through a local development corporation or by local, State and Federal agencies (such as the Alaska Department of Commerce and Economic Development, or the Bureau of Indian Affairs). Results of these programs could be quite good.

PLANNED SOLUTIONS

Given the range of possible solutions outlined in the previous section, this section outlines planned policies and actions for Seldovia to achieve its economic development goal and associated objectives. The adopted goal and objectives, together with recommended policies and actions, are produced below.

GOAL: Large, stable and diverse economic base with new income and employment opportunities compatible with existing quality of life and emphasizing resident ownership.

OBJECTIVE: Establish bottomfish capabilities at one or more new or existing fish processing plants, and expand other fishing opportunities.

POLICY: Seldovia will support public and private efforts to expand and diversify Seldovia's fishing industry in public actions taken by the City and local private organizations. Assistance by outside organizations will also be utilized where appropriate.

ACTION 144: Improve water transportation system to provide year-round, reliable freight service for shipment of up to 600,000 pounds processed fishery products per year (through either State Marine Highway System or private carrier). (See Chapter 8 for further information).

ACTION 145: Improve quality and capacity of public water supplies by completing scheduled improvements to municipal water wystem. (See Chapters 6 and 9).

ACTION 146: Increase moorage space available for fishing fleet in 80 to 120 foot length range by completing proposed port improvements. (See Chapter 8).

ACTION 147: Improve municipal sewage treatment capabilities by completing sewage treatment plant and investigating alternative methods of processing and fishing boat waste disposal. (See Chapter 9).

ACTION 148: Improve access to sources of financing available for expansion or improvement of fishing fleet and processing plants by increasing contact with public and private lenders, joint ventures and establishment of a Seldovia local development corporation (if public and private sources are insufficient).

ACTION 149: Ensure that waterfront land is available for expansion of processing and marine services through public (City or local development corporation) ownership of waterfront sites. Implement by establishing short-term leases for temporary use of one or more desirable sites until acceptable proposal for suitable use is received.

ACTION 150: Expand range of services available to fishing boats to increase employment and fleet size through increased access to public and private lenders, local development corporation construction of facilities, and revolving loan program.

ACTION 151: Improve fisheries harvests by establishing local aquaculture programs (salmon, shrimp, oysters, etc.) in cooperation with Cook Inlet Regional Aquaculture Association and/or University of Alaska.

OBJECTIVE: Establish a marine service function to serve offshore industries (i.e., oil exploration and development) while minimizing impacts on community.

POLICY: Limited marine service functions will be encouraged, and consultations with oil companies continued, provided that public improvements will be made only when firm use committments, alternative uses or loan forgiveness are available to minimize Seldovia's risks.

ACTION 152: Request State to investigate feasibility of improvements to Seldovia Airport to expand airplane size capacity and foul weather or darkness navigational capability.

ACTION 153: Request State to increase ferry service to establish year-round, reliable service between Seldovia and Homer, with minimum of two round trips per week year-round, and minimum three round trips per week with maximum three day interval between trips between mid-May and mid-September. If State is not responsive, work with a private carrier to establish supplemental service. (See Chapter 8).

ACTION 154: Improve municipal water system. (See Chapters 6 and 9).

ACTION 155: Reserve housing and equipment storage sites for potential oil industry use (carried out by City, SNA or local development corporation).

ACTION 156: Continue discussions with oil companies concerning use of Seldovia for marine service base, involving community and Borough, State and Federal agencies, and initiating improvements only when firm committments for use or loan forgiveness are received.

OBJECTIVE: Establish other basic industrial activities to provide employment and income earning opportunities for residents.

POLICY: Economic diversification will be encouraged where compatible with existing lifestyle and quality of life.

ACTION 157: Explore with State, U.S. Forest Service and local Native corporations and private timber companies feasibility of reopening or establishing new local or export market oriented sawmill in or near Seldovia.

OBJECTIVE: Investigate feasibility of alternative financing mechanisms for industrial development-related improvements.

POLICY: Community efforts will be oriented towards increasing access to public and private lenders (both local and non-local) as well as creation of new mechanisms or organizations to finance worthwhile enterprises when appropriate.

ACTION 158: Encourage representatives of public and private lenders to visit with potential borrowers in Seldovia frequently.

ACTION 159: Encourage local organizations to act as builder/developer, leasing facilities to small businesses lacking capital to build their own facilities.

ACTION 160: Consider establishment of a Seldovia local development corporation to act as a local non-profit lender and developer, and implement if appropriate.

OBJECTIVE: Assure availability of sites for new or expanded industrial activity.

POLICY: Potential demands or needs for economic activities will be a prime consideration in community decisions.

ACTION 161: Consider future economic development needs in advisory zoning decisions and urban renewal lot disposal decisions (e.g., if site is only suitable one available for desired use, allow only short-term uses until desired activity begins or is no longer viable).

ACTION 162: Local private organizations or potential non-profit Seldovia local development corporation purchase options and/or full title to potential sites.

OBJECTIVE: Strengthen existing commercial activities, and establish new or additional commercial activities.

POLICY: Tourist trade will be encouraged where quality of life can be maintained and economic benefits maximized.

ACTION 163: Identify types of tourist trade with the greatest economic benefits and least disruption to Seldovia.

ACTION 164: Determine community support for tourist trade.

ACTION 165: Increase accessibility by improving air and water transportation links to Seldovia (such as float plane moorage and expanded summer ferry service).

ACTION 166: Improve accommodations for visitors (particularly new motel/hotel and remote seasonal lodge).

ACTION 167: Request State to develop campground at Kachemak Bay State Park or Outer Beach to accommodate recreational vehicle demand.

ACTION 168: Increase attractions for tourists, such as museum, events (Fourth of July, fishing derby, performing arts, etc.), organized charter fishing, renovated historical attractions and waterfront access and parks.

ACTION 169: Increase advertising and promotion of Seldovia by selected advertising in travel publications, organization of package tours with travel agents, and hosting of touring travel agents and photographers.

POLICY: Development of local services and trade activities will be encouraged in community actions and with outside assistance.

ACTION 170: Improve sources of financing available to existing and potential service and trade business (See Actions 158, 159, 160, 161 and 162).

ACTION 171: Increase trade area market size by encouraging extension of South Kachemak road network to Port Graham and English Bay.

ACTION 172: Improve water transportation links with Homer to increase merchant's buying power and selection of goods for sale.

ACTION 173: Arrange for improved sites to be available for business expansion.

ACTION 174: Arrange for technical assistance to local small businesses through public agencies, Seldovia Native Association, Inc., or potential Seldovia local development corporation.

Chapter 12
Capital Improvements Program

This capital improvements program is the culmination of the previous sections of this comprehensive plan which analyzed the probable development of Seldovia and recommended policies and actions to meet the community's objectives.

This chapter recommends a program for the construction of immediate and anticipated community facilities. The planned capital improvements, ab outlined in Figure 12-1, are fitted to the ability of Seldovia to finance such physical improvements. In order for this program to be realistic, however, it was necessary that the City's financial situation be analyzed and financial strategies evaluated.

The pressing need to rebuild and further develop Seldovia during the past decade and half has created enormous problems for community leaders; one of the most vexing of these has been the task of financing needed and desired community facilities.

Were the City to depend solely upon revenues derived from taxes and miscellaneous sources of income, a large number of the recommended capital improvements would necessarily have had to be curtailed. Most of the City's revenues must be devoted to operating and maintaining existing services; consequently, most capital improvements have been financed by outside assistance (grants-in-aid from State and Federal agencies) and by long-term borrowing. State and municipal laws limit the types of borrowing the City may engage in, and set strict limits on the procedures which the City must follow. (AS 29.58.010, et. seq.)

In addition to the City's ability to borrow funds for financing community facilities, State and Federal funds are often made available. A combination of funds left over from the City's General Fund (when such is the case), Capital Projects Fund, borrowed funds (through the sale of bonds), and State and Federal grants-in-aid is expected to realize the recommended Capital Improvement Program outlined in and described in Figure 12-1.

The program assumes that the 21 mill property tax levy to which the community is limited by State lax will prevail throughout the study period, although periodic reassessments by the Borough Assessor may increase the total amount of assessed valuation of real estate and personal property as used for tax purposes.

This chapter is presented in two parts. The first, the Capital Improvements Program, sets forth a schedule of construction, stating estimated costs for each individual project. The scheduling reflects the urgency or desirability of each project. The first six year period is treated in the greatest detail since conditions and priorities may change considerably by then.

The second section evaluates past revenue, expenditure and debt structure trends of the City of Seldovia during the past decade. Its purpose is to determine the amount of money available to the City from its own and outside sources to pay for recommended capital improvements. The section also explores alternative financing strategies, and develops a financial plan best suited to the needs and resources of Seldovia.

USES OF THE CAPITAL IMPROVEMENTS PROGRAM

One of the most important uses for this Capital Improvement Program should be to provide a framework on which to base public policy geared to the implementation of the City's comprehensive plan. Additional advantages of a Capital Improvement Program (CIP) are that it:

- Assures that projects will be executed in accordance with established priorities;
- Protects the community against political and vested-interest pressure;
- Ensures that projects are gauged to the community's ability to pay for them;
- Enables City officials to coordinate projects in such a manner as to produce efficiencies in both time and money spent;
- Allows City officials to take advantage of favorable bond markets;
- Aids local employment by allowing projects to be staged in such a manner so as to provide local employment during lags in the regional and national economy; and
- Encourages desirable development by assuring developers that needed public services will be available at a specific time and price.

The program outlined in the following section is not rigid or unchangeable. On the contrary, it is advisable to review it each year and to adjust and refine, where circumstances warrant, the construction schedule and cost estimates.

As was stated previously, the schedule of public works as outlined in the program extends from 1979 to 1990, particular attention paid to the period 1979 to 1985.

