City of Valdez

212 Chenega Ave.
Valdez, AK 99686

Meeting Agenda - Final

Economic Diversification Commission

Wednesday, July 21, 2021 | **7:00 PM** | **Civic Center Conference Room**

Regular Meeting

WORK SESSION AGENDA - 6:00 pm

1. Prince William Sound Comprehensive Economic Development Strategy

REGULAR AGENDA - 7:00 PM

I. CALL TO ORDER

II. ROLL CALL

III. APPROVAL OF MINUTES

1. Economic Diversification Commission Regular Meeting Minutes of June 16, 2021

IV. PUBLIC BUSINESS FROM THE FLOOR

V. NEW BUSINESS

1. ACOE Project at Robe Lake

VI. COMMISSION BUSINESS FROM THE FLOOR

VII. ADJOURNMENT

File #: 21-0384, **Version:** 1

ITEM TITLE:
Prince William Sound Comprehensive Economic Development Strategy

SUBMITTED BY: Martha Barberio, Economic Development Director

FISCAL NOTES:

Expenditure Required: N/A
Unencumbered Balance: N/A
Funding Source: N/A

RECOMMENDATION:

Receive & File

SUMMARY STATEMENT:

City staff has received a draft PWS Comprehensive Economic Development Strategy (CEDS) from the McKinley Research Group. They will be presenting and asking for feedback from communities in the Prince William Sound region on the Goals & Objectives in this document. The feedback from pages 47-55 is what they are most interested in.



McKINLEY RESEARCH
GROUP, LLC

Formerly McDowell Group

PRINCE WILLIAM SOUND

Comprehensive Economic Development Strategy (DRAFT)

July 2021

PREPARED FOR:

Prince William Sound Economic Development District

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Acknowledgements

Special acknowledgement to funding support of U.S. Economic Development Administration, as well as the contributions and guidance of the Prince William Sound Economic District (PWSEDD) Comprehensive Economic Development Strategy (CEDS) Strategy Committee, and the PWSEDD staff to this regional CEDS process. Below is the list of members.

PWS CEDS Strategy Committee

Mark Detter, City Manager, City of Valdez

Josie Hickel, Chugach Alaska Corporation

Helen Howarth, City Manager, City of Cordova

Jim Hunt, City Manager, City of Whittier

Brooke Mallory, Native Village of Eyak

Nanci Robart, Tribal Administrator, Native Village of Tatitlek

Buell Russell, Tribal Administrator, Native Village of Chenega Bay

PWSEDD Staff

Kristin Carpenter, Executive Director

Jake Borst, Program Manager

Acronyms and Abbreviations

ACEP	Alaska Center for Energy & Power
ADEED	Alaska Department of Education and Early Development
ADOLWD	Alaska Department of Labor and Workforce Development
AEA	Alaska Energy Authority
AHFC	Alaska Housing Finance Corporation
AIDEA	Alaska Industrial Development and Export Authority
AML	Alaska Marine Lines
ANCSA	Alaska Native Claims Settlement Act
ANTHC	Alaska Native Tribal Health Consortium
ARRC	Alaska Railroad Corporation
ARUC	Alaska Rural Utility Cooperative
AVEC	Alaska Village Electric Cooperative
CEDS	Comprehensive Economic Development Strategy
CPV	Commercial Passengers Vessel
EDA	U.S. Economic Development Administration
EVOS	Exxon Valdez Oil Spill Trustee Council
FCC	Federal Communications Commission
FY	fiscal year
H&G	headed and gutted
IHS	Indian Health Service
kWH	kilowatt hour
MOC	Memorandum of Commitment
MOU	Memorandum of Understanding
PCE	Power Cost Equalization
PEAKS	Performance Evaluation for Alaska's Schools
PFD	Permanent Fund Dividend
PK	Pre-kindergarten
PWS	Prince William Sound
PWSC	Prince William Sound College
PWSEDD	Prince William Sound Economic Development District
SERVS	Ship Escort Response Vessel System
SFY	State fiscal year
SWOT	Strengths, Weaknesses, Opportunities, Threats
TAPS	Trans Alaska Pipeline System
UAA	University of Alaska Anchorage
USPS	U.S. Postal Service
VPSO	Village Public Safety Officer

CEDS Overview

Prince William Sound (PWS) is located at the north end of the Gulf of Alaska, extending over 20,000 square miles and similar in size to West Virginia. There are five communities in the sound: Chenega, Cordova, Tatitlek, Valdez, and Whittier; their combined population is 6,750 (2020). These communities are unconnected by a unified road system; access is dependent on water and air transportation. The waters of PWS are critical to the area's character and economy, sustaining more than 300 species of fish that are essential to commercial seafood production, sport fishing, and traditional subsistence practices. Aquatic plants, including kelp and seaweed, present opportunities for further mariculture development. The region has abundant timber resources and a variety of mineral resources and historically produced gold, silver, copper, and oil. Federally-owned lands make up most of the land in the PWS region, with U.S.-government ownership followed by that of the State, Alaska Native corporations (the largest private landowners in the region), municipalities, and then other private owners. High transportation costs, lack of regional connectedness, and other factors affect regional economic development initiatives.

To address economic development effectively, the Prince William Sound Economic Development District (PWSEDD) updated its five-year (2021-2025) Comprehensive Economic Development Strategy (CEDS). The CEDS process was managed by the PWSEDD and the PWS CEDS Strategy Committee. They developed a vision statement, and provided input on regional Strengths, Weaknesses, Opportunities, and Threats (SWOT), three overarching goals were developed with 16 priority objectives, and an action plan, including priority actions, timeline, responsibilities, expected costs, and potential funding sources.

Vision Statement: Prince William Sound is an alliance of vibrant, coastal communities collaborating to build on and sustain our natural resources through responsible economic development and regional connectivity.	
Goal A: Infrastructure Development	
Goal: Improve regional connection by enhancing transportation and utilities infrastructure. Enhance infrastructure to build resilience to climate change, increase economic development opportunities, and enrich the way of life in Prince William Sound.	**Priority Objective 1:** Develop regional transportation infrastructure. **Priority Objective 2:** Increase broadband internet access and capacity. **Priority Objective 3:** Increase housing quality and affordability **Priority Objective 4:** Enhance recreational infrastructure throughout the region. **Priority Objective 5:** Reduce energy costs.
Goal B: Workforce Development	
Goal: Boost the regional continuum of education from early childhood learning through post-secondary opportunities. Enhance employability skills and adapt to the evolving opportunities of regional economic development through education and training.	**Priority Objective 1:** Increase access to early childhood education. **Priority Objective 2:** Enhance in-region post-secondary vocational training opportunities. **Priority Objective 3:** Strengthen Prince William Sound connections in-region.

Goal C: Strengthen Existing Industries and Diversify Economy	
Goal: Seek business development and investment to promote regional industry growth, responsible resource development, and economic diversity. Attract business opportunities to the region that support employment opportunities in every season.	**Priority Objective 1:** Promote PWS as a tourism destination. **Priority Objective 2:** Support the local arts and humanities community. **Priority Objective 3:** Facilitate mariculture opportunities. **Priority Objective 4:** Seek food production and processing opportunities. **Priority Objective 5:** Identify climate change and mitigation projects. **Priority Objective 6:** Support responsible mineral/quarry exploration. **Priority Objective 7:** Support responsible forestry opportunities **Priority Objective 8:** Attract new residents who telework.

