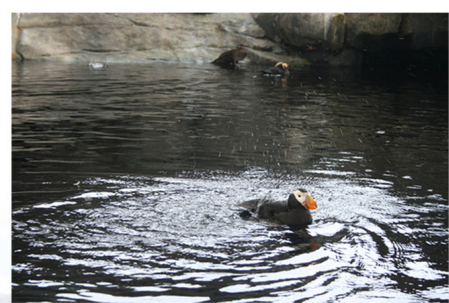


2030

COMPREHENSIVE PLAN UPDATE

VOLUME II

CITY OF SEWARD



Adopted: May 30, 2017

prepared by:
PDC Engineers

Sponsored by: Planning and Zoning Commission
First Public Hearing: May 8, 2017
Second Public Hearing: May 22, 2017
Third Public Hearing: May 30, 2017

**CITY OF SEWARD, ALASKA
RESOLUTION 2017-028**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF SEWARD,
ALASKA, ADOPTING AND RECOMMENDING THE KENAI
PENINSULA BOROUGH APPROVE VOLUMES I AND II OF THE
SEWARD 2030 COMPREHENSIVE PLAN TO INCLUDE THE FUTURE
LAND USE PLAN MAP**

WHEREAS, the 2020 Seward Comprehensive Plan was approved by City Council on August 8, 2005; and

WHEREAS, the Comprehensive Plan is a document the Council uses to manage and facilitate the decisions made in the growth of our community; and

WHEREAS, during the last twelve (12) years the community of Seward has experienced significant growth and change; and

WHEREAS, in January 2015 the City applied for and received Kenai Peninsula grant funding to assist with the update of the 2020 Compressive Plan; and

WHEREAS, through the RFP process the City selected PDC Engineers to gather public input, work with the Planning and Zoning Commission and City staff to complete the update of the 2020 Comprehensive Plan; and

WHEREAS, over the last two years the Planning and Zoning Commission has held thirteen (13) public work sessions and meetings working on the updates; and

WHEREAS, PDC Engineers has completed the update and submitted the final draft of the 2030 Comprehensive Plan including the Future Land Use Map for approval by the City Council and the Kenai Peninsula Borough; and

WHEREAS, all amendments to the City Comprehensive Plan must be approved by Ordinance of the Kenai Peninsula Borough, as per KPB Ordinance 21.01.025, A; and

WHEREAS, having complied with the public notification process on April 18, 2017 the Seward Planning and Zoning Commission held the required public hearing and approved Resolution 2017-06, recommending the City Council adopt and recommend the Kenai Peninsula Borough approve volumes I and II of the Seward 2030 Comprehensive Plan to include the Future Land Use Plan Map.

**CITY OF SEWARD, ALASKA
RESOLUTION 2017-028**

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEWARD, ALASKA that:


Section 1. The Seward City Council hereby approves the 2030 Comprehensive Plan, to include the Future Land Use Plan Map.

Section 2. The Council further recommends the Kenai Peninsula Borough approve the 2030 Seward Comprehensive Plan.

Section 3. This resolution shall take effect immediately upon adoption.

PASSED AND APPROVED by the City Council of the City of Seward, Alaska, this 30th day of May, 2017.

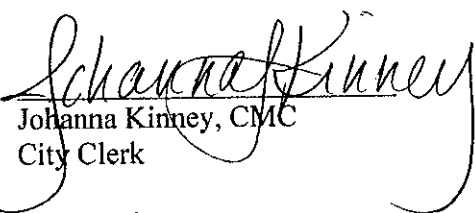
THE CITY OF SEWARD, ALASKA



Jean Bardarson, Mayor

AYES: Keil, Altermatt, McClure, Bardarson
NOES: None
ABSENT: Slater, Casagrande, Squires
ABSTAIN: None

ATTEST:



Johanna Kinney, CMC
City Clerk

(City Seal)



PREFACE

This document was prepared for the City of Seward over the period 2015 - 2017. Development of the 2030 Seward Comprehensive Plan was based on continued involvement with the City of Seward as well as research and review of the existing documents by the consultants. The elements of the 2030 Plan incorporate information gathered during public meetings, Planning and Zoning Commission meetings, and information from numerous background documents.

The 2030 Plan was presented to the City of Seward for public review in 2017.

City of Seward

P.O. Box 167
Seward Alaska 99664

City Council

Jean Bardarson	Mayor
Marianna Keil	Vice Mayor
Ristine Casagranda	Council Member
Sue McClure	Council Member
David Squires	Council Member
Eric Slater	Council Member
Deborah Altermatt	Council Member

Planning and Zoning Commission

Cindy Ecklund	Chair
Martha Fleming	Vice Chair
Gary Seese	Commission Member
Margaret Anderson	Commission Member
Tom Swann	Commission Member
Craig Ambrosiani	Commission Member
David Carlton Jr.	Commission Member

City Administration

Jim Hunt	City Manager
Donna Glenz	Planner
Dwayne Atwood	Planning Technician

Citizens of Seward

The involvement of many Seward residents in preparation of the 2030 Seward Comprehensive Plan is gratefully acknowledged.

Kenai Peninsula Borough

144 North Binkley
Soldotna, Alaska 99669

Consultant

PDC Engineers
2700 Gambell Street, Ste. 500
Anchorage, AK 99503
907.743.3200



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Background

This section of the Comprehensive Plan presents background information about the city that is needed to identify trends, understand patterns, and set the stage for Seward's future. It is a snapshot of current conditions that includes historical data and forecasts to illustrate changes over time, as well as possible future conditions. Understanding these items is important to ensure that the comprehensive plan is a realistic and responsive document.

At the end of each section is a summary of planning issues and trends. These summaries are a result of research, stakeholder interviews, and public outreach. The issues and trends are used to help inform and determine the long-term goals and objectives of the community.



1 History of Seward



Seward, founded in 1903 as the ocean terminus of a fledgling railway to Interior Alaska, was incorporated as a city in 1912. Congress purchased the private line in 1915 and completed the rail linkages that now constitute the Alaska Railroad. The Anchorage rail link was completed by the year 1918; the rail to Fairbanks was completed by 1923. The ice-free port facilitated export of the state's agricultural, mineral, and timber resources. Seward's population gradually rose to about 1,000 people until World War II, when it grew rapidly as a military post. By the early 1950s, when the Seward Highway was completed, the town had reached a population of 2,100. The number of residents fell substantially after the 1964 Great Alaska Earthquake, but grew again in the 1970s in response to the construction of the Alyeska Trans-Alaska Oil Pipeline and diversification of the economy.

Seward's small-town scale and historic character has been retained through the years. It has kept its original town site as a vital residential and commercial center. The town site, which was established in 1903 by the Bal-laine brothers while they were working for the Railway, features well-kept older homes that line paved streets, and downtown stores concentrated within easy walking distance of each other. Larger commercial and industrial development is isolated from residential areas. The city shows less of the growing pains of haphazard development found elsewhere in Alaska.



2 Natural Setting



Seward is situated at the northern end of Resurrection Bay on the southeast coast of the Kenai Peninsula, 126 highway miles south of Anchorage. The depth and width of Resurrection Bay create moderate tides with slight variations in extent. There are no overhead or navigational obstructions, and the bay's waters and shores are ice-free year round. Fair winds, inconsequential tide ranges, weak currents, and a north-south orientation make for relatively calm water in the bay.

Seward is located at 60° 07' N Latitude, 149° 26' W Longitude (Sec. 10, T001S, R001W, Seward Meridian). Its maritime climate zone with cool summers and relatively warm winters is due to the moderating influence of the coastal currents flowing through the nearby Gulf of Alaska.

Average winter temperatures range from 17° to 38° Fahrenheit (F), and the summer averages from 49° to 63° F. Annual precipitation averages 66 inches of rain and 80 inches of snowfall.

Resurrection Bay, framed by mountains covered by snow in the winter and wildflowers below remnants of glaciers in the summer, gives the town a spectacular setting. Mt. Marathon provides the western backdrop; its westernmost peak reaches 4,866 feet, while the nearer peak is 3,022 feet. A glacial fjord itself, Resurrection Bay serves as the gateway to Kenai Fjords National Park. Other entities that preserve and manage the natural setting of the surrounding area include the Chugach National Forest of 890,000 acres, the Alaska Maritime National Wildlife Refuge, and Caines Head State Park.



3 Geological Setting



The glacial fjord of Resurrection Bay, approximately 18 miles long and 2 to 5 miles wide, extends southward from the mouth of the Resurrection River. The sides and bottom of the bay are generally quite steep, with near shore depths increasing quickly to a maximum depth of nearly 1,000 ft. The depth of the fjord in the vicinity of Seward is approximately 500 ft.

Most of the downtown portion of the City of Seward is built on the alluvial fan of Lowell Creek, which extends into the northwest corner of Resurrection Bay. This fan is approximately 1.25 miles long and 0.5 miles wide. Its maximum elevation of 130 feet is found at the mouth of the Lowell Creek canyon. Drilling performed after the 1964 earthquake suggests that Lowell Creek deposits average about 100 feet thick, with considerably thicker segments exceeding 300 feet found near the Seward end of the tongue.

Although no major fault lines have been identified in the Seward area, the topography of the region suggests the valley system extending north to Kenai Lake and south to Resurrection Bay is partially fault controlled. Surveys made after the 1964 earthquake identified numerous small shear zones and small faults in the Seward area.



4 Demographics

4.1 Population

The population of Seward has fluctuated from decade to decade, but has seen an overall pattern of growth over the last 100 years. Seward saw its greatest periods of growth in the 1940's and 1980's, corresponding with the post-world war II boom and opening of the Spring Creek Correctional Center in 1988 (capacity, 412 inmates). The population has remained stable in recent years. It was measured at 2,693 people in the 2010 Census, and was estimated at 2,740 people in 2015.

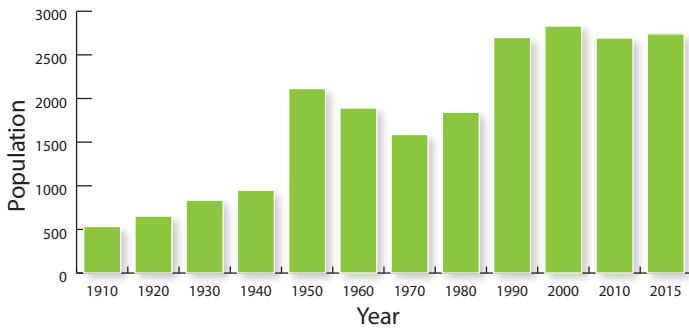


Figure 1 - Seward Population Growth, 1910-2015

Source: Alaska Department of Labor and Workforce Development, Research and Analysis

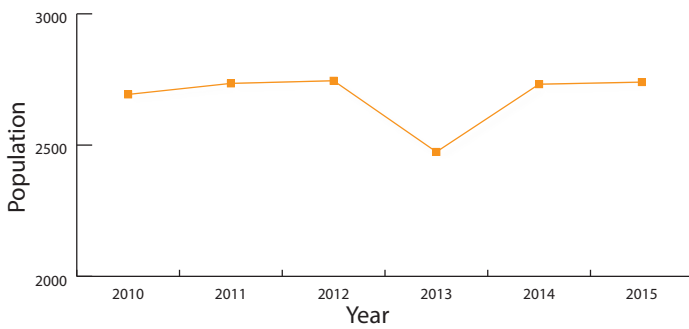


Figure 2 - Seward Population, 2010-2015

Source: Alaska Department of Labor and Workforce Development, Research and Analysis

The sections below provide further information on the composition of Seward's population over the years.