Projects recommended for the period between 1985 and 1990 are not scheduled in the same detail as projects in the first six years of the program. Annual reviews of the program will assure the proper scheduling, financing, and coordination of those projects grouped in the period 1985 to 1990. After each subsequent review of the program, the detailed six-year program should be updated by dropping the previous year (1979) and adding a year (1986) so that the detailed program will cover a six-year period at all times.

Capital Improvements Program

Figure 12-1, on the following pages, presents the capital improvements program for Seldovia. The figure describes the cost, timing, sources of financing, status of plans and operating budget impact, where available, for each proposed

project. The projects are listed according to their rated priority. (Figure 9-1 in Chapter 9 shows the location of each proposed project).

Table 12-3 summarizes the program for the period 1979 through 1986. Costs of all proposed capital improvements during the period totals slightly over $5.4 million in 1979 prices. Over half of total costs are for improvements to the City's water and sewer system. One-sixth of the cost would be for streets and roads improvements, and the remaining third is for other public facilities.

Over four-fifths of the amounts needed to be raised would proably come from outside assistance (State and Federal assistance grants-in-aid). Even though outside financial aid would probably reduce the City's share to less than one-fifth of total costs, the nearly 1.1 million of cash which the City would need to raise from its own sources is much greater than is likely to be reasonably diverted from the General Fund. Additional funds will need to be raised from long-term borrowing (bonds, loans) and direct contributions from private individuals (such as Special Assessment Districts or developer utility hook-up fees).

Several precautions should be noted by the reader in viewing these figures. First, grant-in-aid sources are projected, but cannot be guaranteed. Availability of grant funds to Seldovia depends on many factors which cannot be predicted, such as amount of funds available and degree of competition from other communities for available funds. If particular grant-in-aid sources are not available as anticipated, other grants-in-aid might be obtained, or the difference financed out of local funds, or the project might be delayed until revenues are available.

Second, future price inflation has not been projected in the costs shown. Inflation is very difficult to project over a long-range period; however, City General Fund revenues have increased at slightly more than the rate of price inflation during the last decade, so inflation would probably not affect the viability of the program. Also, since the improvements will serve additional areas of Seldovia, additional development will likely occur and increase the City's revenues further.

Finally, the City's operating budget will be impacted by the implementation of this program. Although not estimated in most cases, operating costs in many categories of service may rise if new facilities (such as the sewage treatment plant) are to be properly maintained.

FINANCING OF CAPITAL IMPROVEMENTS

A variety of sources can be used to finance capital improvements. The sources can be classified into three major categories:

- Ongoing operations of the City (funds remaining after debt service and operations expenses have been covered);
- Issuance of long-term debt; and
- Cash contributions by other governments or parties (particularly grants-in-aid from State and Federal governments).

FIGURE 12-1
SEVEN YEAR CAPITAL IMPROVEMENTS PROGRAM
CITY OF SELDOVIA

Proj. No.	PROJECT	Est. Operating Budget Impact	Prior Expenditures	EXPENDITURES BY FISCAL YEAR AND SOURCE OF FUNDS (Thousands of dollars) 1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	Seven Year Total	Cost Beyond Program Period	Status Of Plans	REMARKS
1.	Water Filtration Plant	NA	-	GOB $119.7 GIA $196.4							$316.1	-	3	Design underway
2.	Chlorination Facilities For Water System	NA	-	GOB $43.4 GIA $71.3							$114.7	-	3	Design underway
3.	500,000 Gallon Water Storage Tank At U.S. Reserve Site	NA	-	GOB $217.6 GIA $357.3 CFO-LLB-							$574.9	-	3	Design Completed Bid 12/79
4.	Alder Street Extension	-	-		GIA $32.2 CFO $28.2 LLB $20.1						$ 80.5	-	1	
5.	East Addition Water Line Extension	NA	-		GIA $64.8 LLB $43.2						$108.0	-	1	Proposed
6.	Water Pressure Reducing Station	NA	-		CFO $3.0						$ 3.0	-	1	
7.	Police Station (Including Jail)	NE	NA		GOB $35.8 GIA $125.2 CFO $17.8						$178.8	-	3	
8.	East Addition Sewer Extension	NA	-		GIA $214.5 CFO $107.3 LLB $107.3						$429.1	-	1	
9.	Rehabilitate Existing Sewer Pump Stations	NA	-		GOB $14.3 GIA $17.9 CFO $ 3.6						$ 35.8		2	Combined With Sewer Treatment Plant Project
10.	Fire Hall	NE	NA			GOB $18.3 GIA $208.0 CFO $33.7					$260.0	-	3	
11.	Sewage Treatment Plant (Oxidation Ditch Design)	$40.6 Increase	-			GOB $137.4 GIA$1490.5 CFO $28.2					$1,656.1	-	2	Draft Facility Plan Proposed
12.	Airport Avenue Watermain Extension	NA	-				GIA $89.5 CFO $22.3 LLB$37.3				$149.1	-	1	Proposed
13.	Interconnect 10" Water Lines At Winnifred Way	NA	-				GIA $46.9 CFO $11.7 LLB $19.5				$ 78.1	-	1	Proposed
14.	Ferry Terminal	NE	NA				GIA $16.0 CFO $11.7				$ 21.3	-	1	
15.	Extend Sewer On Hill St., Church St., Alaska St. And Vista Avenue	NA	-				LLB$32.0 CFO $19.1 GIA $76.7				$127.8	-	1	

FIGURE 12-1
SEVEN YEAR CAPITAL IMPROVEMENTS PROGRAM
CITY OF SELDOVIA

Proj. No.	PROJECT	Est. Operating Budget Impact	Prior Expenditures	EXPENDITURES BY FISCAL YEAR AND SOURCE OF FUNDS 1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	Seven Year Total	Cost Beyond Program Period	Status Of Plans	REMARKS
16.	Shoreline Drive Sewer Pump Station	NA	-	GIA $246.2 CFO $61.6 LLB $102.6							$410.4	-	1	
17.	Harbor Improvements	NE	NA				GIA$1046.3 CFO $11.6 LLB $104.6				$1,162.5	-	1	
18.	Airport Improvements	NE	NA				GIA $145.0 CFO $10.0				$155.0	-	1	
19.	Extension Of "A" Street	-	-				GIA $48.8 CFO $12.2 LLB$20.4				$ 81.4		1	
20.	Construct "B" Street	NE	NA				GIA $17.5 CFO $8.7 LLB $8.7				$ 34.9	-	1	
21	Extension Of Vista Street	-	-				GIA $34.9 CFO $17.5 LLB $17.4				$ 69.8		1	
22.	Construction Of Willard Way	NE	NA				GIA $34.9 CFO $17.5 LLB $17.4				$ 69.8		1	
23.	Extend Augustine Avenue	NE	NA				GIA $17.5 CFO $8.7 LLB $17.4				$ 34.9	-	1	
24.	Spillum Street Extension	NE	NA					GIA $44.4 CFO $22.3 LLB $22.2			$ 88.9		1	
25.	Dog Pound	NE	NA					CFO $3.4			$ 3.4	-	1	
26.	Signing & Survey Of One-Way Couplet (Cedar And Kachemak Streets)	-	-					CFN $6.1			$ 6.1	-	1	
27.	Fulmor Street Extension	NE	NA					GIA $50.8 CFO $25.4 LLB $25.4			$101.6		1	
28.	Morgue	NE	NA					CFO $8.5			$ 8.5	-	1	
29.	Upgrade Shoreline Drive	NE	NA					GIA $71.0 CFO $42.6 LLB $28.4			$142.0	-	1	

FIGURE 12-1
SEVEN YEAR CAPITAL IMPROVEMENTS PROGRAM
CITY OF SELDOVIA

Proj. No.	PROJECT	Est. Operating Budget Impact	Prior Expenditures	EXPENDITURES BY FISCAL YEAR AND SOURCE OF FUNDS 1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	Seven Year Total	Cost Beyond Program Period	Status Of Plans	REMARKS
30.	Outer Beach Regional Park	NE	NA					GOB $26.9 GIA $100.0			$126.9	-	1	
31.	Construct "C" Street	NE	NA					GIA $12.7 CFO $6.3 LLB $6.4			$ 35.4	-	1	
32.	Improve City Storage Yard	NE	NA					CFO $16.9			$ 16.9	-	1	
33.	Waterfront Park	NE	NA					GOB $26.9 GIA $100.0			$126.9	-	1	
34.	Extension Of Malcolm Street	-	-					GIA $38.1 CFO $19.1 LLB $19.0			$ 76.2	-	1	
35.	Construct Cul-de-sac Off Of "D" Street	NE	NA						GIA $16.6 CFO $4.2 LLB $6.9	$ 27.7			1	
36.	Bloch Street Extension	NE	NA						GIA $66.4 CFO $16.6 LLB $27.7	$110.7			1	
37.	"D" Street Extension	NE	NA						GIA $10.0 CFO $7.0 LLB $10.7	$ 27.7			1	
38.	Lake Susan Park	NE	NA						GOB $47.6 GIA $100.0	$147.6		-	1	
39.	Cemetery Improvements (Fencing, Crosses)	NE	NA						CFO $5.5	$ 5.5		-	1	
40.	Daycare & Youth Center (Remodel Old Hospital)	NE	NA						GOB $30.0 GIA $34.6	$ 64.6		-	1	Questionable
41.	TV Satellite Receiver Station	NE	NA						GOB $25.4 GIA $30.0	$ 55.4				
42.	Museum	NE	NA						GOB $47.6 GIA $100.0	$147.6		-	1	
43.	Construction Of Gravel Pedestrian Walkways	-	-									-	1	
44.	Construct Cul-de-sac In Russian Church Mobile Home Park	-	-									-	1	
TOTALS				$1,005.7	$835.2	$1916.1	$786.7	$1608.3	$722.8	$669.1				

Legend: Sources Of Funds:
GIA - Grants-In-Aid from State or Federal governments
CFO - Cash from operations
GOB - General obligation bonds (long-term debt)
LLB - Limited liability bonds (financed from user fees or special assessments; e.g., special assessment districts or revenue bonds)

Potential financing from each of these sources is discussed in the following sections.