Chapter 1: Introduction

The Prince William Sound Economic Development District (PWSEDD) Comprehensive Economic Development Strategy (CEDS) is a five-year strategic plan for economic development. The CEDS process engages community leaders, leverages private sector involvement, and defines a strategic blueprint for regional collaboration. The U.S. Economic Development Administration (EDA) requires updates at least every five years for PWSEDD to qualify for assistance under Public Works and Economic Adjustment Assistance programs and for designation as an Economic Development District.

Methodology

In September 2020, PWSEDD issued an RFP for a contractor to prepare the CEDS. McKinley Research Group was selected and initiated work in October 2020 with a kick-off meeting with PWSEDD staff. During this meeting, the project schedule, supportive documents, executive interview candidates, and public engagement, including an online stakeholder survey and website content, were discussed.

Typically, a CEDS process includes community meetings and site visits. However, due to COVID-19, travel was restricted, and all public engagement process meetings were virtual, using video-conferencing technology.

Brief community profiles were developed for each of the five Prince William Sound communities – Chenega, Cordova, Tatitlek, Valdez, and Whittier. These profiles can be found in Appendix A.

Executive interviews were conducted by telephone with 26 stakeholders throughout the region. The purpose of the interviews was to gather feedback on the strengths, weaknesses, opportunities, and threats (SWOT), and to learn about economic development initiatives and expectations from the CEDS process. A list of interviewees can be found in Appendix B.

Throughout this update process, McKinley Research Group reviewed existing plans and documents to assess overlap in economic development strategies related to PWS infrastructure, transportation, and community planning. The intent of these reviews was to acknowledge current initiatives and planning in the CEDS update. A list of primary documents reviewed, as well as general reference sources, may be found in Appendix C.

An online survey was designed to capture regional residents' opinions of the region's top three SWOT focus areas related to the region's economy. Regional residents were encouraged to complete the survey through social media postings, radio shows, CEDS Strategy Committee member contacts, and other communications. The survey was fielded from November 12, 2020, to May 11, 2021. A summary of the online survey results can be found in Appendix D.

McKinley Research Group facilitated six virtual PWS CEDS Strategy Committee work sessions (in November 2020, and in February, March, April (twice), and July 2021). These work sessions included a review of the CEDS process, SWOT content, and reviewed PWSEDD's overarching economic development goals. PWS

CEDS Strategy Committee members provided input about development of the CEDS's vision statement along with a review of SWOT analysis and goal statements. They also conducted a series of exercises to prioritize objectives for each of the overarching goals. Action plans for the objectives were developed, including action items, timeline, responsibility, expected costs, and potential funding sources.

A review draft of the CEDS document was submitted to PWSEDD for internal review on June 29. A revised draft was submitted to the PWS CEDS Strategy Committee for review and approval during its July meeting. A final CEDS was submitted and approved in August 2021.

CEDS Document Organization

This document is organized as follows:

- *Chapter 1: Introduction*, including document organization and methodology
- *Chapter 2: Summary Background*, including PWS socioeconomic data
- *Chapter 3: SWOT Analysis*, describing economic development strengths, weaknesses, threats, and opportunities
- *Chapter 4: Economic Resiliency*, highlighting the resilience themes emerging from stakeholders and socioeconomic data
- *Chapter 5: Strategic Direction*, including the CED's goals, SWOT, priority objectives, and action plan
- *Chapter 6: Evaluation Framework*, providing the measures used to track action plan performance

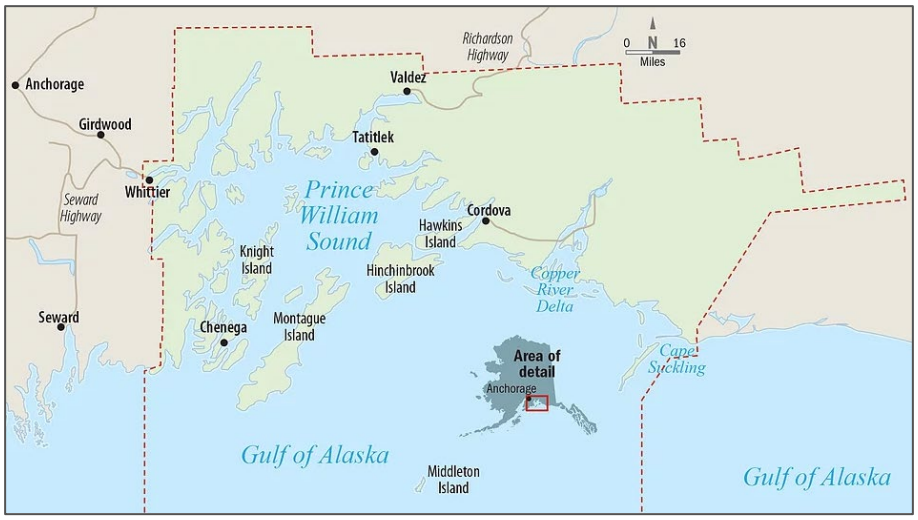
Appendices provide additional background information including:

- *Appendix A: Community Profiles*, including brief socioeconomic profiles of each PWS community
- *Appendix B*: List of Stakeholder Interviews: providing the interviewees and organizations represented
- *Appendix C:* Reference Materials, including references for planning documents and sources of socioeconomic information and data used throughout the CEDS process
- *Appendix D:* Stakeholder Online Survey Results, including general SWOT themes and verbatim additional comments

Regional Overview

Prince William Sound (PWS) is located at the north end of the Gulf of Alaska, extending over 20,000 square miles, and is made up of roughly half water and half land. For comparison, the region is similar in size to West Virginia. There are five communities in the sound: Chenega, Cordova, Tatitlek, Valdez, and Whittier. Brief profiles of these communities can be found in Appendix A.

Figure 1. Prince William Sound Map



Source: PWSEDD.

Data Considerations

PWS communities are within the U.S. Census Bureau's Chugach Census Area, a new census designation used first in the 2020 Decennial Census. This new census area represents a split of the former Valdez-Cordova Census Area into two regions: the Chugach Census Area and the Copper River Census Area. Wherever possible, this chapter uses data on the Chugach Census Area to represent the PWS communities; however, some data are only available at the Valdez-Cordova Census Area level.

Geography and Climate

The region has a variety of habitats including temperate rain forest, boreal forest, glaciers and icefields, and wetlands. The Chugach Mountains border PWS to the north and east, and the Kenai Mountains border it on the west. The Bering Glacier-Bagley Icefield lies to the east of the Copper River Delta.

Climate

PWS has a coastal climate characterized by mild temperatures and abundant precipitation. The Kuroshio Current brings warm ocean water west across PWS and the surrounding mountain ranges. Heavy rain and snowfall are common, with annual precipitation ranging from 69 inches in Valdez to 214 inches in Whittier. Despite the mild temperatures, erratic winds, tidal conditions, and heavy rain or snowfall often impact travel within and to the region.

Table 1. Average Precipitation and Snowfall by Weather Station, Prince William Sound, 1981-2010

Community	Average Annual Precipitation (Inches)	Average Annual Snowfall (Inches)
Chenega	131.23	98.9
Cordova	90.42	100.5
Valdez	69.03	326.3
Whittier	214.6	260.8

Source: National Centers for Environmental Information.