4.1.1 Race and Ethnicity

The city of Seward has a racial composition similar to Alaska's statewide racial composition. A majority of the population (69%) is white, with American Indian/Alaska Native as the second largest racial group (17%), and 8% of the population comprised of two or more races (see Figure 3).

Diversity in the City of Seward increased markedly between 1990 and 2010. In 1990, racial minorities comprised 21% of Seward's population. By 2010, that figure rose to 32% (See Figure 4). It is important to note, however, that non-white persons are over represented in the institutionalized population. Excluding institutionalized persons, the non-white population is 24% of the total.

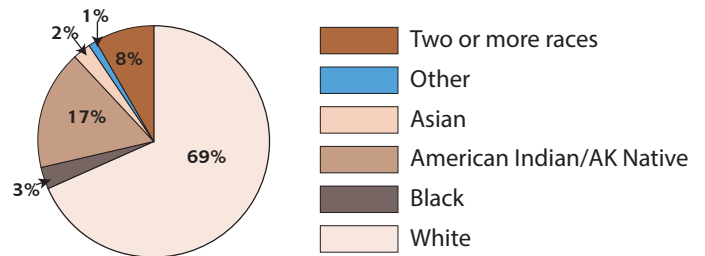


Figure 3 - Seward Racial Composition, 2010

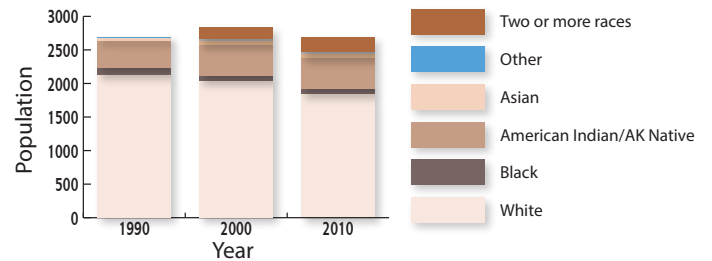


Figure 4 - Changes in Seward's diversity, 1990-2010



4.1.2 Age and Gender Distribution

Over the 20-year period from 1990 to 2010, the median age of Seward's population increased steadily from 32 to 38 (see Figure 5).

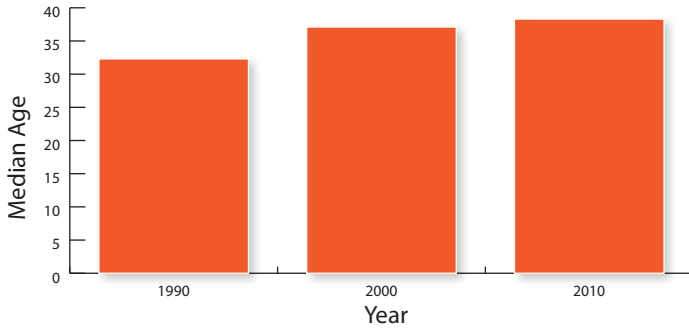


Figure 5 - Seward Median Age, 1990-2010

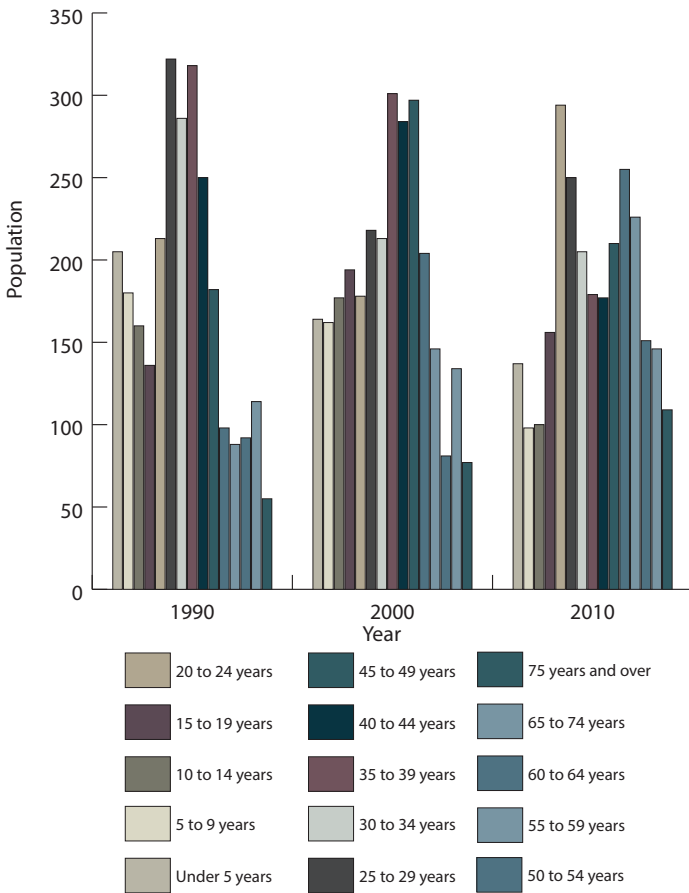


Figure 6 - Age Breakdown of Seward Residents

Although the median age for Seward continues to rise, there is currently a larger portion of the population between the ages of 20 and 29 than at any point in the past 20 years.

This is an indication of changing age demographics in the institutionalized population rather than a change in the general noninstitutionalized population.

Sixty-two percent of Seward's population is male, which is higher than the statewide average of fifty-two percent. The median age of males in Seward is 36.6, and the median age of females in Seward is 41.3 (see Figure 7). Both of these figures are skewed by the all-male Spring Creek Correctional Center. Excluding institutionalized persons, male population is 52.5% of the total noninstitutionalized population.

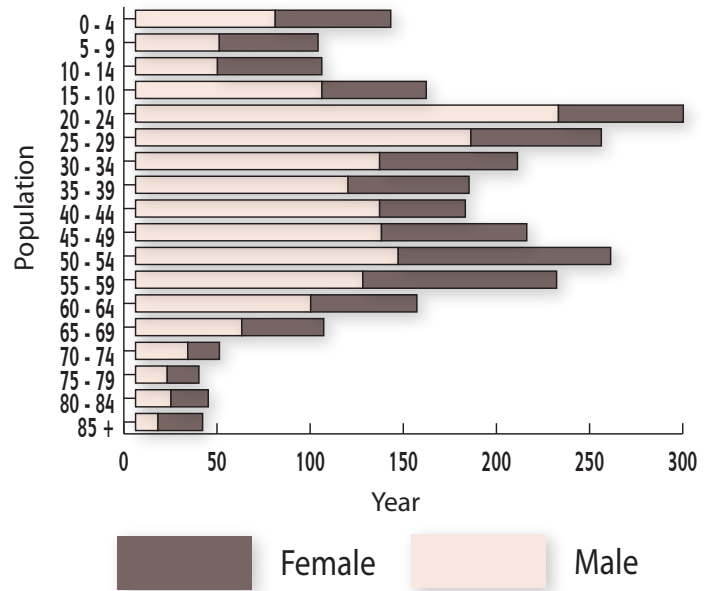
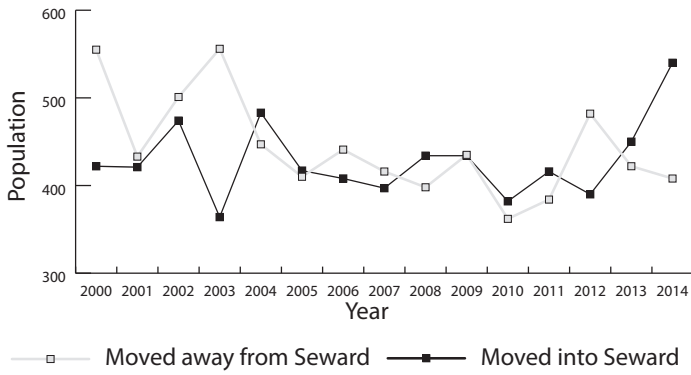


Figure 7 - Seward population by age and gender, 2010

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Migration Patterns

Over the past 15 years, in-migration and out-migration patterns have largely kept pace with each other. There has been an overall slight decrease in people moving away from Seward, and a slight increase in people moving in.

Figure 8 illustrates the annual pattern of in-migration and out-migration from the city of Seward from 2000 – 2014. Please note that in-migration figures include births, and out-migration figures include deaths.



4.2 Summary of Planning Issues and Trends

- * Population decreased slightly between 2000 and 2010, but seems to be on an upward trend again.
- * Population has grown faster outside city limits.
- * The Seward population is aging – the median age has increased from 32 to 38 since 1990.

Figure 8 - Migration patterns, 2000-2014

Source: Alaska Department of Labor and Workforce

The population has continued to grow faster outside of Seward’s city limits. Total population in the Census area surrounding Seward increased by 2% between 2000 and 2010, while the population within city limits declined by 5% over this same period.

4.1.3 Population Projections

Projections for the population within the City of Seward are provided in Table 1 and below. These estimates represent a steady growth rate of 0.3% per year. The Kenai Peninsula and the entire state of Alaska are projected to grow at about 0.7% per year over the same period (Department of Labor and Workforce Development, 5/11/2016). Please note that these figures only represent the population within Seward’s city limits. Any changes to city services and infrastructure should consider the total population of the areas adjacent to city limits.

Table 1 - Seward Population Projections

2015	2,740
2025	2,834*
2035	2,928*

Source: Alaska Department of Labor and Workforce Development

***Numbers extrapolated using least squares regression**



5 Economy

For a community of its size, Seward has a diverse local economy. This is due in part to its historic role in the growth of the state of Alaska; its location on a scenic, deep-water, ice-free bay; and the actions of its leaders and citizens. In the past, it long served as the southern terminus of the Alaska Railroad connecting passengers and cargo coming by sea with the rest of Alaska. More recently, it has served as a port for various cruise line itineraries, using highway and rail connections. Marketing the local scenery and proximity to Prince William Sound and to national parks, forests, and wildlife refuges has contributed to a growing tourism sector.