Potential Financing From Operations

Funds potentially available to apply to capital improvements can be calculated based upon analysis of past, present and future trends in Seldovia's finances. The analysis, presented in Table 12-1, projects operating revenues, operating expenditures, currently committed debt service costs, and net operating budget impact of planned capital improvements. The remainder of revenues less costs is the financing potential for capital improvements from operations.

Revenues likely to be available from operations totals slightly over one million dollars in the seven year period from 1979-1980 to 1985-1986.

Potential Financing From Long-Term Debt

Since cash from operations do not appear to be sufficient to completely finance improvements when needed, the City may incur long-term debt in order to finance the improvements. The debt may be of either limited or unlimited liability - the former includes primarily bonds backed only by specific revenues, such as special assessments or utility system revenues. Unlimited liability debt, usually in the form of general obligation bonds, must be paid before any other city obligations.

Nationwide financial standards for general obligation debt vary, but frequently suggest that general obligation debt be no larger than 10 percent of the full market value of taxable real and personal property within the City. Limited liability debt is usually not included in this figure, but in no case should combined long-term debt exceed 15 percent of real and personal property value. Exceeding this figure would result in such large debt service obligations that services would need to be curtailed in order to meet the obligations.

Seldovia's combined property values have increased at a fairly rapid rate in recent years as a result of the continued economic recovery of the community. The increase has averaged about 19 percent per year in recent years. While this rapid growth rate may not be sustained, some continued growth may be expected. Based upon a statistical analysis of past rates of assessed valuation increase, a conservative projection of property value increase indicates a projected increase of about 9 percent per year.

If this increase occur and tax rates remain about the same, the City's property tax receipts would increase proportionately. Additional long-term debt financing would then be possible. Applying the 10 percent standard to potential general obligation debt, the City may issue additional long-term general obligation bonds to finance capital improvements. An additional $1.1 million in long-term general obligation bonds can be issued using the criterion (Table 12-2).

Other Sources Of Funds

The most common sources of financial assistance which might be made available to the City are grants-in-aid from the State and Federal governments. In the

TABLE 12-1
PROJECTED CAPITAL IMPROVEMENT FINANCING POTENTIAL
GENERATED BY OPERATIONS BY FISCAL YEAR

		1977-1978 (Actual)	1978-1979 (Actual)	1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	Seven Year Totals (FY1980 - FY 1986)
					(Thousands of dollars)						
	Projected Revenues										
	Operating Revenues										
1.	Intergovernmental	47.9	123.9	108.2	118.8	129.5	140.1	150.7	161.3	172.0	980.6
2.	Enterprises	65.4	180.0	124.7	133.8	142.9	152.0	161.1	170.2	179.3	1064.2
	Taxes & Licenses										
3.	Property Taxes	100.8	120.9	119.0	128.9	138.9	148.8	158.8	168.7	178.7	1041.7
4.	Other Taxes	64.7	71.8	72.5	80.4	88.2	96.0	103.8	111.6	119.4	671.9
5.	Other Revenues	57.5	43.1	43.9	48.0	52.2	56.3	60.4	64.6	68.7	394.1
6.	TOTAL OPERATING REVENUES	336.3	539.6	468.3	510.0	551.6	593.2	634.8	676.5	718.1	4152.5
	Projected Expenditures										
	Operating Expenditures										
7.	Labor Costs	100.1	195.6	156.4	170.0	183.6	197.2	210.8	224.4	238.0	1380.3
8.	Other Operating Expenditures	84.4	171.1	127.7	138.7	149.6	160.6	171.5	182.5	193.4	1124.0
	Cumulative Net Impact of Capital Improvements	-	-	-	48.4	52.9	57.7	63.0	68.8	75.2	366.0
9.	TOTAL OPERATING EXPENDITURES	184.5	366.8	284.1	357.0	386.1	415.5	445.3	475.7	506.6	2870.3
10.	Existing Obligated Debt Service		55.5	29.4	29.9	29.4	28.9	29.4	29.8	29.2	206.0
11.	TOTAL EXPENDITURES		422.3	313.5	387.0	415.5	444.3	474.7	505.5	535.8	3076.3
12.	Projected Financing Potential From Operations (Excluding Capital Projects Grants and Additional Long-Term Borrowing)		117.4	154.8	123.0	136.1	149.0	160.2	171.0	182.3	1076.2

Source: Pacific Rim Planners, Inc.

TABLE 12-2
PROJECTED LONG-TERM DEBT FINANCING POTENTIAL
BY FISCAL YEAR

		1977-1978 (Actual)	1978-1979 (Actual)	1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986
					(Thousands of dollars)					
1.	Estimated Full Value (Jan. 1 Of Year).	7,820.0	8,449.6	9,401.1	10,352.6	11,304.0	12,255.6	13,207.0	14,158.5	15,110.0
2.	Long-Term Financing Potential At 10% Of Full Value	782.0	845.0	940.0	1,035.3	1,130.0	1,226.0	1,321.0	1,416.0	1,511.0
	Less Obligated Debt									
3.	General Obligation Bonds	491.0	477.0	462.0	446.0	430.0	414.0	397.0	378.0	359.0
4.	Revenue Bonds	69.0	66.0	63.0	59.0	55.0	51.0	47.0	43.0	39.0
5.	Other (Contracts, Notes)	40.0	24.2	7.6	-	-	-	-	-	-
6.	TOTAL DEBT OBLIGATED	600.0	567.2	532.6	505.0	485.0	465.0	444.0	421.0	398.0
7.	Net Cumulative General Obligation Financing Potential At 10% Of Full Value	182.0	277.8	407.4	530.3	700.0	761.0	877.0	995.0	1,113.0
8.	TOTAL NEW LONG-TERM DEBT FINANCING POTENTIAL GENERATED BY YEAR	NA	95.9	129.6	123.0	170.0	61.0	116.0	118.0	118.0

Source: Pacific Rim Planners, Inc.

past decade, grants have provided most of the City's capital improvement funds; if the capital improvement objectives are to be met, a substantial amount of the necessary funds will need to be obtained from this source. Although Federal Aid has diminished recently, State aid has increased significantly, and is expected to provide most grant funds.

Financing Plan

The capital improvements financial requirements can be matched with available sources of financing to produce a financial plan for the capital improvements program, presented in Table 12-3, the financial plan describes amount and uses of financial resources available. Sources of funds used, cost of improvements financed, and ending financial resources available for each year of the program.

Two precautions should be noted. First, project costs are assumed to increase at a 9.2 percent annual rate from a mid-1979 base, based upon recent nationwide construction rates. Since inflation varies greatly it is difficult to predict accurately, the cost estimates should be revised as better estimates become available.

Since sources of financing are also variable, estimates of financial sources should also be revised as better figures become available.

TABLE 12-3
PROJECTED FINANCING OF CAPITAL IMPROVEMENTS PROGRAM

		1979-1980	1980-1981	1981-1982	1982-1983	1983-1984	1984-1985	1985-1986
					(Thousands of dollars)			
1.	Unadjusted Total Cost Of Projects Needed X Inflation From Previous Period (@ 9.2%/yr.)	5469.5	4966.9	4588.7	3094.8	2592.8	1223.0	612.7
2.	Inflation-Adjusted Project Cost	5972.6	5423.9	5010.8	3379.5	2831.3	1335.5	669.1
	Available Sources Of Financing:							
3.	Cash available from operations (cumulative)*	154.8	177.8	144.0	221.1	251.3	326.1	347.8
4.	Cash available from Capital Projects Fund**	-	50.0	60.0	70.0	80.0	90.0	100.0
5.	Long-term G.O. debt financing potential available***	407.4	149.7	170.0	75.3	191.3	309.3	373.5
6.	Projected Grants-In-Aid	625.0	454.6	1698.5	475.3	1344.9	417.0	397.6
7.	TOTAL FINANCIAL RESOURCES AVAILABLE	1187.2	832.1	2229.2	841.7	1867.5	1142.4	1218.9
	Uses Of Funds:							
8.	Allocation to Capital Fund balance	50.0	10.0	10.0	10.0	10.0	10.0	10.0
9.	Costs of projects constructed	1005.7	835.2	1916.1	786.7	1608.3	722.8	669.1
10.	TOTAL ALLOCATION OF RESOURCES	1055.7	845.2	1926.1	796.7	1618.3	732.8	679.1
	Source Of Funds Used:							
11.	Cash generated from operations (incl. Cap. Fund)	50.0	169.9	71.9	130.0	96.2	160.6	60.2
12.	Long-term G.O. debt incurred	380.7	50.1	155.7	-	-	53.8	165.6
13.	Long-term limited liability debt incurred	-	170.6	-	191.4	177.2	101.4	55.7
14.	Grants-In-Aid	625.0	454.6	1698.5	475.3	1344.9	417.0	397.6
15.	TOTAL OF FUNDS USED	1005.7	845.2	1926.1	796.7	1618.3	732.8	679.1
	Remaining Available Sources Of Financing:							
16.	Cash generated from operations	104.8	7.9	72.1	91.1	155.1	165.5	287.6
17.	Capital Fund balance	50.0	60.0	70.0	80.0	90.0	100.0	110.0
18.	Long-term G.O. debt potential remaining	26.7	99.6	14.3	75.3	191.3	255.5	207.9
19.	TOTAL AVAILABLE	181.7	167.5	156.4	246.4	436.4	521.0	605.5
20.	Cost Of Remaining Projects:	4966.9	4588.7	3094.8	2592.8	1223.0	612.7	.0

Source: Pacific Rim Planners, Inc.