Natural Resources

A variety of natural resources abound in the PWS region. The waters of PWS are critical to the area's character and economy, sustaining more than 300 species of fish that are essential to commercial seafood production, sport fishing, and traditional subsistence practices. Jurisdiction over fisheries resources in PWS is split between the State of Alaska, with jurisdiction up to three miles offshore, and the U.S. government, which manages the area from three to 200 miles offshore known as the Exclusive Economic Zone. The sound is also a rich ecosystem for other marine life, including Orca, humpback whales, porpoise, sea otters, and many others. On land, the region is home to a host of wildlife, including resident or migratory birds, brown bear, moose, deer, fox, and many others.

PWS has abundant timber resources and is within the State of Alaska Division of Forestry Region I, which includes the coastal region from Southeast Alaska to Kodiak. Aquatic plants, including kelp and seaweed, are important parts of the sound's ecosystem and present opportunities for further mariculture development.

The region has a variety of mineral resources and historically produced gold, silver, copper, and oil. Additionally, indicators of manganese, chromium, and anthracite coal are also present alongside deposits of copper, gold-bearing quartz, and commercial quantities of granite.

Natural Hazards

Natural disasters are an ongoing source of risk in PWS. The region is within an active seismic zone in which earthquake activity occurs regularly. Tsunamis also pose significant risk due to seismic activity.

The March 27, 1964, earthquake (the Good Friday Earthquake) is the most notable example of these hazards and the devastation they can cause.[1,2] The magnitude 9.2 earthquake and resulting tsunami made previously habitable areas uninhabitable, including the village of Chenega, which lost 25 of its 76 residents. Thirteen

[1] Alaska Department of Natural Resources, Division of Geological & Geophysical Surveys, *Tsunami Inundation Maps of Cordova and Tatitlek*, Alaska https://dggs.alaska.gov/webpubs/dggs/ri/text/ri2014_001.pdf
[2] https://earthquake.usgs.gov/earthquakes/events/alaska1964/

lives were lost in Whittier as well, and numerous buildings, homes, and docks were damaged throughout the region. A new town site was developed in Valdez as the previous one was heavily damaged in the tsunami.

Landslides are another regional risk due to areas of steep terrain and seismic instability. The National Weather Service has identified a weak slope along Barry Arm, about 30 miles from Whittier, and with the potential for a landslide that could trigger a tsunami.[3] Heavy rainfall, ice jams, and other extreme weather conditions contribute to the natural hazards in PWS.

CLIMATE CHANGE

In PWS, impacts of climate change include coastal erosion, glacial melt, and ocean warming inducing acidification.

Coastal erosion will affect the region's infrastructure, likely requiring mitigation strategies and investment. Flooding and erosion have put numerous bridges and sections of the Copper River Highway at risk. The estimated cost to replace Bridge 339, due to flooding and erosion wear, totaled about $51 billion. In Cordova, the Scott and Eyak Rivers present an ongoing risk. In Valdez, the Valdez Glacier Stream, Mineral Creek, and Lowe River pose flood threats.

While the precise relationship between warmer ocean temperatures and PWS fish stocks is unknown, increased water temperatures could change the distribution or abundance of fisheries in the region.[4]

Deglaciation contributes to the severity of flood risks and rivers' increased sediment load, degrading spawning habitats and consequently the economic performance of fisheries across PWS. The Bering Glacier, east of PWS, has receded seven miles since 1900. This has increased the frequency of earthquakes as the boundary between tectonic plates becomes less stable due to the glacier's decreasing mass. Additionally, the increase in freshwater flows raises sea levels, damaging fragile coastal wetland ecosystems and adversely affecting shorebirds, wildlife, and fisheries. Large freshwater inflows to PWS also increase the rate of ocean acidification, making marine ecosystems less hospitable to native species upon which fisheries and other wildlife depend.[5] The ecological impacts of ocean warming and acidification were observed in the 2016 mass die-off of shore birds near Whittier. The National Parks Service attributes the die-off to starvation caused by a decrease in the population of cold-water zooplankton, which serve as a staple in the food chain for many PWS species.[6]

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[3] The National Weather Service, *Landslide-Generated Tsunami Risk in Prince William Sound*, Landslide-Generated Tsunami Risk in Prince William Sound (weather.gov)

[4] Terry Johnson, University of Alaska Fairbanks, Sea Grant Alaska. *Climate Change and Alaska Fisheries*. https://alaskaseagrant.org/wp-content/uploads/2018/02/Climate-Change-and-Fisheries_Johnson_WEB.pdf

[5] National Oceanic and Atmospheric Administration, *NOAA and partner scientists study ocean acidification in Prince William Sound,* HYPERLINK "https://research.noaa.gov/article/ArtMID/587/ArticleID/1078/NOAA-and-partner-scientists-study-ocean-acidification-in-Prince-William-Sound"NOAA and partner scientists study ocean acidification in Prince William Sound - Welcome to NOAA Research

[6] The National Parks Service, *Seabird Die-offs,* Seabird Die-Offs - Alaska Nature and Science (U.S. National Park Service) (nps.gov)

Land Ownership

Federally owned lands make up most of the land in the PWS region, with U.S.-government ownership followed by that of the State, Alaska Native corporations, municipalities, and then other private owners. Alaska Native corporations are the largest private landowners in the region.

Table 2. Land Ownership and Area, Prince William Sound

Category	Square Miles	Acres
Federal Lands		
Alaska Maritime Wildlife Refuge	305	195,430
Chugach National Forest	9,404	6,018,540
Bureau of Land Management	*	*
Protected Habitat	291	186,087
State Lands		
Copper River Delta Critical Habitat Area	860	550,667
Marine Parks and Recreation Sites	51	32,751
Protected Habitat	41	25,647
Other State Lands	611	367,639
Submerged and Tidal Lands	5,938	3,800,000
Alaska Native Corporation Lands		
Chenega Corporation	109	70,000
Chugach Alaska Corporation – full fee	591	378,000
Chugach Alaska Corporation – subsurface	859	550,000
Eyak Corporation	232	258,730
Tatitlek Corporation	113	72,000
Municipal Lands		
Chenega Bay	29	18,624
City of Cordova	60	38,380
Tatitlek	7	4,672
City of Valdez	277	177,344
City of Whittier	20	12,608

Source: PWSEDD, *Comprehensive Economic Development Strategies 2019*.