Salmon, halibut and other fishery resources in nearby waters support both commercial and charter fishing operations. Community leaders have actively lobbied for economic development, resulting in the development of thriving institutions such as the Alaska Vocational Technical Center (AVTEC), the Alaska SeaLife Center (ASLC), the Institute of Marine Science (IMS) of the University of Alaska Fairbanks, and the Spring Creek Correctional Center (SCCC). Seward has also used municipal lands and resources to support the development of the Seward Marine Industrial Center (SMIC), and construction of the Providence Seward Medical Center.

5.1 Employment

In 2014, 983 (61%) of Seward’s working-age residents were employed, a majority of whom were employed year round (67%). Most workers were employed in the private sector (78%), 11% were employed by State government, and another 11% were employed by local government.

Of those employed in 2014, 65.4% were private wage and salary workers, 25% were on the payroll of federal, state, or local government, and 9% were self-employed (U.S. Census 2016). Employment in the city of Seward generated \$35,913,820 in wages in 2014 (Alaska Department of Labor and Workforce Development 2016). Figure 9 shows the changes in employment in Seward by industry between 2001 and 2014. Total employment during this period decreased from 1,135 jobs in 2001 to 983 jobs in 2014.

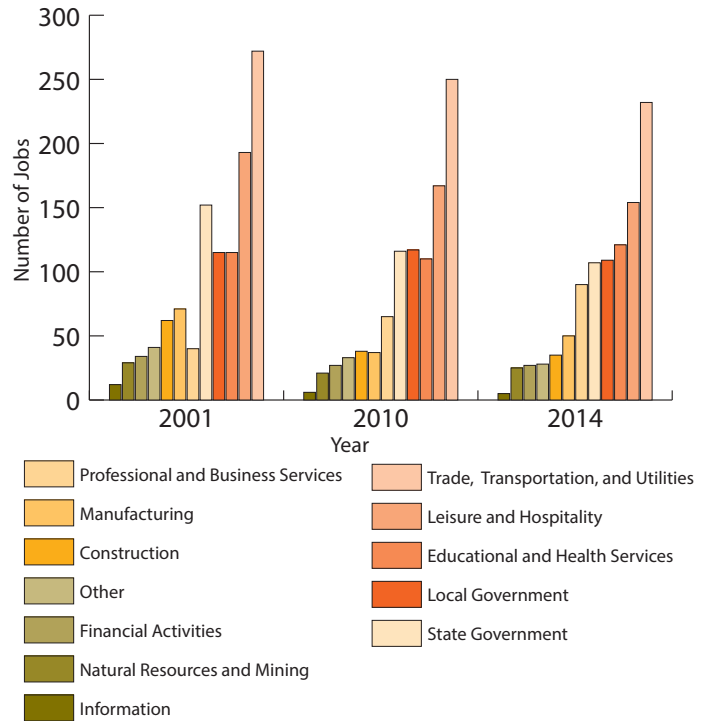


Figure 9 - Employment Trends by Industry

Table 2 compares employment by industry gains and losses between 2000 and 2014. Overall, employment has decreased in construction, State government, manufacturing, information, and leisure and hospitality. The greatest growth in employment over this period was seen in professional and businesses services. Educational and health services, and local government, also saw a slight increase in employment over this period.

Table 2 - Seward Employment by Industry, 2000 to 2014 Gains and (Losses)

Industry	Gains and (Losses)
Information	(1%)
Natural Resources and Mining	0
Financial Activities	0
Construction	(2%)
Manufacturing	(1%)



Industry	Gains and (Losses)
Professional and Business Services	6%
State Government	(2%)
Local Government	1%
Educational and Health Services	2%
Leisure and Hospitality	(1%)
Trade Transportation and Utilities	0

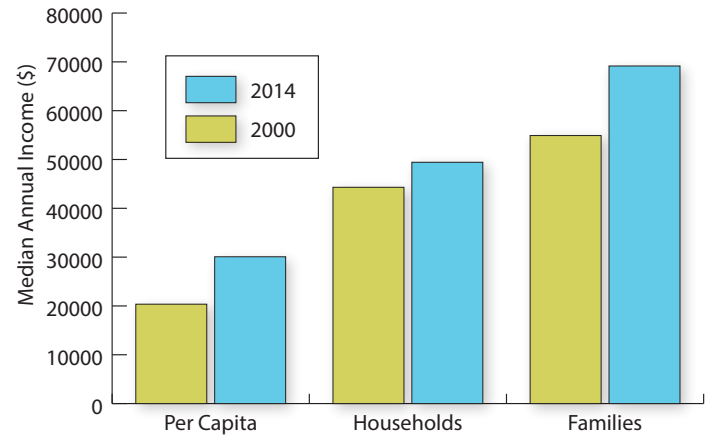


Figure 10 - Measurements of Income in Seward

The U.S. Census Bureau estimated the 5-year average unemployment rate (2010-2014) for Seward to be 8.2%. The Alaska Department of Labor and Workforce Development estimated that the March 2016 unemployment rate for the Kenai Peninsula Borough was 9.7%. They estimated the average unemployment rate for the entire state of Alaska that month to be 6.6%.

5.2 Income

Measurements of income in Seward show increases between 2000 and 2014. Per capita income in 2014 was \$30,076; the median household income was \$49,432; and median family income was \$69,158. Household income includes the income of the householder and all other individuals 15 and older in the household, whether they are related to the householder or not. Family income is the incomes of all members 15 years and older related to the household, and are summed and treated as a single amount (US Census Bureau). The largest percent of household and family income remained within the \$50,000 to \$74,999 income bracket over this period (19% and 20% respectively). An estimated 5.5% of the population was listed as below the poverty level in 2014.

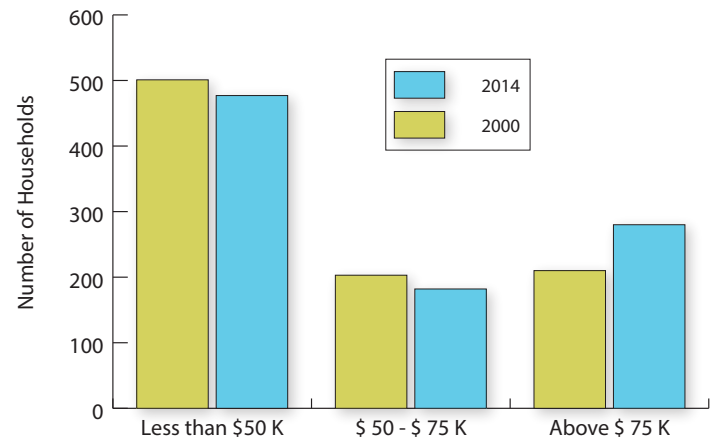


Figure 11 - Household Income in Seward

5.2.1 Business

The predominant industries in Seward by total sales are Construction, Guiding (water), Retail, and Wholesale Trade.

Table 3 summarizes the gross business sales in Seward, according to industry.

**Table 3 - City of Seward Gross Business Sales, in thousands, 2009-2013**

Business Type	2013	2012	2011	2010	2009
Admin, Waste Mgmt	\$2,514	\$2,077	\$1,772	\$1,575	\$1,306
Ag, Forestry, Fishing, Hunting	\$27	\$10	*	*	\$0
Arts & Entertainment	\$58	\$252	\$616	\$534	\$93
Construction Contracting	\$26,040	\$29,769	\$23,956	\$22,290	\$33,687
Educational Svs	\$39	\$56	\$57	\$40	\$17
Finance & Insurance	\$47	\$144	\$446	\$118	\$86
Guiding Land	\$604	\$151	\$149	\$195	\$80
Guiding Water	\$23,936	\$20,968	\$21,080	\$19,769	\$17,258
Health Care, Social Asst	\$1,310	\$1,165	\$1,225	\$1,495	\$1,694
Hotel/Motel/B&B	\$13,892	\$12,604	\$11,601	\$10,207	\$9,401
Information	\$3,705	\$3,644	\$3,845	\$3,915	\$3,967
Manufacturing	\$16,941	\$20,175	\$16,136	\$13,979	\$14,522
Mining/Quarrying	\$0	\$0	\$0	\$0	\$72
Prof, Scientific & Technical Svs	\$8,624	\$10,257	\$11,314	\$9,942	\$7,062
Public Admin	\$7,399	\$7,366	\$7,076	\$6,793	\$6,987
Remediation Svs	\$0	\$0	\$0	\$0	\$0
Rental Commercial Prop	\$1,845	\$1,973	\$1,516	\$1,739	\$1,705
Rental Non-Residential Prop	\$426	\$348	\$262	\$298	\$352
Rental Self-storage & Miniwarehouses	*	*	*	*	*
Rental Personal Prop	\$133	\$160	\$149	\$140	\$125
Rental Residential Prop	\$7,865	\$5,257	\$5,397	\$4,369	\$5,506
Restaurant/Bar	\$13,192	\$12,005	\$11,132	\$10,052	\$9,197
Retail Trade	\$54,276	\$52,178	\$51,417	\$49,972	\$46,894
Services	\$14,361	\$17,973	\$10,434	\$1,886	\$2,420
Telecommunications	\$396	\$480	\$493	\$610	\$405



Business Type	2013	2012	2011	2010	2009
Transportation, Warehousing	\$9,722	\$7,127	\$4,631	\$4,277	\$4,592
Utilities	*	*	*	*	*
Wholesale Trade	\$31,627	\$31,537	\$26,292	\$22,343	\$18,426
GRAND TOTAL	\$238,980	\$237,677	\$210,994	\$186,539	\$185,854
Annual % change	0.5%	12.6%	13.1%	0.4%	-11.6%

*Source: Kenai Peninsula Borough Finance Dept *confidential*

The trend in gross business sales from 2009 to 2013 shows overall growth. Some industries have seen greater growth, such as wholesale trade and services, while some industries felt the impact of the great recession more than others. One industry, Construction Contracting, has not recovered to pre-recession levels.

5.3 Tourism

Tourism is a major economic engine for the City of Seward. The months of June, July, and August are the primary months for tourism, with approximately 80-90% of all visitors arriving during that time. Winter tourism has seen an increase, with events such as the Polar Bear Plunge.

Cruise ships bring a substantial number of visitors to Seward. Over 90,000 cruise ship passengers passed through the community in 2016. However, there is insufficient data on the economic impact of tourists in Seward.

Table 4 - Seward Chamber of Commerce visitor counts, 2014-2015

	2014	2015
January	26	33
February	63	74
March	103	461
April	185	205
May	772	1,338
June	3,581	4,320
July	5,260	5,188
August	5,134	3,207
September	200	1,014
October	34	126
November	3	45
December	2	15

Source: Seward Chamber of Commerce

5.4 Factors Affecting Seward’s Economy

5.4.1 National Economic Trends

Anything that impacts tourism will have a significant impact on Seward’s economy. For example, the “great recession” in the contiguous United States impacted tourism traffic in Seward. The data in Table 3 shows that



services in the tourism industry saw reduced revenue between 2008 and 2009, and took some time to climb back up to 2009 levels.