Notes: * Derived from cash available from current year (Line 12, Table 12-1) plus ending balance from previous period (Line 16, this table).

** Shows net allocations to Capital Projects Fund from General Fund (cash available from operations).

*** Derived from G.O. Debt Financing Potential gained from operations for current year (Line 9, Table 12-2) plus ending balance from previous period (Line 18, this table).

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Appendices

APPENDIX A
GLOSSARY OF TERMS USED

Action. An officially adopted course of operation to attain an objective. (Example: Secure site and design treatment plant).

Budget. A plan to allot certain resources for defined items. (Example: ½ million dollars is appropriated to complete Project "A".

Criterion. Any established rule for testing or judgement. (Example: If grade of slope exceeds 25 percent, a site is considered unsuitable for home building).

Fund. A governmental account to which specific revenues are deposited, and from which only certain types of expenditures may be made. (Example: General Fund).

Goal. A desired level of achievement which reflects values. (Example: Adequate housing for all people).

Issue. A point, matter, or dispute, the resolution of which is of special or public importance. (Example: Lack of rental housing).

Liberty. Implies choice. The minimum amount of development adequate for survival is not satisfactory. There must be diversity in the environment so that people, within the limits of their personal resources, can make their own selections of where to live, work, shop, play, worship, learn and travel.

Life. An adequate supply of various items necessary for health and safety. To maximize our value of preserving life, planning policies should be aimed at the goal of providing adequate supplies of housing, commerce, industry, public facilities, transportation and open space.

Objective. A measurable short-range step toward achieving a goal. (Example: Build 9,000 units of low income housing by 1975).

Plan. A detailed method, formulated beforehand, for doing something. (Example: Land use plan).

Policy. An accepted or professed rule of action. (Example: Close-in building sites should receive priority for water and sewer extension).

Priority. An assignment of precedence in time, order or importance. (Example: Utilities before landscaping.)

Program. A plan of procedure or activity. (Example: Building maintenance program).

Project. A proposal of something to be done, a scheme. (Example: 20 units to be built on site "B").

Pursuit Of Happiness. Requires that people be able to achieve satisfaction and enjoyment in their activities. Thus, a certain quality must exist as well as an adequate supply and choice.

Standard. An approved basis for comparison which is measurable. (Example: Units must rent for under $300 per month).

Value. That which is believed to be intrinsically desirable. (Example: Life, liberty, pursuit of happiness).

APPENDIX B
SAMPLE WATERSHED MANAGEMENT ORDINANCE

The sample ordinance on the following pages, when reviewed by the City's attorney and then finalized and adopted, can be used by the City of Seldovia and the Kenai Peinsula Borough to implement the watershed management plan. This ordinance reflects the "Planned Solution" described in Chapter 6, and represents a combination of the "Open Watershed With Controls" approach, and the "Restricted Watershed" approach.

The ordinance allows construction in most of the Upper Watershed and in the Fish Creek Watershed, subject to controls on sewage disposal and stormwater runoff disposal. Timber harvesting and agricultural uses of land in the watershed are also permitted, subject to controls designed to minimize erosion and sedimentation into the streams and to prevent chemical contamination of the stream.

Assuming that municipal counsel finds no objection to use of AS 29.48.037, Seldovia could adopt and administer the ordinance with the concurrence (by resolution or ordinance) of the Borough. Alternately, the ordinance could be adopted by the Borough with City concurrence, and administered jointly by the Borough and City in a manner similar to that employed for zoning.

The ordinance presumes that the City chooses to adopt and administer its own ordinance in order to have maximum participation in all phases of watershed management. Other approaches might also be chosen, since some enforcement and administrative costs could be partially borne by other governments; however, all approaches require some local participation and costs.

Because of the City's limited staff size and funding, the ordinance relies on coordination with State resource agencies for approval of technical aspects of watershed activities (such as road design and sewage disposal), but places the City in the role of administration and enforcement.

Legal Basis

Under AS 29.48.037, the watershed management ordinance must specifically state that it applies outside of city limits; Borough concurrence (in the form of a resolution or ordinance) must also be obtained. Complex legal issues, such as the "taking of private property without compensation" issue, are involved, and should be addressed by qualified legal counsel prior to adopting the ordinance.

Implementation

The ordinance may be adopted by City Council action following normal parliamentary procedures (resolution, hearing, etc.) Following City adoption, Borough approval must also be obtained.

Portions of this ordinance, specifically the portions relating to areas covered, can be repealed or revised as the City proceeds to develop new sources of water or to relocate its reservoirs. Thus, controls might be relaxed in the Fish

Creek Watershed and enforced in the Seldovia River Watershed if the City develops the river as a new water supply.

Again, it should be emphasized that this sample ordinance should be reviewed and approved by City and Borough attorneys before City and Borough action is taken.

DRAFT WATERSHED MANAGEMENT ORDINANCE

Section 1. Title For Citation - Jurisdiction

Chapters through of the City of Seldovia Code of Ordinances shall be known and cited as the "Seldovia Watershed Protection Ordinance". As authorized by AS 29.48.037, this ordinance shall be applicable to all lands and waters within the municipal watersheds of the City of Seldovia, which watersheds are located outside the city limits of Seldovia.

Section 2. Findings And Purpose Of Provisions

The City of Seldovia finds that the water supply for the City of Seldovia is derived entirely from the "Fish Creek Watershed" and the "Upper Watershed", and that at certain times of the year it is necessary to derive water solely from the "Fish Creek Watershed". The City further finds that contamination caused by uncontrolled development in the watersheds would pose substantial danger to the health and safety of the people and business of the City of Seldovia.

These chapters are therefore adopted to protect and enhance the public health and safety by preventing the contamination, by sewage, sediment and other pollutants, of the water supply of the City of Seldovia.

Section 3. Definitions

"Logging roads" means a road, restricted from use by the general public by a locked gate or other barrier and prepared for the purpose for travel exclusively by log trucks, timber harvesting machinery and other vehicles necessary for timber management.

"Mining" means extraction from the earth, sediments or waters of any metallic or non-metallic mineral, sand, gravel, peat or construction rock.

"Person" means any individual, public or private corporation, political subdivision, government agency, municipality, industry, partnership, association, firm, trust, estate or any other entity.

"Roads" means any street, highway, or other course, paved or unpaved, for the purpose of motor vehicle travel, with the exception of logging roads.

"Waters" means any creek, river, tributary, pond, lake, or other surface drainage or associated wetland.

"Wetland" means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. (After 33 CFR 323.2(c)).

"Toxic substances" means those materials, or combinations of materials, including disease-causing agents, which after discharge and upon exposure, ingestion, inhalation or assimilation into any organism, either directly from

the environment or indirectly by ingestion through food chains, will, on the basis of information available, cause death, disease, behavioral abnormalities, malignancy, genetic mutations, physiological abnormalities (including malfunctions in reproduction) or physical deformations, in affected organisms or their offspring; the term includes the following substances, and any other substance identified as a toxic pollutant under Sec. 307(a) of the Clean Water Act of 1977 (33 U.S.C. Sec. 466 *et. seq.*):

Adrin/Dieldrin; Arsenic; Benzidine; Carbon tetrachloride; Cadmium; Dichlnrobenzidine; Chlorinated ethanes; Chloroform; Chormium; Demeton; Dishlorethylenes; Dinitrotoluene; Fluoranthens; Diphenylhydrazine; Endrin; Hexachlorocyclopentadiene; Ethylbenzene; Lindane; Mercury; Nickel; Nitrobenzene; Naphtalene; Silver; Vinyl Chloride; Acenaphthene; Antimony; Chlorinated benzenes; Chloralkyl eithers; DDT; Dichloropropane and Dichloropropene; Halomethanes; Malathion; Tetrachloraethylene; Trichloroethylene; Polynuclear aromatic hydrocarbons; Endosulfan; Mirex; Pentachlnrophenol; Phennl; Acrylonktrile; Asbestos; Benzene; Beryllium; Chlorinated Naphtalene; 2-Chlorophenol; Chlorophenols; Chlorophenoxy herbicides; Cyanide; 2, 4- Dichloraphenol; Acrolein; Chlordane; Nitrosamines; Copper; Dichlorobenzenes; Guthion; Haloethers; Hetpachlor; Hexachlorobutadiene; Hexachlorocyclohexane; Isophorone; Lead; Methoxychlor; Nitrophenois; Parathion; Phyhalate Esters; PCB's; Selenium; P-Dioxin; Thallium; Toluene; Toxaphene; Zinc; 2, 4-Dimethylphenol.

Section 4. Establishment Of Watersheds

The watersheds of the City of Seldovia are hereby divided into the following areas: (1) Fish Creek Watershed, lower portion; (2) Fish Creek Watershed, upper portion; and (3) Upper Watershed. The location and boundaries of the watersheds are set forth on the watershed map which accompanies this ordinance and is incorporated herein.

Section 5. Watershed Permit Required

No person shall engage in any use referred to in Section B of this ordinance until he has first obtained a watershed permit from the Seldovia City Council and unless he complies with the conditions imposed by that permit and with the conditions imposed by that permit and with the provisions of Section B.

Section 6. Watershed Permit Procedure

(1) A watershed permit applicant shall submit his watershed permit application to the office of the Seldovia City Manager. The application shall include the following:
   (a) Use or uses proposed;
   (b) Location of each use;
   (c) Duration of each use;
   (d) Description of the manner in which the applicable provisions of Section 8 will be met; and

(e) Indication of the manner in which the applicant has complied or will comply with all applicable State and Federal laws and regulations affecting water quality.