Protected Habitat

The1989 Exxon Valdez oil spill resulted in widespread environmental damage throughout PWS. As reparation for the extensive environmental damage and part of their restoration framework, the Exxon Valdez Oil Spill Trustee Council acquired vast tracts of land to manage in perpetuity. The Council's aim is to promote the natural recovery of spill-injured resources by minimizing the threat of additional developmental disruptions to PWS ecosystems. A secondary goal of the restoration framework is maintaining the land for

public enjoyment and future generations, which in turn keeps PWS an attractive destination for tourism, commercial fishing, subsistence activities, and general recreation, thereby improving quality of life.[7]

ANCSA Regional and Village Corporations

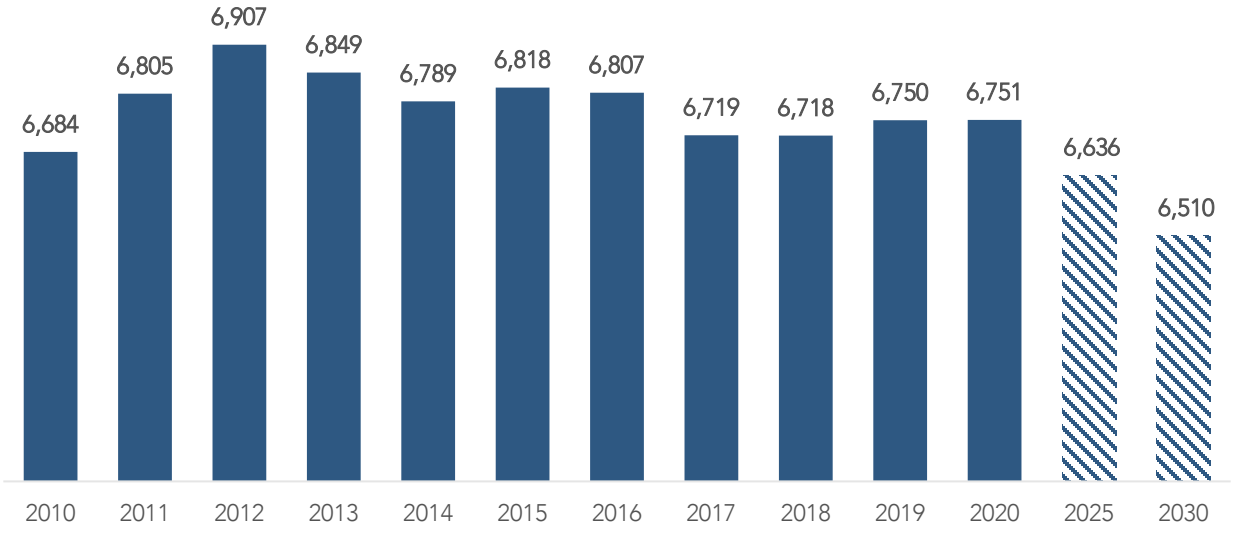
Chugach Alaska Corporation is the region's Alaska Native corporation, created pursuant to the Alaska Native Claims Settlement Act (ANCSA). Chugach Alaska is a corporation "committed to profitability, celebration of our heritage and ownership of our lands."[8] ANCSA village corporations in the region include Chenega Corporation, Tatitlek Corporation, and Eyak Corporation.

Demographic and Socioeconomic Characteristics

Current and Projected Population

In 2020, the Chugach Census Area population numbered 6,751 people. While increasing between 2010 and 2012, area population generally declined between 2013 and 2020. The most recent available projections anticipate the region's population to decline by 0.3% annually between 2020 and 2025, and by 0.4% between 2025 and 2030.[9]

Figure 2. Actual and Projected Population, Chugach Census Area, 2010-2020, 2025, 2030



Source: ADOLWD and McKinley Research Group estimates.

[7] https://www.adfg.alaska.gov/index.cfm?adfg=divisions.evosmission#:~:text=The%20mission%20of%20the%20Exxon,to%20establish%20and%20sustain%20a

[8] https://www.chugachgov.com/about/mission-and-core-behaviors/

[9] Population projections published by the DOLWD are currently available for the 2019-2045 period and are based on Valdez-Cordova Census Area population.

By Migration Patterns

A general trend of net out-migration (more residents leaving than moving to the region) has contributed to population decline in the Chugach Census Area since 2012. Rates of natural increase (births less deaths) have generally been steady in the census area over the past decade.

Table 3. Components of Population Change, Chugach Census Area, 2010-2020

Year	Births	Deaths	Natural Increase	Net Migration (In- minus Out-migration)	Population Change	Population at End of Period
2010-11	89	36	53	33	+86	6,805
2011-12	81	35	46	56	+102	6,907
2012-13	98	23	75	-133	-58	6,849
2013-14	79	38	41	-101	-60	6,789
2014-15	96	47	49	-20	+29	6,818
2015-16	92	38	54	-65	-11	6,807
2016-17	82	34	48	-136	-88	6,719
2017-18	84	30	54	-55	-1	6,718
2018-19	74	39	35	-3	+32	6,750
2019-20	83	41	42	-41	+1	6,751

Source: ADOLWD.

Just under half of Alaska residents who left the Chugach Census Area (46%) moved to Anchorage between 2019 and 2020. The Mat-Su had the second highest number of relocated residents (22%) from 2019 to 2020, followed by Kenai Peninsula and Fairbanks North Star boroughs (10% each).

Residents moving to the Chugach Census Area (33.8%) came from smaller regions across Alaska; just under 30% of residents moved from Anchorage. About 11% moved from the Mat-Su, Kenai Peninsula, and Fairbanks North Star boroughs, and about 5% from the Copper River Census Area.

Table 4. Intra-State Migration (Alaska Residents Only), Chugach Census Area, 2019-2020

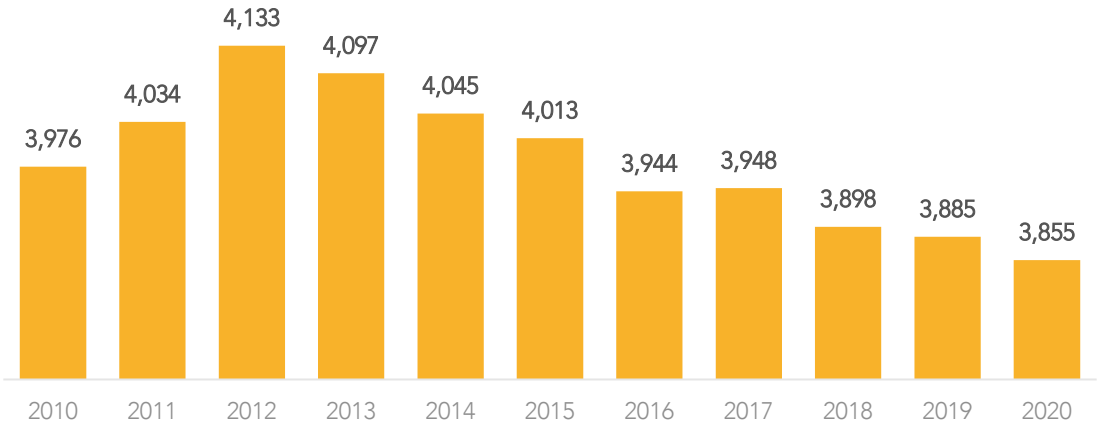
Location	To Chugach Census Area		From Chugach Census Area		Net Migration
	Number	Percent	Number	Percent	
Anchorage Municipality	41	28.9%	90	45.7%	-49
Matanuska-Susitna Borough	16	11.3%	44	22.3%	-28
Kenai Peninsula Borough	7	10.6%	20	10.2%	-13
Fairbanks North Star Borough	15	10.6%	20	3.0%	-5
Copper River Census Area	15	4.9%	6	10.2%	9
Other Alaska	48	33.8%	17	8.6%	31
Total	**142**	**100%**	**197**	**100%**	**-55**

Source: ADOLWD, PFD-Based Migration.