5.4.2 State Spending

Reduced state budgets can mean less money available to communities such as Seward. Grants and other funding programs for local government are often cut or eliminated when state revenue declines. This can mean less money available for staff positions or capital improvement projects that would employ locals. Fiscal year 2017 state budget cuts eliminated nearly \$500,000 for the City of Seward (approximately 5% of the City’s annual budget).

5.4.3 Transportation Infrastructure

Closures of the Seward Highway due to avalanche, flooding, or other natural events could impact the local economy. As the only overland route between Seward and Anchorage, the Seward Highway is vital to the flow of goods into and out of Seward.

5.5 Summary of Planning Issues and Trends

- * The Service sector has grown considerably since 2010
- * Most industries have rebounded to pre-recession levels
- * The local economy has diversified since the last comprehensive plan update
- * State budget cuts have reduced local government funding



6 Land Use

The City of Seward completed the Municipal Lands Inventory and Management Plan in December 2014. That document addresses the City's land asset holdings and needs. It provides an action guide specifically for the management of city-owned lands. The primary recommendations of the plan are:

- * Budget time and attention to applying for the remaining municipal entitlements.
- * Budget time and attention to applying for the remainder of state tidelands and replatting as needed.
- * Establish a land bank where funds acquired from the sale of surplus property accrue to a special account for acquisition of other needed lands.
- * Reaffirm the comprehensive plan by continuing to lease commercial and industrial lands rather than sell.
- * Consider using different rental percentage rates to reflect supply and demand on various city land areas (i.e. the Seward Marine Industrial Center where land is available and development is encouraged, and the Boat Harbor where land is in short supply and high demand).
- * Vacate otherwise undevelopable Rights of Way to enlarge and/or consolidate adjacent lands. (Note: This is generally accomplished when adjacent lands are replatted)
- * Plan rights of way acquisitions to:
 - ◇ Develop Hemlock Avenue and Olympia Road to the Seward Highway.
 - ◇ Extend Chamberlain Road above the horse pasture to Phoenix Road to provide an alternate parallel route to relieve pressure on the Seward Hwy.
 - ◇ Extend Benson Drive from Swetmann Drive to Phoenix Road to provide a safer alternate egress from Gateway Subdivision. (Note: Two private parcels stand between the end of Benson Drive ROW and Phoenix Road)
- * Modify and enforce the City code to discourage the use of rights of way for the storage of personal property such as trailers, inoperable /unlicensed motor vehicles, and commercial equipment.
- * Continue to keep an accurate and complete inventory data base of all easements.

- * Work to obtain rights of way within the Clearview Subdivision.

6.1 Land Ownership

Seward's developed area is primarily composed of privately owned property. Much of the public land within the city limits has been developed and is owned by the City of Seward, Kenai Peninsula Borough, State of Alaska, and Alaska Railroad Corporation (ARRC). The city and ARRC also own substantial undeveloped lands within city limits.

Undeveloped city land is concentrated in the southwest part of town and along the northeastern side of Resurrection Bay. Large blocks of state land are located along the Resurrection River and the western boundary of city land. The ARRC owns blocks in the harbor and industrial parts of town. These are strategic locations, which can influence the type of development that occurs in Seward.

The borough owns lands developed for the schools and the waste transfer facility while the state has parcels developed throughout town for AVTEC, the airport, and road maintenance facilities.

6.2 Land Use Patterns

6.2.1 Residential

Residential uses are zoned into single-family, two-family, multi-family, and rural residential. In some areas of Seward these uses are concentrated, such as along First and Second Avenues and in various subdivisions like Clear View, Gateway, and Forest Acres in the northwest portion of town. In other areas, they are mixed in with commercial development such as along portions of Fourth, Fifth, Sixth Avenues, and Ballaine Boulevard (office/residential and urban residential zones).

Multi-family residential use is scattered throughout parts of downtown and along First and Second Avenues. Large lot residences not hooked up to city water and sewer occur in Forest Acres, and in scattered areas on the east side of Resurrection Bay.



As indicated previously, there has been residential growth north of city limits adjacent to the Seward Highway and Nash Road and in subdivisions. These residences use on-site wells and septic systems.

6.2.2 Commercial

General commercial activity in Seward is concentrated into three areas. The downtown business district, which extends along Third, Fourth, and Fifth Avenues between Jefferson Avenue and the bay, is the largest area of activity. The second general commercial area includes fishing, marine recreational and tourism-oriented businesses located in the small boat harbor and its immediate vicinity. The third area extends along the Seward Highway from Port Avenue to the northern city limits. As with residential growth, commercial growth north of city limits relies on highway access.

Availability of land not subject to City sales and property taxes may encourage continued development outside the city, although limited or lack of services such as sewer, water, fire protection, and emergency service could be a deterrent.

6.2.3 Marine Industrial

Marine industrial use is associated with fish processing, boat repair and storage, marine fuel storage, transshipment, commodity and passenger transfer, and staging for marine research vessels and projects. These uses occur in four general areas: on the south edge of downtown Seward, partway out to Lowell Point; in the vicinity of the boat harbor; in the area at the head of Resurrection Bay between the boat harbor and the mouth of the Resurrection River; and at SMIC. There is currently additional land available for this type of use at SMIC. Additional railroad-owned lands may also be available.

6.2.4 Upland Industrial

Upland industrial uses are located adjacent to marine industrial uses, and generally have some relationship to marine access. The same areas described in marine industrial apply to upland industrial use.

6.2.5 Public/Institutional

Seward has a significant amount of land devoted to public and institutional use. This includes facilities owned, leased, or operated by the City of Seward; state facilities such as AVTEC, SCCC, the airport, and road maintenance facilities; the Institute of Marine Science; the ASLC; Kenai Fjords National Park Service Visitor Center, and US Forest Service Seward District Ranger Station. Most of these facilities are scattered throughout the city.

Public and institutional uses cluster on the southern part of downtown along or up from the waterfront, in the business district along Fourth and Fifth Avenues, in midtown blocks along First, Second, Third, and Fourth Avenues, in the boat harbor on the eastern side of Fourth Avenue, in the industrial area bounded by the highway and Port Avenue, and near SMIC.

In 2014, the city updated the Municipal Lands Management Plan.

6.2.6 Resource Management

The City of Seward and the State of Alaska own a large amount of undeveloped land and tidelands within city limits. These lands are concentrated on the east side of Resurrection Bay, along the Resurrection River, and the steep slopes on the western city limits. Much of this land is zoned under Resource Management, which allows a wide variety of uses. It may be more appropriate to use the district as a holding zone that requires rezoning before development or sale.

6.2.7 Open Space/Recreation

A certain amount of land in Seward functions as open space and recreational use land, including much of the area zoned as Resource Management. Waterfront Park, a shore side park with developed campsites for both RVs and tents, stretches from the south of the boat harbor to the ASLC on the west side of Resurrection Bay. There are also small municipal parks at various locations.



6.3 Zoning and Subdivision Ordinances

6.3.1 Zoning Districts

Table 5 presents the existing zoning districts. The number and specific intent of zoning districts need to be reviewed and revised. The current zones do not reflect existing land uses in many areas, leading to requests for rezoning, conditional uses, and variances before the Planning and Zoning Commission when owners wish to improve their property. As a result, some districts have a broad range of uses.

Table 5 - Zoning Districts

Zoning	Intent
Rural Residential	Provide stable, quiet, low-density detached single-family residential development.
Single-family Residential	Provide stable and quiet, low to medium density detached single-family residential development.
Two-family residential	Provide medium density traditional housing area with a mix of single and two-family units.
Multi-family Residential	Provide opportunities for a higher density residential setting with a mix of housing units, which are predominantly multi-family housing units close to concentrations of public services, employment, and/or recreation.
Urban Residential	Allow an area of higher density mixed residential uses from detached single-family housing to multi-family apartments in conjunction with compatible low impact professional office uses in the surrounding downtown business district.
Office/Residential	Provide for a medium density residential, commercial and office development designed to act as a transition zone between the high density central business district and surrounding medium-high density residential districts.

Zoning	Intent
Harbor Commercial	Provide for water-dependent or water-related uses with particular emphasis on transportation, tourist, recreational, commercial or industrial enterprises that derive major economic or social benefit from a harbor location.
Auto Commercial	Provide areas to accommodate highway-oriented commercial activities such as offices, certain institutional uses, and limited personal services and retail uses requiring substantial outdoor activity, traffic and parking.
Institutional District	Public and private educational, administrative, government and health care uses, including public land reserved for future public development. The development standards are high to assure that the activities provide visual amenity to the surrounding area.
Parks District	Designate park, recreation and commemorative property owned by the city, state or federal governments for recreation and other compatible public purposes.
Resource Management	Lands that are generally undeveloped and cannot be precisely zoned due to inadequate information on the extension of public services and utilities; the suitability of the land to support commercial, residential, industrial or public uses; and other possible environmental consideration.
Industrial District	Established as a district in which the principal use of land is business, manufacturing, processing, fabricating, repair, assembly, storage, wholesaling and distributing operations; which may create some nuisance and are neither properly associated nor compatible with residential land uses.



6.3.2 Subdivision Ordinance

Responsibility for platting is shared by the City of Seward and the Kenai Peninsula Borough; each has a subdivision ordinance. The party subdividing a parcel of land within city limits must conform to the city ordinance and requirements. Preliminary plats are first submitted to the Seward Planning and Zoning Commission. Once approved, the city prepares and submits written comments with the plat to the Borough Planning Department. Final plats submitted to the Borough Planning Commission that deviate from the preliminary plat, in a manner not approved by the city, are sent back to the city for review.

6.3.3 Road Standards

The City of Seward currently has no adopted road standards, which becomes an issue when land is subdivided. The developer builds roads within a subdivision, and those roads are turned over to the city for maintenance. Roads that are not built to proper standards can create safety and maintenance problems. In some cases, the city may elect not to take responsibility for road maintenance, which leaves that responsibility to homeowners. The city should evaluate and adopt road construction standards as part of the subdivision ordinances.