(2) Within 60 days of receipt of an application, the City Manager shall recommend to the Seldovia City Council whether to approve or deny issuance of watershed permit. In formulating this recommendation, the City Manager may consult with State and Federal agencies whose regulations affect water quality.

(3) Within 30 days of its receipt of the City Manager's recommendation, the City Council shall approve or deny the issuance of a watershed permit. If the permit is denied, the Council shall state in writing the reasons for the denial. If the permit is approved, the Council shall state in writing any conditions it may have imposed to ensure compliance with the provisions of Section 7 and with State and Federal requlations affecting water quality. Upon approval by the Council, the City Manager shall issue the permit.

(4) Any person affected by an action of the City Council taken under this ordinance may appeal that action by filing a written statement of appeal with the City Clerk within 30 days of the action appealed. Appeals from the City Council action shall be heard by the Superior Court.

Section 7. Initiation Of Amendments

(1) Amendment of provisions of this ordinance or of the boundaries of the watershed areas, may be initiated by the City Council, or the City Advisory Planning Commission.

(2) Any person may request an amendment to this ordinance if supported by petition of at least 50 voters registered in the Seldovia voting precinct.

(3) A request to initiate an amendment to this ordinance shall be submitted to the City Manager, who shall forward immediately the request to the City Advisory Planning Commission.

(4) A public hearing on the proposed amendment shall be held by the Advisory Planning Commission, and shall explicitly consider the consistency of the proposed amendment with the adopted Comprehensive Plan of the City, including the Watershed Management Plan. After public hearing, the Advisory Planning Commission shall send its recommendation to the City Council, together with certified copies of minutes and public records relating to the proposed ordinance.

(5) The City Council shall consider and act upon the proposed ordinance at its earliest convenient time.

Section 8. Watershed Uses Subject To Conditions

(1) Timber harvesting and removal and forest management are permitted in the Fish Creek and the Upper Watersheds subject to the following conditions:
(a) Except with respect to watercrossings as provided for in subsection (d), there shall be no timber harvesting or removal or construction of logging roads within 200', measured in a horizontal plane, of any

waters. In the event that the Department of Natural Resources has recommended to a particular applicant that a greater distance than 200' be left uncut, that recommendation shall supercede this subsection.

(b) There shall be no timber harvesting or removal or construction of logging roads on land where the slope exceeds 34 degrees or 70 percent.

(c) All logs shall be yarded using high-lead or similar cable yarding systems. Logs shall be yarded in an uphill direction only, with at least the leading end of the log suspended above the ground. No logs shall be yarded through waters. Tractor-yarding is prohibited.

(d) Water crossings by logging roads shall be minimized. Bridges shall be used and shall be constructed with no part of the bridge in the waters. Rechanneling of the watercourse and channeling through a culvert are prohibited.

(e) All cutover areas shall be replanted before the second winter after logging, unless the City receives written assurance from the office of the State Forester, Department of Natural Resources, that natural revegetation will be sufficient to prevent erosion of sediment into the waters.

(f) There shall be no application of fertilizers, herbicides, insecticides or other toxic substances.

(g) All trucks and other motorized equipment except stationary yarders, shall be stored and maintained at an operating base established by the landowner or logging contractor outside the watersheds. All fueling, lubricating and other maintenance, except for emergency repairs, shall be conducted at this operating base.

(h) The provisions of the Alaska Forest Practices Act of 1979, AS 41.17.0.0, *et. seq.*, and the regulations promulgated thereunder shall be strictly complied with as a minimum standard of water quality protection.

(2) Agricultural uses are permitted in the Fish Creek and Upper Watersheds subject to the following conditions:

(a) There shall be no application of chemical fertilizers, herbicides, insecticides, or other toxic substances.

(b) There shall be no application of any fertilizer, chemical or organic, within 200 feet of any waters.

(c) Grazing of livestock is prohibited within 200 feet of any waters.

(3) Construction activities, building development, mining and related uses are permitted in the Fish Creek Watershed and the Upper Watershed subject to the following conditions:

(a) Mining, excavation and construction of buildings and roads is prohibited within 200 feet feet of all waters, provided that this shall not prohibit the City of Seldovia from operating, maintaining or improving its water system.

(b) All buildings and roads shall both during and after construction be equipped with collection and disposal systems to transport stormwater runoff to a point downstream of the City's Fish Creek Reservoir.

(c) No buildings or roads shall be constructed until the applicant has complied with or demonstrates that he will comply with 18 AAC 72.010, 18 AAC 72.020, 18 AAC 72.065 and 18 AAC 80.020. The City may require that the applicant obtain proof of compliance in writing from the Department of Environmental Conservation.

(d) All buildings or structures, constructed or used for residential, commercial or industrial purposes shall, before occupancy, be connected to the sewage collection system of the City of Seldovia or such other sewage collection system that the City approves.

(e) There shall be no mining in the Upper Watershed or the upper portion of the Fish Creek Watershed.

(4) Other commercial or industrial uses not referred to in this section shall be permitted provided that all applicable State and Federal laws and regulations affecting water quality are strictly compiled with.

Section 9. Abatement Of Violations

(1) When a violation of the ordinance is discovered, the City Manager shall notify the person responsible for the violation by certified mail or by notice posted at the site of the violation. The notice shall specify the violation and order abatement as soon as is necessary to protect public health.

(2) If the violation is not corrected within the specified period the City Attorney is authorized to initiate an action to enjoin the violation and to recover civil penalities.

Section 10. Penalties

Every act or omission prohibited by this chapter is unlawful and any person who commits a violation is liable for a civil fine not to exceed $500.00 for each violation. Each act or omission of violation and every day upon which a violation occurs constitutes a new and separate violation.

Section 11. Severability

If any provision of this ordinance or its application to any person and circumstance is held by a competent court to be invalid, the remainder of the ordinance or the application of the provision to other persons or circumstances is not affected.

APPENDIX C
COMPLIANCE WITH STATE OF ALASKA COASTAL MANAGEMENT PROGRAM

Based on the regulations and guidelines of the Alaska Coastal Management Program, the Seldovia Comprehensive Plan substantially complies with many of the provisions of the Alaska Coastal Management Act of 1977. Compliance with specific guidelines and provisions of the Alaska Coastal Management Program (ACMP) is shown in the figure below.

ACMP GUIDELINE	MEETS PART OR ALL OF GUIDELINES Yes	No	COMMENTS
6 AAC 85.020 Statement Of Needs, Objectives, Goals	X		See Chapter 2 - Issues, Goals and Objectives
6 AAC 85.030 Description Of The Program Organization For Coastal Management		X	
6 AAC 85.040 Map Of Boundaries Of The Coastal Area Within The City Subject To The Program		X	
6 AAC 85.050 Resource Inventory Of Habitats			
Offshore Areas		X	
Estuaries		X	
Wetlands & Tidelands		X	
Rocky Islands/Sea-Cliffs		X	
Barrier Isl. & Lagoons		X	
High Energy Coasts		X	
Rivers, Lakes, Streams	X		See Chapter 6 - Watershed Management
Important Upland Habitats		X	
Major Cultural Resources	X		See Chapter 7 - Social Services
Land & Resource Mngt. Responsibilities	X		See Chapter 10 - Local Government
Historic/Arch. Resources	X		See Chapter 7 - Social Services-Recreation
6 AAC 85.060 Resource Analysis Which Describes: Significant changes in the resources inventoried, evaluation of environmental	X		Partially satisfied See Chapters 3 - Background For Planning, Chapter - 5 Land Use, Chapter 6 - Watershed Management

APPENDIX C
(CONTINUED)

ACMP GUIDELINE	MEETS PART OR ALL OF GUIDELINES Yes	No	COMMENTS
capability & sensitivity of resources and habitats, assessment of present and anticipated needs & demands for coastal habitats & resources			
6 AAC 85.070 Description of Land & Water Uses Subject To The Program Including:			
Coastal Development	X		See Chapter 5 - Land Use
Geophysical Hazard Areas	X		See Chapter 5 - Land Use
Recreation	X		See Chapter 7 - Social Services
Energy Facilities		X	
Transportation & Utilities	X		See Chapters 7 and 8
Fish & Seafood Processing		X	
Timber Harvest & Processing		X	
Mining & Mineral Processing		X	
Subsistence		X	
6 AAC 85.080 Description Of Uses & Activities Which Will Be Considered Proper & Improper Within The Coastal Area		X	Not Specifically Mentioned Although Related Subjects Are Addressed
6 AAC 85.090 Summary of Policies That Will Be Applied To The Land & Water Uses & Activities Subject To The Program			
Coastal Development			
Geophysical Hazard Areas		X	
Recreation	X		See Chapter 7 - Social Services
Energy Facilities		X	
Transportation & Utilities	X		See Chapters 8 and 9

APPENDIX C
(CONTINUED)

ACMP GUIDELINE	MEETS PART OR ALL OF GUIDELINES		COMMENTS
	Yes	No	
Fish/Seafood Processing		X	
Timber Harvest/ Processing		X	
Mining/Mineral Processing		X	
Subsistence		X	
Habitats		X	
Air/Land/Water Quality	X		See Chapter 6 - Watershed Management
Historic/Arch. Resources	X		See Chapter 7 - Social Services
6 AAC 85.020 Statement Of The City's Needs, Objectives Or Goals, Or The Comprehensive Land And Resource Use Plan	X		

APPENDIX D
EXAMPLE ENVIRONMENTAL IMPACT ASSESSMENT CHECKLIST

ENVIRONMENTAL IMPACTS	Yes	No	Maybe
1. EARTH. Will the proposal result in:			
(a) Unstable earth conditions or in changes in geological substructures?			
(b) Disruptions, displacements, compaction or overcovering of the soil?			
(c) Change in topography or ground surface relief features?			
(d) The destruction, covering or modification of any unique geologic or physical features?			
(e) Any increase in wind or water erosion of soils, either on or off the site?			
(f) Changes in desposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel or bed of a river, stream, lake, bay, inlet, or ocean?			
2. AIR. Will the proposal result in:			
(a) Air emissions or deterioration of ambient air quality?			
(b) The creation of objectional odors?			
(c) Alteration of air movement, moisture or temperature, or any change in climate, either locally or regionally?			
3. WATER. Will the proposal result in:			
(a) Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			
(b) Changes in absorption rates, drainage patterns, or the rate and amount of surface water runoffs?			
(c) Alterations to the course or flow of flood waters?			
(d) Change in the amount of surface water in any water body?			
(e) Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen, or turbidity?			