By Community

Valdez is the largest of the PWS communities, home to 57% of the region's population. As with the regional population, Valdez's population steadily declined in recent years, losing 278 residents (6.7% of the population) from a decade high of 4,133 in 2012 to 3,855 residents in 2020.

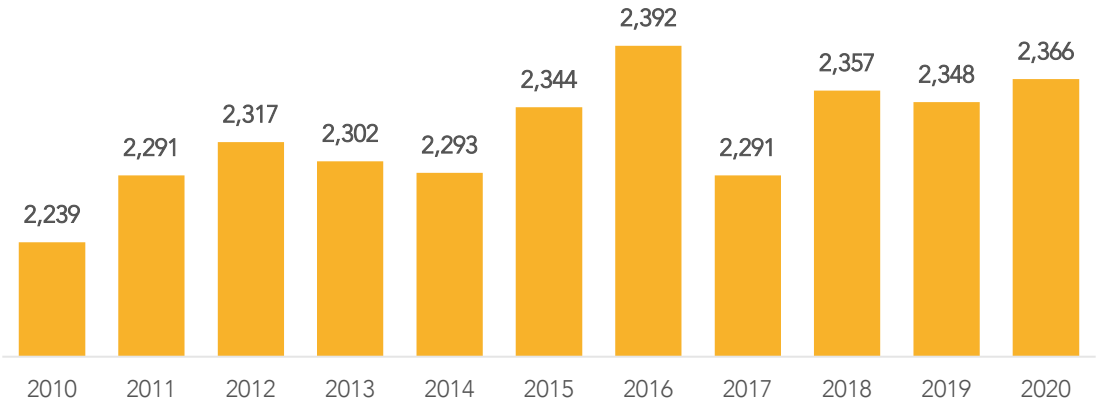
Figure 3. Valdez Population, 2010-2020



Source: ADOLWD.

Home to more than a third of the region's residents, Cordova's had overall growth of more than 125 people between 2010 and 2012 (5.7%), although annual growth has been varied during this period.

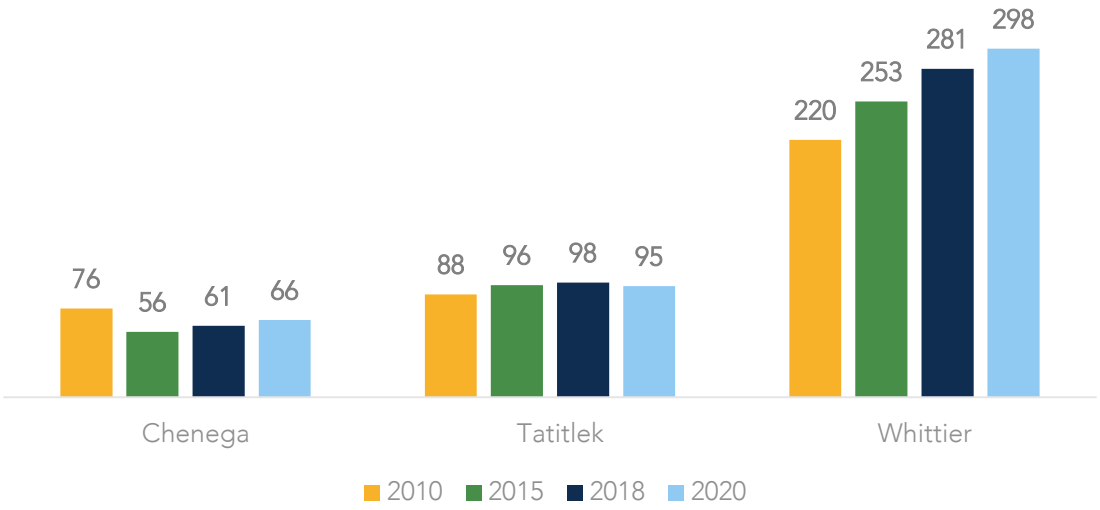
Figure 4. Cordova Population, 2010-2020



Source: ADOLWD.

The smallest community, Chenega, has averaged about 65 residents over the last 10 years, reflecting migration to and from the community. Tatilek has grown by a few residents, with seven more residents in 2020 than in 2010. Whittier has grown steadily since 2010, gaining almost 80 residents since 2010.

Figure 5. Population, Chenega, Tatitlek, Whittier, 2010-2020



Source: ADOLWD.

By Age

The elder population (age 65 and older) in the Valdez-Cordova Census Area is projected to increase 39%, or nearly 500 people, by 2025. The youth population (less than age 20) is projected to decline by 1.7% by 2025, or 44 people. While the middle-aged working population (age 35-49) is expected to grow by 5.6% by 2025, the overall working age population is expected to decline by 12% due to declines in the younger working age population (age 20 to 34) (-12%) and the older working age population (age 50-64) (-26%).[10]

Table 5. Population and Projected Growth by Age Range, Valdez-Cordova Census Area, 2020 and 2025

Age Range	2020		Projected 2025		Projected Change
	Number of Residents	% of Total	Number of Residents	% of Total	
Under 20	2,515	26.6%	2,471	26.7%	-1.7%
20-34	1,708	18.1%	1,509	16.3%	-11.7%
35-49	1,808	19.1%	1,909	20.6%	5.6%
50-64	2,140	22.6%	1,587	17.2%	-25.8%
20-64	5,656	59.8%	5,005	54.1%	-11.5%
65+	1,279	13.5%	1,774	19.2%	38.7%
Total	**9,450**	**100.0%**	**9,250**	**100%**	**-2.1%**

Source: ADOLWD and McKinley Research Group estimates.

[10] Population projections were not available for the Chugach Census Area.

By Race or Ethnicity

Three-quarters of people in the PWS region identify as White alone. About 8% of the population in the region identify as Alaska Native or American Indian alone, and 12% in the region identify the same way alone or in combination with other races.

Table 6. Race by Count or Total, Chugach Census Area, 2019 5-Year Estimates

Race or Ethnicity	Count	% of Total
One Race Alone		
White alone	5,441	76%
American Indian and Alaska Native alone	545	8%
Asian alone	371	5%
Native Hawaiian and Other Pacific Islander alone	58	1%
Black or African American alone	27	<0.5%
Some other race alone	187	3%
Two or more races	**506**	**7%**
Total	**7,135**	**100%**
Alaska Native or American Indian Alone or in Combination	*859*	*12%*
Hispanic or Latino	*442*	*6%*

Source: U.S. Census Bureau, American Community Survey 2019 5-year estimates, and McKinley Research Group estimates.

The table below shows the percentage of Alaska Native or American Indian (alone or in combination) residents by tribal group. Of Alaska Native and American Indian residents in PWS, 41% identify as Aleut, followed by Tlingit-Haida (15%), Inupiat (10%), and Athabascan (10%).

Table 7. American Indian or Alaska Native by Select Tribal Groupings, Prince William Sound, 2015-2019 5-Year Estimates

Tribal Group	Count	Percent
Alaska Native tribes:	**704**	**79.5%**
Aleut	365	41.2%
Tlingit-Haida	136	15.3%
Inupiat	91	10.3%
Alaskan Athabascan	88	9.9%
Yup'ik	24	2.7%
Alaska Native, tribes not specified	**47**	**5.3%**
American Indian	**135**	**15.2%**
Total	**886**	**100.0%**

Source: U.S. Census Bureau, American Community Survey, 2015-2019 5-year estimates.