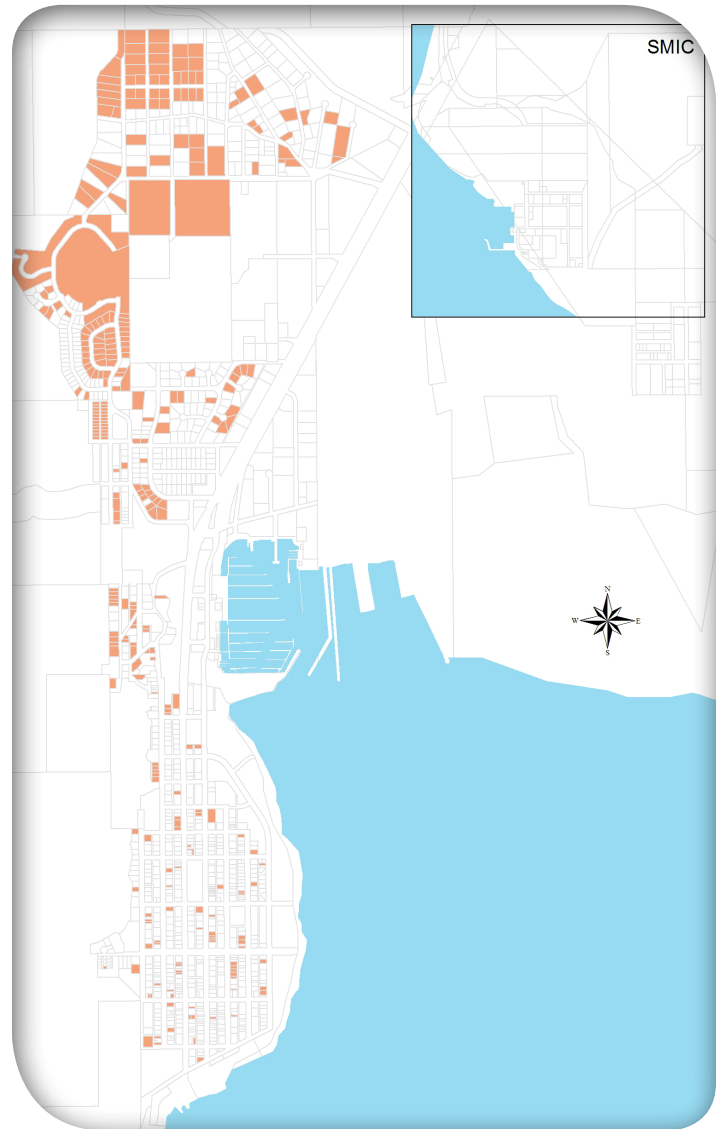
6.3.4 Infill Development

There is a need to concentrate and enhance existing development in conformance with the Land Use Plan. There is also a need to limit unguided expansion of land uses throughout the community.

6.3.5 Vacant Residential Land

Vacant, developable, privately-owned residential land in the City of Seward is limited to about 120 acres. Seventy-three acres are in parcels less than 5 acres in area. In total, there are over 301 vacant, developable residential parcels in the city. Together, these parcels equal over \$11.5 million in taxable land value.

Figure 12 - Map with vacant private residential parcels valued over \$10,000 per acre.





7 Housing

Table 6 and Table 7 present Seward housing characteristics for the years 2000 and 2010. Over this period, the total number of housing units increased by 6%. The portion of housing units that were vacant increased 4%. The portion of single detached housing units increased by 11%. The number of renter occupied units remained roughly equal to the number of owner occupied housing units over this entire period. Median rental rates went up by approximately 5%. The largest change during this period was in housing values, which increased significantly. The number of houses in the \$200,000 and over range increased from roughly 50 to 250 over this period. Between 2000 and 2010, the number of homes with a reported value of under \$100,000 decreased by half, while median home values increased from \$138,400 to \$191,900.

Table 6 - Seward Housing Characteristics for the Year 2000

2000 - Occupancy		Housing Value	
Occupied Housing Units	917	Less than \$50,000	8
Owner Occupied	461	\$50,000 to \$99,999	90
Renter-occupied	456	\$100,000 to \$149,999	137
Vacant housing units	141	\$150,000 to \$199,999	87
UNITS IN STRUCTURE		\$200,000 to \$299,999	38
1 Unit Detached	585	\$300,000 or more	13
1 Unit Attached	30	RENTAL RATES	
2 - 4 Units	165	Less than \$200	32
5 - 9 Units	123	\$200 to \$299	47
10 or more Units	142	\$300 to \$499	87
Mobile Home, Trailer	5	\$500 to \$749	113
HOUSEHOLD BY TYPE		\$750 to \$999	83
Families	556	\$1,000 to \$1,499	50

2000 - Occupancy		Housing Value	
Married Couples	409	\$1,500 or more	5
Male Householder			
Female Householder	111		
Non-Family	361		
Persons per Household	2.4		
Persons Living in Group Quarters	628		

Table 7 - Seward Housing Characteristics for the Year 2010

2010 - Occupancy		Housing Value	
Occupied Housing Units	928	Less than \$50,000	0
Owner Occupied	459	\$50,000 to \$99,999	44
Renter-occupied	469	\$100,000 to \$149,999	149
Vacant housing units	196	\$150,000 to \$199,999	147
UNITS IN STRUCTURE		\$200,000 to \$299,999	38
1 Unit Detached	873	\$300,000 or more	81
1 Unit Attached	30	RENTAL RATES	
2 - 4 Units	128	Less than \$200	0
5 - 9 Units	111	\$200 to \$299	0
10 or more Units	166	\$300 to \$499	92
Mobile Home, Trailer	0	\$500 to \$749	138



2010 - Occupancy		Housing Value	
HOUSEHOLD BY TYPE		\$750 to \$999	83
Families	474	\$1,000 to \$1,499	91
Married Couples	364	\$1,500 or more	0
Male Householder	32		
Female Householder	78		
Non-Family	454		
Persons per Household	2.14		
Persons Living in Group Quarters	709		

7.1 Summary of Planning Issues and Trends

- * Home values increased significantly between the years 2000 and 2010.
- * The portion of single unit detached housing increased markedly between the years 2000 and 2010. The number of structures with 2 or more units fell from 41% to 31% of the total housing stock.
- * The rate of housing developed outside city limits continues to outpace development within Seward. This trend could have long term implications, such as increased cost of services, the development of natural amenities, and a change in the “character” of Seward. The city can continue to explore incentives to develop reasonably priced housing within Seward, such as zoning changes or tax increment financing.

It is also important to point out the change in rental rates between the years 2000 and 2010. In 2010 there are no rentals available below \$300 per month, and the distribution of rental rates has shifted significantly higher.

What this information does not show is the number or rate of housing units developed outside the city limits, but still connected to the services and opportunities provided by Seward. Population and housing continue to grow at a faster rate outside of Seward’s city limits. Between 2000 and 2010, Seward’s total housing stock grew by 6%. Over that same period, the total housing stock in the Census area surrounding Seward grew by 16% (see Figure 12).

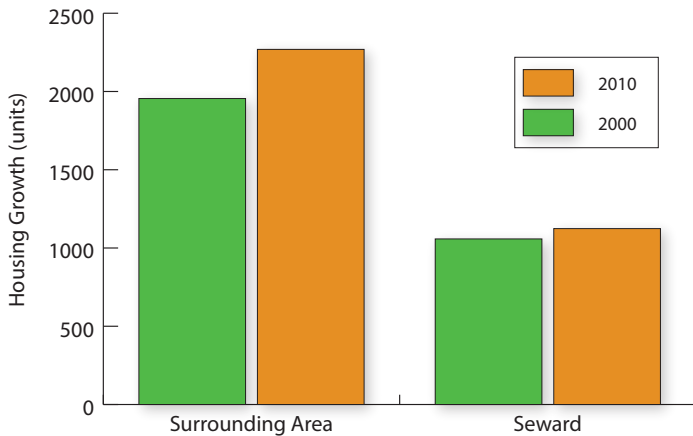


Figure 13 - Housing growth within City of Seward versus surrounding area, 2000-2010



8 Transportation

Seward has several modes of transportation available for traveling to and from the community. The Seward Highway remains the primary access route to and from Seward to the rest of Alaska. The Alaska Railroad's southern terminus is at Seward and provides scheduled service to Anchorage.

8.1 Parking and Traffic

8.1.1 Traffic

Traffic on the Seward Highway and within Seward's city limits peaks during the summer with the influx of tourists. Traffic speeds throughout the community are appropriate for the urban setting. There are no traffic signals within the city.

8.1.2 Parking

The City of Seward has six parking lots in the boat harbor. The North Lot and South Lot provide parking for those interested in going out on a fishing or wildlife tour. The Center Lot is located in the heart of the boat harbor and is strictly a two-hour maximum lot. The South Harbor Uplands Lot and Northeast Lot accommodate vehicles with trailers. These lots contain 50 foot stalls and are located near the west boat ramp and northeast boat ramp. The Permit Lot is strictly for permit holders and is also the location for the Parking Department office. Parking fees are now collected via automated pay stations in the harbor area.



On-street parallel parking is available throughout the city with angled on-street parking available along sections of Fourth and Fifth Avenues. On-street parking is free.

8.2 Transit

There is a city-operated seasonal shuttle bus that provides service between the railroad depot, cruise ship terminal, and downtown. The shuttle is funded with cruise ship taxes.

There is no regularly scheduled bus service within Seward and the surrounding area. Seward Bus Lines provide service between Seward and Anchorage, with connections to other Kenai Peninsula destinations on a daily basis. A Senior Center van currently serves the older residents.

The Seward Public Transit Human Services Coordination Plan (2015) (not adopted) analyzed demographics, services, and geographies in Seward and the surrounding area. The purpose was to understand the current needs and provide high quality access to the city and region's human services. Based on this analysis, it was estimated that between 20 and 400 trips per day were being unmet in Seward and the surrounding area, and that additional public transportation services were needed in order to provide a desired level of access. The plan recommended a combination of checkpoint and route deviation services. Making this combination of transit available will require the coordination and cooperative efforts of the City, the Central Area Rural Transit System, Inc. (CARTS), human service organizations, and a number of other local entities (LSC Transportation Consultants, Inc., 2015).

8.2.1 Railroad

Daily rail service between Anchorage and Seward is provided from May through September. The Alaska Railroad owns a 350.6-acre reserve in Seward that is used for train operations, as well as a passenger depot and terminal facilities. These lands include the docks and adjacent uplands, which support intermodal operations. Portions of the land used to support railroad operations, or those not set aside for future capital and expansion opportunities, are made available for lease or permitted use (Alaska Railroad Corporation, 2014).



ARRC acquired the Seward Coal Loading Facility (SCLF) in 2003 and has made subsequent repairs and improvements to the facility. As of 2014, the SCLF is the only facility available in Alaska to export coal.

8.2.2 Airport

The State of Alaska maintains paved airstrips at the north end of Resurrection Bay. The main runway is 4,240 feet long and 100 feet wide. The second, short runway is 2,200 feet long and 75 feet wide.

The airport has flooded a number of times over the last 10 years, including multiple occurrences in 2013. The State is currently overseeing an Airport Improvement and Design project to develop engineering alternatives to protect the airport facilities from further recurrent flooding damage.

Although charter flights to nearby destinations are available, no scheduled commercial service is available at the airport.

8.2.3 Alaska Marine Highway

The State-run ferry service discontinued service to Seward in 2005.