	Yes	No	Maybe
(f) Alteration of the direction or rate of flow of groundwaters?			
(g) Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?			
(h) Deterioration in groundwater quality, either through direct injection, or through the seepage of leachate, phosphates, detergents, waterborne virus or bacteria, or other substances into the groundwaters?			
(i) Reduction in the amount of water otherwise available for public water supplies?			
4. FLORA. Will the proposal result in: (a) Change in the diversity of species, or numbers of any species of flora (including trees, shrubs, grass, crops, microflora and aquatic plants)?			
(b) Reduction of the numbers of any unique, rare or endangered species of flora?			
(c) Introduction of new species of flora into an area, or in a barrier to the normal replenishment of existing species?			
(d) Reduction in acreage of any agricultural crop?			
5. FAUNA. Will the proposal result in: (a) Changes in the diversity of species, or numbers of any species of fauna (birds, land animals including reptiles, fish and shellfish, benthic organisms, insects or micro-fauna?			
(b) Reduction of the numbers of any unique, rare, or endangered species of fauna?			
(c) Introduction of new species of fauna into an area, or result in a barrier to the migration or movement of fauna?			
(d) Deterioration to existing fish or wildlife habitat?			
6. NOISE. Will the proposal increase existing noise levels?			
7. LIGHT AND GLARE. Will the proposal produce new light or glare?			

	Yes	No	Maybe
8. LAND USE. Will the proposal result in the alteration of the present or planned land use of an area?			
9. NATURAL RESOURCES. Will the proposal result in:			
(a) Increase in the rate of use of any natural resources?			
(b) Depletion of any nonrenewable natural resources?			
10. RISK OF UPSET. Does the proposal involve a risk of any explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?			
11. POPULATION. Will the proposal alter the location, distribution, density, or growth rate of the human population of an area?			
12. HOUSING. Will the proposal affect existing housing, or create a demand for additional housing?			
13. TRANSPORTATION/CIRCULATION. Will the proposal result in:			
(a) Generation of additional vehicular movement?			
(b) Effects on existing parking facilities, or demand for new parking?			
(c) Impact upon existing transportation systems?			
(d) Alterations to present patterns of circulation or movement of people and/or goods?			
(e) Alterations to waterborne, rail or air traffic?			
(f) Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?			
14. PUBLIC SERVICES. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas?			
(a) Fire Protection?			
(b) Police Protection?			
(c) Schools?			
(d) Parks or other recreational facilities?			
(e) Maintenance of public facilities, including roads?			
(f) Other governmental services?			

	Yes	No	Maybe
15. ENERGY. Will the proposal result in: (a) Use of substantial amounts of fuel or energy?			
(b) Demand upon existing sources of energy, or require the development of new soures of energy?			
16. UTILITIES. Will the proposal result in a need for new systems, or alterations to the following utilities: (a) Power or natural gas?			
(b) Communications systems?			
(c) Water?			
(d) Sewer or septic tanks?			
(e) Storm water drainage?			
(f) Solid waste and disposal?			
17. HUMAN HEALTH. Will the proposal result in the creation of any health hazard or potential health hazard (excluding mental health)?			
18. AESTHETICS. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of any aesthetically offensive site open to public view?			
19. RECREATION. Will the proposal result in an impact upon the quality or quantity of existing recreational opportunities?			
20. ARCHAEOLOGICAL/HISTORICAL. Will the proposal result in an alteration of a significant archaeological or historical site, structure, object or building?			

APPENDIX E
FUNDING SOURCES

Accomplishing the many capital improvements and community actions outlined in the preceeding chapters will require significantly larger amounts of funds than can be raised from local sources by the City and Borough alone. There are available, however, sources of financial assistance from the State and Federal governments which can make it possible for Seldovia to attain its goals and objectives.

This appendix is a summary of major State and Federal financial aid programs which can enable Seldovia to achieve the actions outlined in this plan. The programs covered are primarily those designed to provide financial assistance to specific capital improvement projects, but attention has also been given to important business, housing, and general economic assistance programs as well. Together they represent an important network of funding sources affecting both public and individual financial aid opportunities.

TRANSPORTATION PROGRAMS

AGENCY: DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS, STATE OF ALASKA

Program: Revenue Sharing Program-Municipal Services
Under this program, the State provides 100% funding for a variety of municipal needs, including transportation development and assistance. Projects may include small boat harbors and ports, airport development, and public and ice roads. Application forms are sent to municipalities and organized boroughs during August of each year.

Whom To Contact: Director, Division of Local Government Assistance
Department of Community and Regional Affairs
State of Alaska
Pouch B
Juneau, Alaska 99811

AGENCY: STATE DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

Program: Boat Harbor Aid
This program is designed to provide aid for the construction of small craft harbor facilities, including docks, launching ramps, floats, etc. The State provides 100% funding, distributed on a project by project basis. The amounts available vary, depending on legislative action.

AGENCY: DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES (Continued)

Program: Port Facilities Development

This program provides 90% funding (for municipalities under 5,000 population) to aid communities in the improvement of municipally owned and operated port facilities. The state funds are distributed on a project by project basis.

Program: Flood Control Projects

The purpose of this program is to aid, through state funding, the financing of federal flood control projects. For any municipality required to participate in a federal flood control project, the State will fund 90% of the non-federal costs of planning, land acquisition and construction. The availability of funds varies. Following the signing of an agreement, monies are paid to municipalities in reimbursement for actual expenditures made by the municipality.

Whom To Contact: Director, Division of Harbor Design and Construction
Department of Transportation and Public Facilities
State of Alaska
Pouch Z
Juneau, Alaska 99811

Program: Local Service Roads And Trails Program

This program provides 100% state funding to local jurisdictions for the purpose of developing roads and trails on routes that are not eligible for federal aid matching funds. Organized boroughs are eligible for a direct allocation and are encouraged to provide any additional funding toward completion of a given project. The organized borough submits a three year project program, indicating construction priorities, to the Regional Engineer for Design and Construction. The deadline for submittal is October 1st of each year.

Whom To Contact: Commissioner
Department of Transportation and Public Facilities
State of Alaska
Pouch Z
Juneau, Alaska 99811

Field Office: Central Regional Engineer for Design and Construction
Pouch 6900
Anchorage, Alaska 99502

AGENCY: FEDERAL HIGHWAY ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

Program: Highway Research, Planning and Construction

Through coordination with the State Transportation Department, local jurisdictions can apply for federal aid for use in planning, designing, constructing, repairing and acquiring rights-of-way for local roads, bridges, pedestrian walkways and related improvements. The initiative lies largely with the State in securing funding for projects at both the borough and city level. This is a large program, having funded the nationwide interstate highway system and, in February 1978, having completed construction of 13,000 miles of highway and 3,480 bridges. This high level of funding is expected to continue through 1980. To be eligible, most projects must be located in a "Federal aid" system, and approved by the State for submittal for federal funding.

Whom To Contact: Richard B. Gillette III
Federal Highway Administration
Federal Building,
709 West Ninth Street
P.O. Box 1648
Juneau, Alaska 99802 586-7418

AGENCY: FEDERAL AVIATION ADMINISTRATION, DEPARTMENT OF TRANSPORTATION

Program: Airport Development Aid Program

Grants, advisory services, and counseling is available under this program. State or local government agencies are eligible to apply for funds to be used for the construction, upgrading, or repairing of airport facilities. Assistance is available for use in land acquisition and on through the stages of obtaining and installing specialized navigational equipment. The federal government funds a maximum of 80% for commuter service airports.

Whom To Contact: Federal Aviation Administration
Alaska Region
Hill Building
632 Sixth Avenue
Anchorage, Alaska 99501 272-5561

AGENCY: MARITIME ADMINISTRATION, DEPARTMENT OF COMMERCE

Program: Development and Promotion of Ports and Intermodel transportation

This program will provide advisory services to State and local governments to promote port and port facilities development, and utilization. Some examples of programs funded include port facilities assessments, facilities feasibility studies, and port capability and productivity projects. Projects funded to date have tended to be large scale and statewide in nature, however, local government agencies and port authorities are eligible.

Whom To Contact: Thomas J. Patterson
Maritime Administration
Western Regional Office
450 Golden Gate Ave.
Box 36073
San Francisco, California 94102 (415) 556-3816

AGENCY: ARMY CORPS OF ENGINEERS, DEPARTMENT OF DEFENSE

Program: Navigation Projects
The objective of this program is to provide services in fulfilling general navigation needs, including harbor and waterway improvement projects. The local sponsoring agency holds responsibility for assuming project costs exceeding the $2,000,000 federal limit, as well as contributing land, public access facilities, and certain construction and maintenance costs related to the benefit of the community. Projects at 10 locations were under construction in 1978.

Program: Protection Of Essential Highways, Highway Bridge Approaches And Public Works
The Army Corps of Engineers will provide specialized services to provide bank protection of highways, highway bridges and certain public works which are endangered by flood-caused erosion. The project must be "justifiable economically" and "engineeringly feasible". A total of 31 projects were under construction in February 1978.