By Educational Attainment

Among the population over age 25, 96% have at least a high school diploma or equivalent. Almost one-third of regional residents have a bachelor's degree or higher (31%); more than two-thirds have some college education (68%).

Table 8. Distribution of Educational Attainment of Population Aged 25 Years and Older, Prince William Sound, 2015-2019 5-Year Estimate

Educational Attainment	Count	Percent
No high school diploma	217	4.2%
High school graduate/General Education Diploma	1,433	27.7%
Some college or associate's degree	1,907	36.9%
Bachelor's degree	859	16.6%
Graduate or professional degree	753	14.6%
Total	**5,169**	**100.0%**

Source: U.S. Census Bureau, American Community Survey, 2015-2019 5-year estimates and McKinley Research Group estimates.

Labor Force

Labor force characteristics are available only for the Valdez-Cordova Census Area; however, these characteristics reflect trends in the Chugach Census Area labor force.

These characteristics describe the employment and unemployment of census area residents regardless of the location of their employment. The Valdez-Cordova Census Area's total labor force experienced small year-over-year changes in total numbers but ended 2019 at the same size as 2010. In 2019, labor force participation among residents aged 16 and above was 65%, reflecting a slight decrease in the working age population over the decade. The number of unemployed residents and the unemployment rates in the Valdez-Cordova Census Area generally declined over the past decade.

Table 9. Labor Force Characteristics, Valdez-Cordova Census Area, 2010-2019

Year	Employment		Unemployment		Total Labor Force Participation	
	Number	Rate	Number	Rate	Number	Rate*
2010	4,403	90.3%	473	9.7%	4,876	64.3%
2011	4,423	89.9%	498	10.1%	4,921	63.4%
2012	4,397	90.2%	480	9.8%	4,877	62.5%
2013	4,421	90.0%	489	10.0%	4,910	63.7%
2014	4,404	90.5%	461	9.5%	4,865	64.5%
2015	4,456	91.6%	408	8.4%	4,864	64.9%
2016	4,406	91.8%	396	8.2%	4,802	64.3%
2017	4,526	92.8%	352	7.2%	4,878	65.9%
2018	4,546	93.3%	326	6.7%	4,872	65.6%
2019	4,551	93.3%	326	6.7%	4,877	65.4%
% Change 2010-2019	**3.4%**	**3.3%**	**-31.1%**	**-30.9%**	**0.0%**	**1.7%**

Source: ADOLWD.
* Labor force participation rate based on labor force as a percentage of the population aged 16 and above.

In-Region Employment

The following employment statistics describe the jobs located within the Valdez-Cordova Census Area regardless of the employees' residency.

Wage and salary employment represents about 70% of jobs in the region; the remaining 30% represents self-employed individuals. Wage and salary employment generally increased over the last decade, with employment 6.1% higher in 2019 than in 2010. Self-employment varied over the same time period but ended in 2019 at about the same number of individuals as in 2010.

Table 10. Employment by Type, Valdez-Cordova Census Area, 2010-2019

Year	Wage and Salary Employment		Self-Employment		Total Employment	
	Number	% Change	Number	% Change	Number	% Change
2010	4,927	-	2,015	-	6,942	-
2011	4,990	1.3%	1,966	-2.4%	6,956	0.2%
2012	5,040	1.0%	1,937	-1.5%	6,977	0.3%
2013	5,016	-0.5%	1,998	3.1%	7,014	0.5%
2014	5,016	0.0%	2,035	1.9%	7,051	0.5%
2015	5,064	1.0%	1,874	-7.9%	6,938	-1.6%
2016	5,043	-0.4%	1,849	-1.3%	6,892	-0.7%
2017	5,154	2.2%	1,915	3.6%	7,069	2.6%
2018	5,170	0.3%	1,960	2.3%	7,130	0.9%
2019	5,229	1.1%	2,006	2.3%	7,235	1.5%
Change 2010-2019	**302**	**6.1%**	**-9**	**-0.4%**	**293**	**4.2%**

Source: Bureau of Economic Analysis.

In 2019, about 79% of total employment in the Valdez-Cordova Census Area was in the private sector; 21% were public sector employees of federal, state, local, and tribal governments or the U.S. military. Private sector employment accounted for total employment growth between 2010 and 2019, up 7.9% compared to 2010. Public sector employment declined by 8.0% over the same period.

Table 11. Employment by Private or Public Sector, Valdez-Cordova Census Area, 2010-2019

Year	Private Sector		Public Sector		Total Employment	
	Number	% Change	Number	% Change	Number	% Change
2010	5,329	-	1,613	-	6,942	-
2011	5,383	1.0%	1,573	-2.5%	6,956	0.2%
2012	5,377	-0.1%	1,600	1.7%	6,977	0.3%
2013	5,480	1.9%	1,534	-4.1%	7,014	0.5%
2014	5,534	1.0%	1,517	-1.1%	7,051	0.5%
2015	5,424	-2.0%	1,514	-0.2%	6,938	-1.6%
2016	5,409	-0.3%	1,483	-2.0%	6,892	-0.7%
2017	5,597	3.5%	1,472	-0.7%	7,069	2.6%
2018	5,642	0.8%	1,488	1.1%	7,130	0.9%
2019	5,751	1.9%	1,484	-0.3%	7,235	1.5%
Change 2010-2019	**422**	**7.9%**	**-129**	**-8.0%**	**293**	**4.2%**

Source: Bureau of Economic Analysis.

Wage and Salary Employment

Wage and salary employment varies seasonally in the Chugach Census Area, with employment highest between May and September due to high seasonal employment in the seafood processing sector. This measure of employment does not include sole proprietors and therefore does not reflect fish harvesting employment, which also varies seasonally.

Table 12. Wage and Salary Employment by Month, Chugach Census Area, 2019

Month	Employment
January	3,158
February	3,226
March	3,398
April	3,687
May	4,165
June	4,857
July	5,678
August	5,693
September	4,754
October	3,611
November	3,251
December	3,216
Annual Average	**4,058**

Source: ADOLWD.

Personal and Household Income

Valdez-Cordova Census Area residents had a total of $590.8 million in personal income in 2019. Salaries and benefits, including proprietors' income, accounted for 66% of personal income, followed by investment income (18%), and personal transfers, including the Permanent Fund Dividend (PFD) (16%).

Table 13. Total Personal Income by Component, Valdez-Cordova Census Area, 2019 ($ 2019 USD Millions)

Income Source	Amount	Percent of Total
Salaries and benefits (including proprietors' income)	$391.9	66.3%
Investments (including dividends, interest, and rents)	$107.0	18.1%
Personal transfer receipts (including PFD)	$91.9	15.6%
Total	**$590.8**	**100.0%**

Source: U.S. Bureau of Economic Analysis.

In 2019, total personal income in the Valdez-Cordova Census Area was 23% higher than in 2010. However, growth in personal income from 2010 to 2019 was lower among Valdez-Cordova Census Area residents compared to the statewide percentage.