8.3 Summary of Planning Issues and Trends

- * Investigate the viability of year-round public transit services.
- * Conduct an inventory of non-ADA compliant sidewalks and bring them into compliance.
- * Ensure connectivity between the harbor and downtown.



9 Port and Harbor

9.1 Seward Marine Industrial Center

The City of Seward has expanded the Seward Marine Industrial Center (SMIC) considerably since the last comprehensive plan update. Most recently, construction of the much-anticipated breakwater began in 2016. This improvement project will allow vessels to dock at the SMIC without fear of damage from waves, a concern prevalent in the past. Plans include adding new linear floats, upgrades to existing docks, and installation of a crane. A vessel washdown pad was installed which allows for containment and proper disposal of washdown water. A new 330-ton boat lift was added in 2015.

Vigor Industrial operates a full-service shipyard at the SMIC, including a 5,000-ton lift that can handle vessels up to 300 feet long.

9.2 Seward Boat Harbor

The Seward Boat Harbor is a significant aspect of the overall commercial and economic picture of the City of Seward. The existing harbor was constructed immediately following the 1964 earthquake and had minimal upgrades until 1998. At that time, the harbor was owned by the State of Alaska, but operated by the City. In June 1998 the Seward City Council authorized the City Manager to negotiate a transfer of the harbor and all of the associated improvements from the State of Alaska to the City of Seward.

The 2014 Seward Boat Harbor Plan provides in-depth analysis of the current and planned facilities, operating costs, and physical characteristics. Recent harbor upgrades include the replacement of floats, construction of fish cleaning stations, the installation of a new boat lift dock, creation of the south harbor uplands and an expanded breakwater.

The Alaska Railroad is also moving forward with harbor improvements that include additional moorage/wharf capacity, new roads, and increased industrial space.

9.3 Summary of Planning Issues and Trends

- * The Seward Marine Industrial Center's recent and ongoing upgrades will potentially stimulate additional marine industry economic activity.
- * Seward's marine facilities may see increased use with the opening of the Northwest Passage and additional arctic marine traffic.



10 Recreation

The City of Seward is surrounded by many opportunities for outdoor recreation. This includes hiking, boating, fishing, flight-seeing, birding, hunting, and camping.

- * Continued increases in tourist numbers may impact recreation facilities.

10.1 Campgrounds

The City of Seward operates seven separate campgrounds, six of which are within Waterfront Park. All sites are on a first-come, first-served basis; reservations for caravan groups of 10 units or more can be made. The City will begin testing a pilot program in 2017 / 2018 to allow pre-paid reservations. Ninety-nine sites have electrical and water hook-ups for RVs. These sites cost \$40 per night. Tents can camp in designated 'tent camping' areas along Ballaine Boulevard and in Forest Acres campground. There is no tent camping during the winter, due to lack of water / sewer and restroom facilities. Winter camping is available at times to self-contained RVs. All camping fees are collected via automated self-serve kiosks. Waterfront Park offers free Wi-Fi, and a self-pay sewer dump station is located on Ballaine Boulevard.

Approximately 10 miles from Seward, the National Park Service operates a walk-in, 12-site, tent campground at Exit Glacier.

There are also five private campgrounds/RV parks in the Seward area, and one military recreation area that offers camping and RV sites.

10.2 Parks, Ball Fields, and Picnic Areas

The City of Seward maintains nine public parks, three ball fields, and five picnic areas or pavilions. Pavilions can be reserved through the Parks and Recreation department.

10.3 Summary of Planning Issues and Trends

- * Outdoor recreation is a major attraction for visitors and residents of Seward.



11 Public Facilities and Services

11.1 Education

The Kenai Peninsula Borough School District operates three schools in Seward covering grades K-12. Seward Elementary School, Seward Middle School, and Seward High School are located near each other on the north end of town.

Enrollment has remained steady over the past four school years, with minor fluctuations. Beginning with the 2014/15 school year, sixth grade was moved from the elementary school to the middle school.

Table 8 - Seward K-12 School Enrollment

School Enrollment				
School	'15/'16	'14/'15	'13/'14	'12/'13
Elementary	296	282	338	336
Middle	123	118	81	83
High	164	182	175	182

Source: Kenai Peninsula School District Department of Finance

The Alaska Vocational Technical Center (AVTEC) maintains facilities in the City of Seward and offers numerous courses, including maritime trades, information technology, building technology and culinary arts. The Alaska Maritime Training Center provides a variety of US Coast Guard approved courses, and is distinguished for its state-of-the-art radar navigation and ship's pilot training programs.

11.2 Health Care & Social Services

Seward offers a broad range of health care services, which also contribute significantly to the local economy.

Providence Medical Center is city-owned and managed by Providence Health Services, and includes a 24-hour emergency department; laboratory and radiology services; physical, speech, and occupational therapies; and a long term care facility. Those with serious injuries

and illnesses requiring specialized care are sent by air or ground medivac to Anchorage.

Chugachmiut North Star Health Clinic is available to members of the Chugachmiut tribe. It provides primary care services with a focus on preventative patient education and screening. Services include acute and chronic illness care, emergency care, illness prevention education, routine screening exams, well childcare and immunizations, prenatal care, and behavioral health.

The Seward Community Health Center is a federally-qualified health center that provides non-emergency services such as wellness visits, family medicine, labs, well child care, physical examinations, and health education and counseling.

SeaView is a mental/behavioral health care provider that services individuals with disabilities through residential and support services such as assisted living, community prevention programs, family development services, and substance abuse and recovery services.

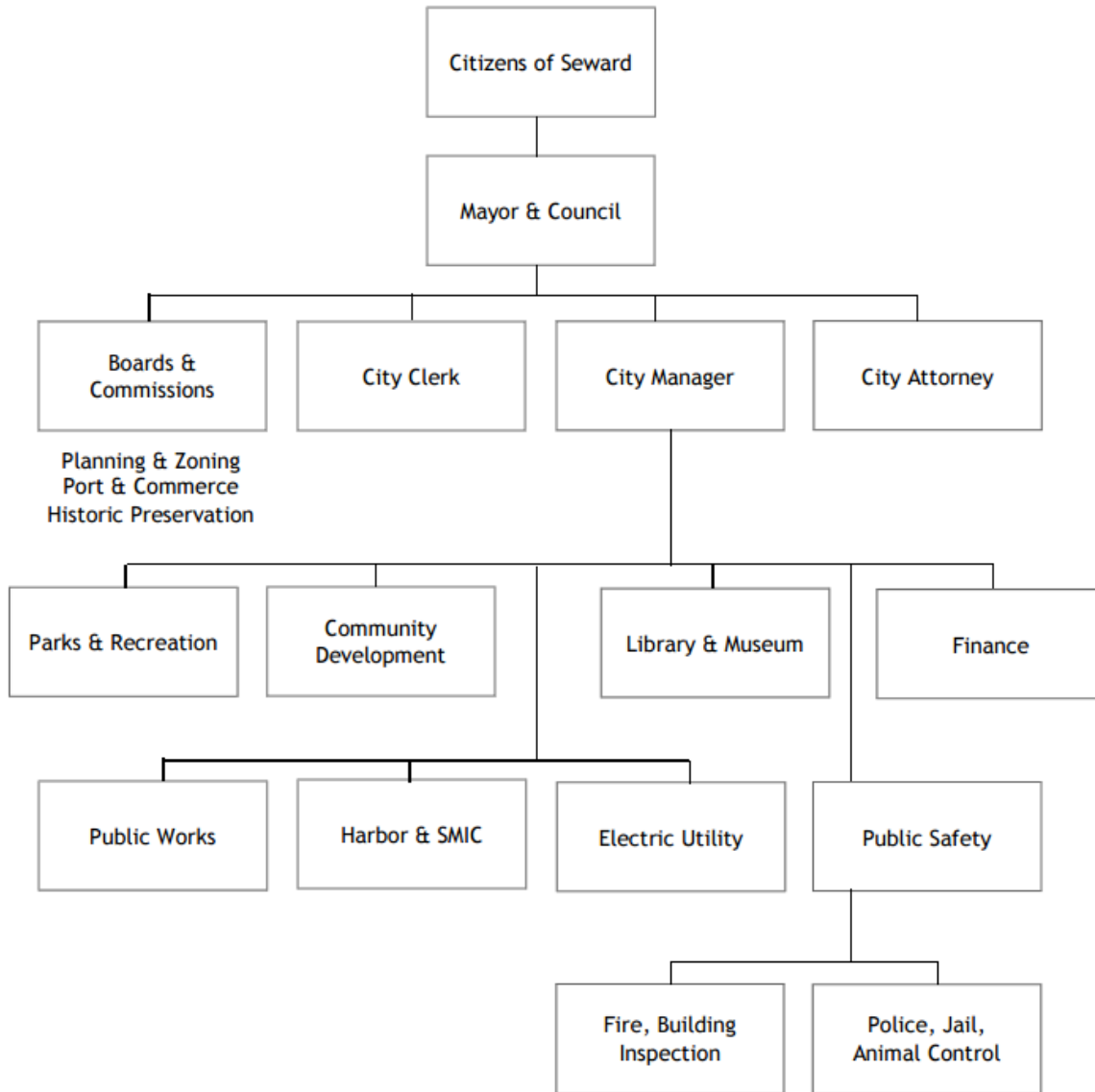
11.3 City Government & Finances

Seward is a home-rule city located within the Kenai Peninsula Borough. An elected seven-member council directs the city manager (see Figure 13). City services are funded through taxes and service charges. Taxes include a four percent sales tax, a four percent bed tax, and a property tax of 3.12 mils.

The bulk of Seward's sales tax (47%) is generated during the summer (June-August) with the influx of summer visitors.

The City's taxpayers have become more diverse over the last several years, but still lean toward an over-dependence on tourism-related businesses and the visitor industry.

Figure 14 - City of Seward organizational chart



11.3.1 Kenai Peninsula Borough

The Kenai Peninsula Borough functions similarly to counties in other states. Incorporated in January 1964 as a second-class borough under the authority of the State of Alaska, the borough is responsible for area wide education, solid-waste management, planning, platting, taxation, and assessment. In January 1990, the borough delegated zoning powers to the city along with the ability to make land use plan amendments to the comprehensive plan of the city. The borough has also delegated planning and platting advisory authority to the city. Locally authorized service areas provide fire, flooding, emergency, and recreation services. An elected mayor

serves as the chief administrator and works with an elected nine-member legislative assembly. The borough delegates education responsibilities to the Kenai Peninsula Borough School District, which is managed by a superintendent hired by an elected nine-member school board. **Summary of Planning Issues and Trends**

- * Identify a mechanism for prioritizing and funding city infrastructure improvements and major maintenance of existing assets.
- * State fiscal issues are resulting in less state funding assistance to local governments.