Program: Protection, Clearing And Straightening Channels
The program provides specialized services for the improvement of channels for navigational purposes, or for flood control. As with other Army Corps of Engineers projects, the project must be deemed "economically justifiable" and "engineeringly feasible". The local sponsoring agency must provide land, easements, public access, and at least, initial annual maintenance costs. Annual expenditures are limited to $300,000. Navigational improvements for other than short-term or emergency use may require congressional approval.

Whom To Contact: Col. George R. Robertson
U.S. Army Corps of Engineers
Alaska District
P. O. Box 7002
Anchorage, Alaska 99510 752-2605 or 279-1132

Additional general funding for transportation facilities such as; E.D.A. and H.U.D. (Block Grant) programs, may be found listed in last section of this chapter.

WATER, SEWER AND HEALTH FACILITIES

AGENCY: STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Program: Water And Sewer Aid
The State will fund, through this program, 50% of the non-federally funded portion of water and sewer capital improvements costs for any given municipality. The type of assistance is financial in nature with state bonds sold to provide applicable funds.

Program: Village Safe Water Program
The purpose of this program is to provide safe water and hygienic sewage disposal and bathing and laundry facilities in Alaskan villages. The type of assistance is financial or technical with funds coming from the sale of state bonds. Eligible communities are those comprised of between twenty-five and six hundred people residing within a two mile radius.

Whom To Contact: Commissioner
Department of Environmental Conservation
State of Alaska
Pouch O
Juneau, Alaska 99811

AGENCY: DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS, STATE OF ALASKA

Program: Revenue Sharing Program - Municipal Services
This state aid program provides 100% funding for a variety of municipal capital improvements and services needs, including health facilities and services. Application forms are sent to municipalities and organized boroughs during August of each year.

Whom To Contact: Director of Division of Local Government Assistance
Department of Community and Regional Affairs
State of Alaska
Pouch B
Juneau, Alaska 99811

AGENCY DEPARTMENT OF HEALTH AND SOCIAL SERVICES, STATE OF ALASKA

Program: Health Care Facilities
This program also provides funding for improvements to community health care facilities. Projects must be eligible for Public Law 93-641 Title XVI funds. State or local funds are matched with federal construction funds; the matching percentage varies. Funds are distributed to projects having the greatest need in accordance with the State Construction Plan.

Whom To Contact: Commissioner
Department of Health and Social Services
Pouch H-01
Juneau, Alaska 99811

AGENCY: DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Program: Mortgage Insurance - Hospital
This federal program provides for guaranteed/insured loans to insure lenders against loss of mortgages. The loans may be used to finance the construction or rehabilitation of private non-profit and proprietary hospitals. The maximum mortgage amount may not exceed 90% of facility replacement cost.

Whom To Contact: Insuring Office
Department of Housing and Urban Development
Region 10
334 W. 5th Ave.
Anchorage, Alaska 99501 (907) 272-5561

AGENCY: OFFICE OF WATER AND WASTE MANAGEMENT, ENVIRONMENTAL PROTECTION AGENCY

Program: Construction Grants For Wastewater Treatment Works
This program provides project grants for the construction of municipal and privately owned wastewater treatment facilities. Many communities have received assistance through this program for the construction of sewage treatment plants and the construction or rehabilitation of municipal sewage collection systems. The grantee must be responsible to require pre-treatment of industrial wastes and improving specific user charges. The federal grant may be for 75% of eligible project costs, or 85% for "innovative" or alternative technology projects.

Program: Loan Guarantees For Construction Of Treatment Works
The objective of this program is to provide incentive for construction of municipal sewage treatment works which meet state and federal water quality standards, particularly in cases where the inability to borrow necessary funds would prevent such construction. Loan guarantees are provided, with no matching requirements over and above an application fee of 1/8 of 1 percent of loan amount.

Whom To Contact: Jackie Dailey, Chief
Grants Administration Office
Environmental Protection Agency, Region 10
1200-6th Ave.
Seattle, Washington 98101 (206) 442-1096

AGENCY: HEALTH RESOURCES ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Program: Medical Facilities Construction - Project Grants
The federal project grants may be used for the replacement or renovation of publicly owned or operated medical facilities. Specific objectives are to eliminate safety hazards, with grants available to cover a wide range of construction or re-construction. The grants may not exceed 75% of the eligible costs.

Program: Medical Facilities Construction - Formula Grants
These grants, combined with local funds, may be used for the construction or replacement of facilities, the expansion or remodeling of existing facilities or buildings and equipment necessary for a construction project or for the provision of a new service in a community. The federal share may be up to 2/3 of total eligible costs but can also rise to 100% in rural poverty areas according to the State Medical Facilities Plan.

Program: Medical Facilities-Guaranteed/Insured Loans
This program provides direct and guaranteed/insured loans for the construction or replacement of health facilities, or the expansion or remodeling of existing facilities. Formula allotments are allocated among states based on population, per capita income, and need.

Whom To Contact: Facilities Development Branch
Health Planning Division
Department of Health, Education, and Welfare, Region 10
1321-Second Ave.
Seattle, Washington 98101

AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

Program: Water And Waste Disposal Systems For Rural Counties
Oriented toward rural areas and small communities, this program provides project grants and guaranteed loans for rural water facilities and waste disposal systems. The funds are allocated to the State based on rural population and number of households under proverty income level.

Whom To Contact: John R. Roderick
Farmers Home Administration
P. O. Box 1289
Palmer, Alaska 99645 (907) 745-2176

Additional general funding for water and sewer facilities such as E.D.A. and H.U.D. (Block Grant) programs, may be found listed in last section of this chapter.

EDUCATIONAL FACILITIES

AGENCY: DEPARTMENT OF EDUCATION, STATE OF ALASKA

Program: State Aid For School Construction
This program provides State aid to organized boroughs or cities for retirement of debt and reimbursement for cash expenditures for school construction. Eligible applicants are those jurisdictions mentioned which have incurred debt beginning two years previous to pay costs of school construction, or those having existing debt equal to 12% of the city assessed property valuation, on a prior approved project basis. State funds pay 80% of the cost of school construction.

Whom To Contact: Director
Management, Loan and Finance
Department of Education
State of Alaska
Pouch F
Juneau, Alaska 99801

AGENCY: DIVISION OF STATE LIBRARIES AND MUSEUMS, DEPARTMENT OF EDUCATION STATE OF ALASKA

Program: Public Library Construction Grants
Under this program, state grants are provided for construction and equipping of community libraries. Communities under 2000 population may apply for 90% funding.

Program: Grants-In Aid For Purchase Of Library Materials
This program provides assistance in the purchasing of library materials, books, periodicals, audio/visual aids, etc. Up to $1,000.00 can be provided annually in 100% State grants.

Whom To Contact: Coordinator, Southcentral Region
Alaska State Library
650 International Airport Road
Anchorage, Alaska 99502

AGENCY: OFFICE OF EDUCATION, DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Program: School Assistance In Federally Affected Areas - Construction
Project grants are provided under this program to provide assistance for construction of minimum school facilities in school districts experiencing rapid increases in school membership, because of federal activities or where re-construction of facilities is necessary because of a natural disaster. Aid amount is based on projected increase in membership resulting from federal activity.

Whom To Contact: William Stormer
Division of School Assistance In Federally Affected Areas
Office of Education
400 Maryland Ave., S. W.
Washington D. C. 20202 (202) 245-8247

Additional general funding for education related facilities such as E.D.A. and H.U.D. (Block Grant) programs, may be found listed in last section of this chapter.

RECREATION AND TOURIST FACILITIES

AGENCY: DIVISION OF PARKS, DEPARTMENT OF NATURAL RESOURCES, STATE OF ALASKA

Program: Outdoor Recreation, Open Space and Historic Properties Development Fund
This State program is designed to assist in the cost to acquire, develop, or extend outdoor recreation sites and facilities and to acquire, preserve, or protect historical sites, buildings, and monuments. Up to one-half of the non-federal share is provided.

Program: Trails and Footpaths
This program is designed to assist in the establishment of public ways for trails and footpaths. The Department of Natural Resources receives an appropriation based on a percentage of federal aid highways program funds.

Whom To Contact: Director, Division of Parks
Department of Natural Resources
619 Warehouse Ave.
Anchorage, Alaska 99501

AGENCY: DIVISION OF TOURISM, DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

Program: Tourist Attraction Development Matching Grant Program
This program provides matching funds for the purpose of developing tourist attractions of historical or contemporary interest. The State will match funds on a one-to-one basis.

Program: Visitor Information Center Matching Grant Program
The State, under this program, will match funds on a one-to-one basis to assist communities which undertake programs to operate local visitor information centers, or construct visitor information facilities.

Program: Convention And Incentive Travel Matching Grant Program
The purpose of this program is to promote convention and incentive travel to the State of Alaska. The program is funded 50% state, 50% local.

Whom To Contact: Director, Division of Tourism
Department of Commerce and Economic Development
Pouch D
Juneau, Alaska 99811

AGENCY: DIVISION OF BUSINESS LOANS, DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT

Program: Historical District Revolving Loan Fund
The State will provide funds to restore and maintain historical structures within the boundaries of a historical district established by the Historical Sites Advisory Committee. A maximum of $100,000 is provided per structure.

Whom To Contact: Director, Division of Business Loans
Department of Commerce and Economic Development
Pouch D
Juneau, Alaska 99811

AGENCY: ARMY CORPS OF ENGINEERS, DEPARTMENT OF ARMY

Program: Small Beach Erosion Control Projects
Under this program, the Corps of Engineers designs and constructs the beach erosion control project. The project must be deemed engineeringly feasible and economically justified. The determination of local cost is based on the public use and ownership of the beach protected, however, the federal participation cannot exceed 70% of project cost.