Table 14. Percentage Change in Total Personal Income by Component, Valdez-Cordova Census Area and Alaska, 2010-2019

Income Source	Valdez-Cordova Census Area	Alaska
Salaries and benefits (including proprietors' income)	16.0%	21.3%
Investments (including dividends, interest, and rents)	38.9%	49.9%
Personal transfer receipts (including PFD)	36.7%	48.8%
Total Change	**22.5%**	**30.2%**

Source: U.S. Bureau of Economic Analysis.

The 2019 median and average household income in the Valdez-Cordova Census Area was $79,867 and $96,106, respectively. Median and average household income vary across the five PWS communities, from median income of $59,000 in Whittier to $94,625 in Cordova and average household income of $68,594 in Tatitlek to $112,521 in Cordova.

Table 15. Median and Average Household Income, Valdez-Cordova Census Area, 2019

Annual Household Income	Valdez-Cordova Census Area	Chenega	Cordova	Tatitlek	Valdez	Whittier
Median	$79,867	$74,375	$94,625	$65,000	$85,085	$59,000
Average	$96,106	$74,808	$112,521	$68,594	$98,125	$69,259

Source: U.S. Census Bureau, American Community Survey 2015-2019 5-year estimates.

Governance

Local Governments

PWS communities each have some form of local government but are not organized as a borough. Cordova, Valdez, and Whittier each have a city government providing public safety, harbor services, and others. The Cordova and Tatitlek tribal councils operate local utilities, administer community programs, and provide other services.

Table 16. Incorporation Type, Local and Tribal Government by Community

Community	Incorporation Type	Local Government	Federally Recognized Tribe
Chenega	Unincorporated	-	Chenega Bay IRA Council
Cordova	Home Rule City	City of Cordova	Native Village of Eyak
Tatitlek	Unincorporated	-	Native Village of Tatitlek (IRA)
Valdez	Home Rule City	City of Valdez	-
Whittier	2nd Class City	City of Whittier	-

Source: Alaska Department of Commerce, Community, and Economic Development.

City Taxes

The cities of Cordova, Valdez, and Whittier levy various property and sales taxes. The single largest category of assessed property value in the region is the Trans Alaska Pipeline System (TAPS) property within the City of Valdez. Oil and gas property tax rates are capped at 2% of assessed property value per the State of Alaska. The City of Valdez levies this tax on property related to TAPS, generating $39.0 million in tax revenue for the City of Valdez in FY2019.

Table 17. Property Assessed Value by Community, FY2019 ($ USD 2019 Millions)

Property Category	Cordova	Valdez	Whittier
Real and personal property	$214.8	$279.1	$87.2
Oil & gas property	$8.8	$1,951.6	$1.5
Total Assessed Value	**$223.6**	**$2,230.7**	**$88.6**

Source: Alaska Department of Revenue, Revenue Sources Book.

The cities of Cordova and Whittier levy sales taxes of 6% and 5%, respectively. Cordova also levies a 6% bed tax and car rental tax, generating a combined $281,683 in revenue in FY2019. Valdez also levies a bed tax of 8%, generating FY2019 revenue of $449,733.

Table 18. City Tax Revenue by Community, FY2019

Category	Cordova	Valdez	Whittier
Property Tax	**$2,447,089**	**$44,672,851**	**$615,409**
Sales and Other Taxes	**$3,425,849**	**$449,733**	**$997,252**
Sales tax	$3,127,512	-	$591,889
Bed tax	$274,789	$449,733	-
Car rental tax	$6,894	-	-
Other taxes	$16,654	-	$405,363
Total Tax Revenue	**$5,872,938**	**$45,122,584**	**$1,612,661**
Tax per Capita	*$2,489*	*$11,561*	*$6,582*

Source: Alaska Department of Revenue, Revenue Sources Book.

State of Alaska

The State of Alaska levies or dictates several taxes impacting PWS, including fisheries and commercial passenger vessel taxes.

The State levies Fisheries Business Tax on seafood processors (often referred to as the raw fish tax) based on the price paid to commercial fisheries. The tax is subject to revenue sharing, with half of tax revenue shared with qualifying municipalities. In state fiscal year (SFY) 2019, the City of Cordova received $1.2 million, Valdez received $409,339, and Whittier received $65,693 in Fisheries Business Tax sharing.

The State of Alaska levies a $34.50 per-passenger Commercial Passengers Vessel (CPV) Excise Tax on all cruise ships with 250 or more berths and remits $5.00 per passenger to each of a ship's first seven ports of call in Alaska. In FY2019, the City of Whittier received $871,855 in CPV tax sharing.

Table 19. State of Alaska Shared Tax Revenue by Community, FY2019

Tax Category	Cordova	Valdez	Whittier
Fisheries Business Tax	$1,233,099	$409,339	$65,693
Commercial Passenger Vessel Excise Tax	$0	$0	$871,855
Telephone Cooperative	$285,964	$178,131	$0
Electric Cooperative Tax	$12,054	$30,977	$3,578
Liquor Licenses	$8,900	$8,300	$5,100
Total Tax Revenue	**$1,540,017**	**$626,747**	**$946,226**

Source: Alaska Department of Revenue, Revenue Sources Book.

Federal Government

In 2019, about 217 U.S. military employees worked within the Valdez-Cordova Census Area. The Coast Guard is a primary driver of the military presence in Cordova, which is designated as a "Coast Guard City." With four permanently stationed cutters, Coast Guard Base Kodiak and Air Station Kodiak support the military personnel stationed in Cordova. The Coast Guard also operates Marine Safety Unit Valdez, providing oil spill response, inspections, and security services.

Livability Factors

Banking and Finance

Based on publicly available data, 15 lenders actively originated small business loans in the Valdez-Cordova Census Area in 2019, including banks with a physical location in the census area and others.[11] Lenders originated 227 small business loans to census-area businesses in 2019, with the majority of loans for $1 million or less. Loans were split about evenly between businesses with more than and less than $1 million in annual gross revenue.

Table 20. Small Business Loans Originated in Valdez-Cordova Census Area, 2019

Category	Number	Value
Loans by Amount		
$100,000 or less	211	$4,215,000
$100,001-$250,000	9	$1,444,000
Greater than $250,000	7	$2,425,000
Loans by Recipient Business Annual Revenue		
$1 million or less	119	$4,390,000
Greater than $1 million	108	$3,694,000
Total	**227**	**$8,084,000**

Source: Federal Financial Institutions Examination Council.

Education

Early Childhood Education

According to the Alaska Early Childhood Education Dashboard, the Valdez-Cordova Census Area's need for early childhood education services (day care and preschool) is greater than what is currently available.[12] PWS communities have varied levels of early childhood education offerings.

[11] Federal Financial Institutions Examination Council Community Reinvestment Act Data. Accessed 2021.
[12] thread. *Alaska's Early Childhood Education Dashboard.* 2020.

School districts in each community provide pre-kindergarten programs, including special education offerings in Valdez and Cordova. Valdez has two state-licensed child-care providers with a combined capacity of 48 children. Two state-licensed childcare programs in Cordova operate with a maximum capacity of 45 children.

Chenega, Tatitlek, and Whittier have few child-care resources with no state-licensed care facilities operating in those communities.

Chugachmiut operates a child-care program that assists families in finding child care in Cordova, Chenega, Tatitlek, and Valdez. Currently no Head Start or Early Head Start services are available in any of these communities. Cordova, Valdez, and Whittier are each served by an Infant Learning Program (ILP) offering support to families with children aged 3 and under.