12 Public Safety

The city police department consists of ten officers and six sworn volunteers that assist in times when the population swells for special events. The department also provides a Safe Kids program, drug awareness instruction, an officer in the schools, motor vehicle registrations, drivers licensing, a 12-bed jail, and 24-hour dispatch and radio communications for all emergency services on the eastern peninsula. Vehicles include ten (10) police cars.

The Seward Animal Shelter, operated by the police department, provides animal licensing and control.

The police department maintains the 911 service locally with monitors that display incoming caller information, phones for the hearing impaired, marine VHF, emergency Citizens Band radios, and civil defense phones. This service is integrated with the Kenai Peninsula Borough system.



Figure 15 - City of Seward Police Station

The State Troopers service most of the eastern peninsula (up to Mile 52 on the Seward Highway and up to Mile 62 on the Sterling Highway), with one sergeant and two troopers based in Seward. The State Troopers have a mutual aid agreement with the city to assist each other with law enforcement. All search and rescue operations are coordinated by the troopers, and include the US Coast Guard and Civil Air Patrol as necessary. One wildlife enforcement officer serves the same area.

Seward maintains two fire stations. The main fire station is located on Fourth Avenue, with a satellite station located in SMIC. The main station houses three engines

with tanks (three 1,500-gpm), two rescue units, and three support vehicles. Other equipment includes the fire boat John Foster. The satellite station houses a 1,500 gpm quint (ladder truck) and a rescue unit. There are two hydrant systems, one on the west side of the bay and a separate one for SMIC. The department is staffed by a full-time chief and deputy, administrative assistant and building inspector, with 30 volunteers, and provides fire services within the city. Services include fire suppression, search and rescue, vehicle extrication, inspections, plan reviews, and public training and education. The City of Seward has mutual aid agreements with the Bear Creek Fire Service area, the Moose Pass Volunteer Fire Company, United States Forest Service, and the State of Alaska Division of Forestry.

Emergency Medical Services

The Seward Volunteer Ambulance Corps (SVAC) covers a service area to Mile 38 on the Seward Highway, and also provide ground transportation to Anchorage. They provide emergency medical services using 18 trained volunteers and three Type-1 Advance Life Support Ambulances. Due to fewer volunteers, SVAC no longer provides ground transportation to Anchorage. This has resulted in a significant increase in fixed wing and helicopter medical flights and an increase in medical costs. Seward must consider how to reestablish ground ambulance service between Seward and Anchorage. The city and Providence are conducting a feasibility study to determine the costs of adding the ambulance service.

The Seward Fire Service and the Bear Creek Fire Service Area both have search and rescue response capability and automatically respond with SVAC calls.

12.1 Emergency Preparedness

The City of Seward operates under an Emergency Operations Plan that provides direction and control during periods of emergency. It gives emergency instructions for use with the public, and directs coordination with outside assistance from private, state, federal and national relief organizations. The plan includes check lists to provide



for maximum protection of life and property, as well as recovery efforts after an emergency. This plan is updated and maintained by the Seward Fire Department, and can be viewed at the fire department, the library, and at all city departments. It was last updated in 2015.

12.2 Library Museum

The Seward Community Library & Museum is a unique combined public library, museum, archives and community center serving Seward and the surrounding area providing opportunities for equal access to information, technology, lifelong learning, community enrichment, and the preservation of Seward’s heritage.

The museum is a partnership between the City of Seward and the Resurrection Bay Historical Society, whose collection of objects, photographs, and archives is housed and exhibited in the museum spaces.



12.3 Summary of Planning Issues and Trends

- * The main fire station is over 50 years old and needs to be updated.
- * Diminishing state funding for State Troopers and community jails may increase responsibilities of local law enforcement.



13 Utilities

13.1 Water

The City of Seward provides water to its residents from groundwater sources at 3,800 gallons per minute (gpm). Total reserves equal 620,000 gallons. Water consumption has averaged 1.2 million gallons per day (gpd). Much of the existing water system in Seward was built by the USACE prior to the construction of the Seward Highway. Originally designed as a conventional loop system, it has subsequently developed in a linear fashion due to the topography of the area.

The City of Seward 2010 Comprehensive Plan identified that water capacity was adequate in 1990, but stated that “the infrastructure is old and will eventually be in need of replacement.” A recent water and sewer plan produced detailed recommendations for system improvements. Major improvements have been made in recent years.

In recent years the city has taken several significant measures regarding water service, including the restriction of development in the Lowell Creek watershed area to protect the city’s potable water supply, and the extension of water service to SMIC, and the upgrade of the water main from Mile 0 to 1 of the Seward Highway. In addition, two new wells have been installed at Fort Raymond, one well was upgraded, one water storage was refurbished and a new 600,000 gallon water storage tank was constructed in the northern part of the city.

13.2 Wastewater

The Seward wastewater system serves the immediate city and the Fourth of July Creek area, which is a separate system. Some areas, such as the airport and Cliff Addition, are not currently served. Usage is approximately 700,000 gpd through the sewer main and pump station. It is rated at 880,000 gpd. The system has a capacity of twice that volume. Wastewater for the city proper is treated at the Lowell Point Wastewater Treatment Plant by a series of four lift stations. The treatment plant is located approximately one mile south of the central business district, outside city limits. Wastewater for the Fourth of July

area is treated at SMIC. The two main components of the wastewater system are the two sewer treatment ponds at Lowell Point and SMIC. Both are dredged and repaired to include new oxygenation system upgrades in 2016.

The sewer system consists of a network of collector sewers that serve residential and commercial customers, and then discharge into the main line interceptor sewer at various points along its length. The interceptor system consists of a combination of gravity sewers, pump stations, and force mains that transport sewage, beginning from the Forest Acres Subdivision in the north. It then collects sewage along the Seward Highway, Fourth Avenue, Ballaine Boulevard, and Railway Avenue, and finally discharges it to the sewage treatment lagoon located off Lowell Point Road.

13.3 Electricity

The Seward Electric System (SES) operated by the City of Seward purchases its electrical power from Chugach Electric Association. Several improvements have been made to the city’s electrical system in recent years. The power system was upgraded to include the 115 KV line from Mile 44 to Mile 25. The power line from mile 18 to mile 3 was also upgraded to 115 KV in capacity, although that segment is energized only to 69 KV. Two additional plans call for the upgrading of electrical distribution and underground burial of electrical corridors where possible. A new 5,000 square foot electric utility warehouse and storage building was constructed at Fort Raymond allowing four (4) of the current six (6) generators to be relocated in the building and offering indoor storage of inventory and upgraded electronic control systems for the generators. Two replacement generators were purchased 2008. In 2016 the utility operated 2,800 meters, including 70 miles of distribution lines, 48 miles of transmission lines and three (3) substations. The average annual load was 8 megawatts, with sales of approximately 53,000,000 KWH.

Electric rates change seasonally to offer rate relief to year-round residential and general service customers.



That is, the rate paid by customers during the winter is lower than that paid by customers during the summer.

13.4 Solid Waste & Recycling

Solid waste generated in Seward is collected by Alaska Waste under contract with the city. The Seward landfill, located on the north edge of town, was closed in 1992 and replaced by a solid waste transfer facility. The transfer facility is contracted by the Kenai Peninsula Borough to Alaska Waste.

Annually, the Seward Transfer and Recycle Center sends over 5,000 tons of solid waste to the Central Peninsula Landfill, and over 30 tons of aluminum, glass, newspaper, corrugated cardboard, and office paper to the Anchorage Recycle Center. In 1997, an inert waste land fill was opened to accept land clearings, metal scraps, and construction materials up to a given limit annually. Excess inert material is transferred out.

13.4.1 Communications

The local telephone system has a capacity of 15,000 lines, with over 3,300 lines currently in service. The local utility provides long-distance service through several other communications providers, including internet services through the local TV cable system, and a recently laid fiber optic cable. Seward facilities currently has limited access to the two fiber optic cables running through town, although AVTEC, Providence Seward Medical Center and ASLC are equipped and can use videoconferencing in their operations. Cellular service is available through a provider. Upgrading and expanding connections to modern telecommunications networks need to be continued to support business and government operations.

13.5 Summary of Planning Issues and Trends

* Generally, the city needs to have public utilities and services which are not out-of-date in order to maintain and attract new businesses, industry, and residents. Some development within city limits is stymied by lack of sufficient water and sewer service. The extension of the sewer system to properties within city

limits on the west side of the bay, to SMIC, and the airport continues to be a need.

- * People value the quality of city water. Replacement of aging infrastructure for water distribution, and protecting the city’s potable water supply in the Lowell Canyon watershed, continues to be a concern.
- * Providing sufficient power to attract industry is an ongoing concern; energizing the transmission line to a higher voltage into Seward remains a possibility. The city is also interested in bringing liquid natural gas as a fuel, if a viable distribution system can be established and gas can be shipped into Seward at a feasible rate. Such an effort may be more likely with the development of a natural gas line.
- * Area wide animal control is an issue. The Kenai Peninsula Borough does not provide this function, but the city does and is called on to handle problems. Animal control services, in cooperation with the borough in areas beyond the city, should be continued. Relocation of the animal shelter to a more suitable location should be addressed.
- * Most communication transmissions to and from Seward go through a limited number of main trunks, which are a limited slow speed. Although much improved, continued updating of telephone and telecommunications equipment and lines is necessary to provide fast, reliable service so agencies and businesses can be efficient and up-to-date in their practices.



14 Natural Hazards

The City of Seward is particularly susceptible to earthquakes, tsunamis, and stream flooding which may be aggravated by heavy rains, melt runoff, heightened tidal action, and severe winds. During winter, deep snow and avalanches occasionally hamper transportation and emergency response in the community, which is potentially a major factor during a disaster. Natural hazards are something the City of Seward is all too familiar, and the community has taken a variety of steps to mitigate their affects. In addition to controlled development, land use may be subject to requirements of other programs such as the Federal Emergency Management Agency (FEMA), and the US Army Corps of Engineers (USACE).

14.1 Tsunamis

The 1964 Great Alaska Earthquake had a devastating effect on Seward with loss of life, destroyed livelihoods, property damage, and a changed landscape. The waterfront area along the west side of Resurrection Bay suffered the most lasting damage due to the loss of the Port of Seward and Alaska Railroad facilities. Development should continue to be controlled in this area of high seismic risk, with zoning restricted to Parks.

In response to the 1964 earthquake, Seward became the first tsunami ready community in Alaska. The USACE conducted a study that located hazardous zones. Seward has placed warning signs in those areas and has restricted development, keeping the beachfront as a park and camping area. In order to protect property owners and insurance companies from undue financial hardship related to natural hazards, the City of Seward participates in the national Insurance Service Office (ISO) rating system and programs. This allows for the reduction of insurance liability and rates, and provides incentives for more safety measures.