Whom To Contact: Col. George R. Robertson
U.S. Army Corps of Engineers
Alaska District
P. O. Box 7002
Anchorage, Alaska 99510

AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

Program: Resource Conservation And Development Loans
The objective of this program is to provide loan assistance to local jurisdictions where acceleration of resource conservation, development, and utilization will increase economic opportunities for local people. Eligible agencies are those located in an authorized resource conservation and development area, having a correct financial status. Funds may be used for water oriented recreation facilities, soil and water control and use facilities, shift in land use facilities, water storage facilities, and special purpose equipment.

Whom To Contact: John R. Roderick
P. O. Box 1289
Palmer, Alaska 99645

AGENCY: SOIL CONSERVATION SERVICE, DEPARTMENT OF AGRICULTURE

Program: Watershed Protection And Flood Prevention
This program provides financial and technical assistance in planning and carrying out works of improvement to protect, develop, and utilize the land and water resources in small watersheds. As an example of matching fund requirement, program funds may pay 100% for flood prevention, up to 50% of agricultural water management, public recreation and fish and wildlife purposes; and none of the costs for certain other non-agricultural water management purposes.

Whom To Contact: Weymeth E. Long
Soil Conservation Service
Professional Bldg., Suite 129
2221 E. Northern Lights Blvd.
Anchorage, Alaska 99504 (907) 276-4246

Additional general funding for tourist and recreation facilities such as E.D.A. and H.U.D. (Block Grant) programs, may be found listed in last section of this chapter.

HOUSING PROGRAMS

AGENCY: FARMERS HOME ADMINISTRATION, DEPARTMENT OF AGRICULTURE

Program: Section 502, Rural Housing Loans
This housing program provides guaranteed/insured loans to individuals needing assistance for construction, repair or purchase of housing. The dwelling, financed for families with low or moderate income, must be modest in size, design, and cost.

Program: Section 504, Housing Loans and Grants
Secion 504 provides direct loans and project grants to assist owner-occupants in rural areas who do not qualify for Section 502 loans to repair or improve their dwelling. The removal of sanitary and health hazards is of primary consideration. Maximum assistance is $5,000.

Program: Section 523/524, Site Loans
Loans are made to public and non-profit organizations for land purchase and site development. The housing development of these lots must be affordable by families with incomes within FmHA limits. This program is usually combined with FmHA Section 502.

Program: Section 515, Rental Housing
Loans are made to non-profit, or limited profit organizations to purchase or construct low and moderate income housing for rental purposes.

Whom To Contact: Farmers Home Administration
John R. Roderick
P. O. Box 1289
Palmer, Alaska 99645

AGENCY: DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Program: Mutual Help Home Ownership
Under this program the homeowner agrees to contribute cash, work, land, materials or equipment (or a contribution) toward construction of the home. Monthly payments are made based on income and the homeowner is responsible for all maintenance. The home buyer becomes the owner at the end of the payment period. Natives are eligible.

Program: Guaranteed And Insured Home Loans (FHA)
H.U.D. also provides, through private lenders, direct guarantees and insurance on loans to construct or purchase housing to be occupied by the owner. The program encourages lenders to make loans available to middle income home buyers on down payment and interest terms somewhat better than is available through strictly private sources.

Program: Section 236, Rental
This program may be undertaken by private developers or individuals. The program provides interest subsidies to owners of rental units so that monthly rents can be reduced for eligible families.

Program: Section 8, Housing Assistance Payments Program For Lower Income Families
Housing assistance payments are provided to supplement renter payments so that renters can afford housing within certain standards of housing acceptability. Assisted families are required to contribute not less than 15, nor more than 25, percent of their adjusted family income toward rent.

Whom To Contact: Department of Housing and Urban Development, Region 10
1321 Second Ave.
Seattle, Washington 98101 (206) 442-5415

AGENCY: BUREAU OF INDIAN AFFAIRS

Program: Indian Housing Assistance
This program, combined with H.U.D. and H.E.W. assistance efforts, is aimed at providing housing improvements for eligible Native families. Applicants must meet eligibility requirements of the BIA Housing Improvement Program (HIP), or, under the Department of Housing and Urban Development (HUD), the regulations of a legally established local or regional Native Housing Authority.

Whom To Contact: Bureau of Indian Affairs
Juneau Area Office
Box 3-8000
Juneau, Alaska 99801 586-7171

Or: Department of Housing and Urban Development, Region 10
1321 Second Avenue
Seattle, Washington 98101 (206) 442-5415

AGENCY: ALASKA STATE HOUSING AUTHORITY

Program: Public Housing, Acquisition And Construction
The State will provide assistance to local governments to provide low rent housing through acquiring existing housing from the private market, procurring construction by competitive bidding, or letting contracts to private developers. Annual contributions are made to guarantee debt service and to maintain rents at or below 25% of tenant income.

Whom To Contact: Executive Director
Alaska State Housing Authority
P. O. Box 80
Anchorage, Alaska 99510

AGENCY: ALASKA HOUSING FINANCE CORPORATIONS

Program: Secondary Market Housing Loan Purchase Program

This program offers low interest home mortgages through private lenders around Alaska. Mortgages are purchased from local private lenders (such as banks and mortgage companies) with proceeds from state revenue bonds. Lower interest rates are offered through pooling mortgages from different areas of Alaska, and by lower interest rates generally available to public agencies (since interest on public bonds is not taxable). This program may be restricted in the future if proposed federal legislation is enacted.

Whom To Contact: Alaska Housing Finance Corporation
201 East 3rd Avenue
Anchorage, Alaska 99504 (907) 274-4621

(Or local banks or mortgage companies)

Additional funding for housing rehabilitation, site improvements and related community development activity can be obtained through H.U.D. Community Development Block Grants, described at the end of this chapter.

OTHER COMMUNITY AND ECONOMIC DEVELOPMENT PROGRAMS

The following aid programs fall into a general category dealing with economic development and assistance on a business and community-wide scale. Grants are awarded on the basis of overall community need and may finance specific capital improvements and facilities or assist the small businessman in the operation of key commercial or industrial enterprises.

AGENCY: ECONOMIC DEVELOPMENT ADMINISTRATION, DEPARTMENT OF COMMERCE

E.D.A. administers a variety of general economic assistance programs; grants are awarded on the basis of community economic need. Applicable programs include:

Program: Economic Development-Grants And Loans For Public Works And Development Facilities

Grants are provided for such public facilities as water and sewer systems, access roads to industrial parks or areas, port facilities, public tourism facilities, vocational schools, and site improvements for industrial parks. Local jurisdictions are eligible to apply for assistance under circumstances which warrant an improvement in the economic well being of the community. The basic grant rate can be up to 50% of project cost; re-development areas located within designated economic development districts may, subject to an 80% maximum federal grant limit, be eligible for a 10% bonus on grants for public works (sewer/water) type projects.

Program: Economic Development-Business Development Assistance

The objective of this program is to stimulate, or sustain industrial and commercial viability within designated areas by assisting key businesses through direct or guaranteed/insured loans. The federal participation in a direct, fixed asset loan may not exceed 65% of project fixed asset costs, with the balance taken from the applicant's equity, and commercial lender.

Program: Economic Development-Public Works Impact Projects

Project grants are provided for construction of public facilities to provide immediate jobs to the unemployed and underemployed in the project area. The basic grant rate is 80 to 100 percent.

Program: Grants To States For Supplemental And Basic Funding Of Titles I, II, III, IV and IX Activities

Project grants and direct loans are available for construction of a wide variety of public works and facilities. The State sets priorities for the use of funds in those localities in which economic development is lagging.

Whom To Contact: Economic Development Administration
Western Regional Office
1700 Westlake Ave., Suite 500
Seattle, Washington 98109 (206) 442-0596

AGENCY: DEPARTMENT OF COMMERCE AND ECONOMIC DEVELOPMENT, STATE OF ALASKA

Program: Commercial Fishing Revolving Loan Fund
Resident Alaska fishermen are eligible to apply for loans up to $500,000 at 10% interest, for up to 15 years term, to aid in bottomfish development.

Program: Small Business Revolving Loan Fund
Loans of up to $300,000 are available, to State residents, at 9½% interest for up to 15 years' term. These funds can be used for initial capital expenditures, real estate, equipment, and operating capital.

Whom To Contact: Department of Commerce and Economic Development
Division of Business Loans
Pouch EE
Juneau, Alaska 99801

AGENCY: DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Program: Community Development Block Grants/Small Cities Program
This program, provides assistance in the form of project grants to a wide range of community development activities. Examples of projects include: public works facilities, clearance, housing rehabilitation, relocation payments, urban renewal and economic development activities. There is no matching requirement. Criteria for selecting recipient communities includes: percent of residents under poverty level income, degree of substantial housing, and projected local and regional economic benefits.

Whom To Contact: Merril Ash
Department of Housing and Urban Development, Region 10
1321 Second Avenue
Seattle, Washington 98101

AGENCY: NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

Program: Coastal Energy Impact Program
Local assistance is provided under for aid programs:
Formula Grants - These grants are available to ameliorate the effects of OCS drilling activity upon local recreation and other environmental resources. Grants are provided to states on a 100% basis.

Planning Grants - Project grants are provided for land use planning, public safety, and public facility plans, provided they are related to the social, economic and environmental impacts resulting from new, or expanding energy activity. The federal share of grants does not exceed 80 percent; the remainder coming from State or local sources.

Loans and Guarantees - Direct loans are available to provide financial assistance for public facilities (transportation, utilities, health care, etc.) necessary to support increased populations stemming from new or expanded coastal energy activity. Up to 100 percent federal funding is provided to the State.

Environmental Grants - Assistance, through Project Grants, is available to prevent, reduce, or ameliorate loss of recreational or environmental resources due to the operation of a coastal energy facility. Up to 100 percent federal funding is provided to the State.

Whom to contact: CEIP Coordinator
Division of Local Government Assistance
Alaska Department of Community and Regional Affairs
225 Cordova, Building B
Anchorage, Alaska 99501