14.2 Flooding and Floodplain Development

All flat land along the southcentral Alaskan coast is floodplain, as a result flooding of streams and rivers has historically occurred in Seward and the outlying areas. The most recent flooding occurred in 2012. Seward participates in the National Flood Insurance Program, and last revised its floodplain maps in 2016. Seward voted in the 2003 Kenai Peninsula Borough election to form a flood service area with Bear Creek. The Seward/Bear Creek Flood Service Area will address the most persistent, regularly occurring problem areas.

14.2.1 Lowell Creek Diversion Tunnel and Canyon

Much of Seward is built on the alluvial fan created by Lowell Creek, prior to the tunnel being built to divert Lowell Creek away from Jefferson Street and the downtown area. The Lowell Creek Diversion Tunnel drains Lowell Creek and Lowell Canyon streams through Bear Mountain to Resurrection Bay. The tunnel is constructed through rock, and is grouted and lined with rails on the bottom designed to help prevent damage from heavy rocks and debris that flow through the tunnel. These rocks cause extensive damage and erosion, which requires periodic rebuilding and repair to the interior of the tunnel. There is potential for catastrophic damage as the tunnel is susceptible to clogging up; the rock above the portal is unstable. If this occurred, floodwaters can come straight down the canyon to Jefferson Street and downtown. There are several homes in the canyon with only one way out, which could be a life threatening situation.

14.2.2 Lowell Point

The stream at Lowell Point, which had a landslide during the flood of 2012, needs to be kept as clear as possible. This will give an unobstructed straight flow to the ocean and avoid impacting the sewage lagoon that is directly in its course.



14.2.3 Japanese Creek

During the 1986 flood, Japanese Creek breached the dike next to the water tank. The Creek is at high velocity at all times, but particularly during flood events. It shoots straight out of a narrow steep canyon and then makes a left turn heading toward the transfer facility. If Japanese Creek breaks through near this corner it will head directly for the two schools, possibly the Forest Acres Recreation Camp, and many homes below.

14.2.4 Resurrection River

The Resurrection River channels have flooded the airport several times in the last decade. Protection of the airport from erosion and flooding is currently being assessed by the Alaska Department of Transportation and Public Facilities.

14.2.5 Clear Creek

The small stream at Mile 2 Seward Highway is excavated each year. Clear Creek should be channeled every couple years to avoid coming out of its banks as it did during the 1986 flood. This is private property. If the lower reaches are not constantly cleared, the road in this area is susceptible to being destroyed.

14.2.6 Fourth of July Creek

Fourth of July Creek is powerful when it reaches flood stage. During past years it has exceeded its limits. During the 1986 flood, the river took out the rip-rap wall and posed the potential threat of heading directly for the ship lift. If the short breakwater on the northern side of the valley behind the Spring Creek Correctional Center (SCCC) were to break, it could enter the Correctional Center. It could also destroy the sawmill and chip pile. A flash flood would threaten to breach the dike.

14.2.7 Subdivision Flooding

As a result of city floodplain delineation, planning, and flood control projects, most flooding during high rainfall events occurs outside of municipal boundaries. The Old Mill Subdivision and the Questa Woods area are very vulnerable to flooding.

14.3 Avalanches and Landslides

Steep slopes, which may be susceptible to avalanches and landslides, occur on the edge of town west of First Avenue, on the west side of Resurrection Bay along Lowell Point Road, and the eastern section of Nash Road as it goes up the hill toward the Fourth of July Creek area. The potential for avalanche/landslide hazards to develop in areas of steep slopes should be analyzed.

There is also a potential for avalanches to close the Seward Highway. A 1982 avalanche study by the Alaska Division of Geological and Geophysical Surveys identified 60 avalanche paths along the Seward Highway.

14.4 Summary of Planning Issues and Trends

* The following flood dangers exist:

- ◇ The Lowell Creek Diversion Tunnel could in times of high water clog up or collapse, resulting in flooding public and private property, including the hospital.
- ◇ The stream at Lowell Point is susceptible to landslides and can lead to road closures and flooding.
- ◇ The dike next to the water tank could breach from high velocities of water from Japanese Creek, flooding Seward Resort and public and private property in Forest Acres subdivision.
- ◇ Resurrection River channel problems can lead to airport erosion and potential flood problems for roads and structures in the industrial area, as occurred in the 2012 flood.
- ◇ Clear Creek streams can clog up and flood roads, causing damage.
- ◇ Potential for a flash flood from the breaching of the dike at Fourth of July Creek could endanger lives at Spring Creek Correctional Center and/or community security.
- ◇ Some subdivisions, because of the way buildings are sited and spaced, are vulnerable to flooding.



15 Quality of Life

As a community, Seward has taken many deliberate steps to retain and improve the quality of life enjoyed by residents and visitors. Investments in city services and infrastructure, educational and economic opportunities, health and social services, housing, recreation, and historic assets have been discussed throughout this plan. Many of these efforts are the results of previous comprehensive planning by the citizens and officials of Seward, and are ongoing today. Previous plans and surveys reveal positive factors as expressed by its residents:

- * Pristine natural resources
- * Recreational opportunities
- * Low crime rates
- * No traffic lights or parking meters
- * Slow pace of life
- * High quality public services
- * Cultural variety
- * Highway and boat accessibility
- * Small town community atmosphere
- * Less congestion than other towns
- * Good place to raise children
- * Business and job opportunities
- * Heritage and history
- * Factors that negatively impact the quality of life according to residents include the following:
 - * Poor climate
 - * Drug and alcohol abuse
 - * Lack of shopping options
 - * Lack of cultural activities
 - * Need for beautification of public and private property
 - * Shortage of full-time, year-round employment
 - * Isolation from other towns
 - * High cost of living
 - * Influx of tourists and crowding
 - * Lack of housing options
- * These values and concerns will be explored in more depth during the comprehensive planning process.



16 Natural Environment and Community Appearance

Seward is surrounded by a dynamic ecosystem of mountains, ice and ocean. The natural environment supports a vast array of wildlife, including sea otters, orcas, whales, sea lions, sea birds, eagles and bears. Boat and plane tours, as well as kayaking and hiking bring people closer to these natural assets.

The Kenai Peninsula has an impressive trail system that is constantly developing.

This also includes World War Two Army installations scattered within and outside the city of Seward. In the Kenai Fjords National Park, one can view calving glaciers by boat or hike to the Harding Icefield from the Exit Glacier entrance. The ASLC offers a close up view of Alaska's marine ecosystem through its aquariums.

There are many different areas in Seward to view different types of birds. In Kenai Fjords National Park one can see a variety of sea birds. At Exit Glacier, one can view owls and watch for nesting dippers. In the marsh area at the end of the Seward airport, one can find many wetland species, and in the boat harbor, different types of gulls and loons.

Sometimes the natural environment is shaped by political and natural events. The Caines Head State Recreation Area is the scenic site of abandoned World War II structures including Fort McGilvray and the South Beach Garrison. The 1964 earthquake has left some visible history behind, although it may not be immediately recognizable. The Seward Community Library and Museum offers a variety of displays depicting Seward's history as well as historical videos for viewing by residents and visitors.

Accepted as a great asset by its citizens, the eclectic nature of the local architecture reflects the history and diversity of Seward. Seward's tremendous community pride is evident in the showcase of its historic structures and museum collections. The Seward Historic Preservation Commission in assistance with the city's Community Development and Library – Museum Departments have inventoried many of its historic properties, providing research and working closely with local citizens. Downtown has seen restoration of the Railroad Depot, L. V.

Ray Building, the Brown and Hawkins store, and new signage at Urbachs clothing store. In 2016, rehabilitation of the Osbo building on 4th Street began. The City of Seward has in addition to historical structures on the National Historic Register, a local Register of Historical Places. In 2016, the Eide-Stotko house (built 1905-10) located at 420 Third Ave was added to the local register and the 1905 Government Cable Office (Telegraph house) on 6th Avenue began its restoration.

In addition to increased restoration of historic buildings, Seward has improved its landscaping and beautification (Seward Historic Preservation Commission – Historic Plant & Tree Register provides an inroad to increase public awareness of Seward's significant plants and trees), given more attention to sign control (Planning & Zoning Commission – Seward Community Development Department), enhanced litter control with recycling collection bins established around town, assist in the increased community cleanup efforts. These events include the annual Super Saturday cleanups hosted by the Parks and Recreation Department in May, painted dumpsters at city campgrounds, and the annual coastal clean-ups hosted by RBCA (Resurrection Bay Conservation Alliance) and the ASLC. Some of the beautification efforts include the painting of more than a dozen murals reflecting important Seward themes on different wall expanses around town.

16.1 Historic Preservation

The designation of Seward as a Certified Local Government (CLG) affords the city the opportunity to request assistance from state and federal experts in a wide variety of preservation disciplines. As a requirement of CLG status, the city created the SHPC in 1992. This body of appointed citizen volunteers was tasked to look into Seward's historic assets including historic buildings, archaeological sites, and documents. They were charged with the development of a historic preservation plan. (Seward Historical Preservation Plan 1996 currently in process of revision, will be titled, Seward Historical Preservation Plan – 2017), identification and inventory of local historic and prehistoric resources, making recommendations for properties eligible for the National Register, and acting as



an advisory body to the city council, city administration, and other boards and commissions.

In 1974, the State of Alaska passed the Alaska Historic Preservation Act. The commissioner of the Alaska Department of Natural Resources was given overall responsibility for historic preservation duties. To assist the commissioner are the Alaska Historic Commission and the State Historic Preservation Officer (SHPO). The SHPO administers the Federal Historic Preservation Fund Program. It serves as a “clearinghouse” of information on the state’s historic, prehistoric and archaeological resources; and encourages and assists local governments in historic preservation activities through the CLG program.

The National Historic Preservation Act (NHPA) was enacted in 1966 requiring that historic and prehistoric properties be taken into consideration during implementation of all federally funded projects. The NHPA established several programs to encourage historic preservation. These include the National Register of Historic Places and matching grant funds administered through state historic preservation offices.

additional local regulations and zoning requirements as a strategy to implement historic preservation. Community opinion may be shaped by a lack of awareness of historic preservation goals, lack of explicit incentives, and unclear procedures to follow.

16.2 Summary of Planning Issues and Trends

- * The Historic Preservation Plan, Phase II (1996) has set forth community goals for historic preservation in Seward along with the historical perspective and background for the political and economic framework within which these goals will be achieved. The Seward Historic Preservation Plan (1996) is currently in revision process by the Seward Historic Preservation Commission and be eliminated when the updated plan is finalized.
- * Current responsibility for historic preservation oversight is administrated in cooperation with the staff of the Seward Library and Museum, Seward city administration, and the Community Development Department. Resources used by the volunteer commission is the state SHPO office and other state and federal agencies committed to historic preservation efforts.
- * Actively working with the public and regulatory commissions, city council and city administration can assist to strengthen any uncertainty about enacting