Table 21. Number of Children Under 5 Years Old and Early Childhood Education Resources, 2018-2019

Community	Children Aged 5 and Under	Pre-Kindergarten Program	Number of State-Licensed Programs	State-Licensed Program Capacity
Chenega	5	Chugach School District	0	0
Cordova	116	Cordova City School District	2	45
Tatitlek	7	Chugach School District	0	0
Valdez	264	Valdez City School District	2	48
Whittier	16	Chugach School District	0	0

Source: ADOLWD, Alaska Department of Health and Social Services.

Public Schools

Three school districts operate in PWS: Chugach School District, Cordova City School District, and Valdez City School District.

The Chugach School District offers in-person pre-kindergarten (PK) through grade 12 instruction at community schools in Chenega, Tatitlek, and Whittier. The district also operates the FOCUS Homeschool open to students across Alaska and with physical locations in Anchorage, Valdez, and Fairbanks. In addition, the district operates the Voyage School Program, a short-term residential school in Anchorage where district middle and high school students learn career and technical skills.

The Cordova School District operates one elementary school serving PK through grade 6, and one combined junior and senior high school with grades 7 through 12. The district also offers an alternative Innovative Learning Program offering coursework online or through correspondence.

The Valdez City School District operates three schools, including one elementary, one middle, and one high school, as well as a homeschool program.

Table 22. Public School Enrollment and Overview by District, Academic Year 2019-2020[a]

School or District	Number of Students	Grades	Number of Teachers[b]	Year Built
Chugach School District	**515**	**-**	**19**	**-**
Chenega School	13	PK-12	3	1990
Tatitlek Community School	22	PK-12	2	1984
Whittier Community School	60	PK-12	6	1953
FOCUS Homeschool	420	PK-12	6	-
Cordova City School District	**339**	**-**	**24**	**-**
Mt. Eccles Elementary	194	PK-6	12	1955
Cordova Jr./Sr. High School	140	7-12	13	1966
Cordova School District Innovative Learning	5	K-12	1	2012
Valdez City School District	**728**	**-**	**53**	**-**
Hermon Hutchens Elementary	365	PK-5	25	1980
George H. Gilson Middle School	151	6-8	16	2014
Valdez High School	183	9-12	17	1976
Valdez Home School	29	PK-12	1	-

Source: Alaska Department of Education Data Center and Facilities.
Notes:
a. Academic Year 2019-2020 enrollment as of October 2019.
b. Number of teachers per district may vary from numbers of teachers in schools because one staff member may have multiple assignments in schools across the district or work in a district position.

Assessment Results

Alaska's Department of Education and Early Development (ADEED) conducts the Performance Evaluation for Alaska's Schools (PEAKS) assessment across all schools and district each year. The Language Arts and Math assessments are administered to students in grades 3 through 9.

In academic year 2018-2019, the percentage of students who scored as advanced or proficient in Language Arts across the three school districts was about the same or higher compared to students statewide. A higher percentage of Cordova City and Valdez City school district students were either advanced or proficient in math compared to the statewide percentage. The Chugach School District math proficiency was below the proficiency percentage (advanced and proficient combined) across the entire state.

Table 23. PEAKS Assessment by School District, Academic Year 2018-2019

Category	Chugach School District	Cordova City School District	Valdez City School District	Alaska
Language Arts				
Advanced or Proficient	*38.9%*	*52.8%*	*52.3%*	*39.3%*
Advanced	8.4%	20.3%	12.9%	10.2%
Proficient	30.5%	32.5%	39.4%	29.1%
Below or Far Below Proficient	*61.0%*	*47.2%*	*47.6%*	*61.0%*
Below Proficient	29.9%	24.5%	29.1%	26.8%
Far Below Proficient	31.1%	22.7%	18.5%	34.2%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Math				
Advanced or Proficient	*16.9%*	*46.0%*	*45.4%*	*35.8%*
Advanced	2.4%	5.5%	7.9%	6.2%
Proficient	14.5%	40.5%	37.5%	29.6%
Below or Far Below Proficient	*83.1%*	*54.0%*	*54.5%*	*64.4%*
Below Proficient	53.0%	39.3%	42.5%	42.5%
Far Below Proficient	30.1%	14.7%	12.0%	21.9%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Source: Alaska Department of Education and Early Development.
Note: Columns may not add to 100.0% due to rounding.

Due to school closures related to the coronavirus pandemic, PEAKS assessments were not performed in academic year 2019-2020.

Graduation Rates

In academic year 2018-2019, Cordova City and Valdez City school districts had a higher four-year high school graduation rate than the statewide average. The Chugach School District had a 64% four-year graduation rate in academic year 2018-2019, a lower rate than the statewide average of 80%.

Table 24. Four-Year High School Graduation Rates by School District, Academic Year 2018-2019

Category	Graduation Rate
Chugach School District	63.6%
Cordova City School District	96.6%
Valdez City School District	90.6%
State of Alaska Average	80.4%

Source: Alaska Department of Education and Early Development.

Post-Secondary Enrollment and CTE Placement

Of regional high school graduates in academic year 2018-2019, post-secondary enrollment the fall following graduation varied between 21% for Chugach School District students to a high of 61% for Cordova City School District students.

Table 25. Post-Secondary Enrollment Rates by School District, Academic Year 2018-2019

Category	Post-Secondary Enrollment Rate
Chugach School District	21.4%
Cordova City School District	61.1%
Valdez City School District	48.6%
Alaska	43.3%

Source: Alaska Department of Education and Early Development.

IN-REGION POST-SECONDARY OPPORTUNITIES

Based in Valdez, Prince William Sound College (PWSC) is a community campus affiliated with the University of Alaska Anchorage. Courses are offered in-person and through distance learning. The college primarily offers associate's degrees in fields such as nursing, outdoor leadership, and general studies, as well as certificate programs, including a Marine Service Technology occupational endorsement. PWSC has an extension site in Cordova collocated with the Cordova City School District through which high school students can receive college credits.

Funded by Alyeska Pipeline's Ship Escort Response Vessel System (SERVS), the Fishing Vessel Training program provides training for fishing vessels and crew to act as first responders to an oil spill. Trainings are available to contracted fishing vessels and offered throughout PWS and other communities in Southcentral Alaska. Instruction includes classroom material and on-water exercises.

Cost of Living

Alaska generally has a higher cost of living compared to the national average due to high transportation costs, among many factors. Based on data from the latest *Alaska Geographic Differential Study* (2008), PWS overall cost of living is an estimated 8% higher than that of Anchorage.[13] Several components of cost are significantly higher compared to Anchorage costs, including utilities (107% higher), food (31% higher), and fuel (25% higher).[14]

Arts Community

Art is of significant historical and ongoing importance within PWS, promoting artistic expression as a means of cultural rejuvenation and reinforcing the importance of region's natural environment. There are several art festivals and arts nonprofit organization throughout the region, such as:

- The Peksulineq Festival held in Tatitlek since 1994, also known as Cultural Heritage Week, provides an opportunity for students, elders, and instructors to share and learn Alaska Native arts, lifestyle, and the language of the Alutiiq people.

[13] https://doa.alaska.gov/dop/gds/

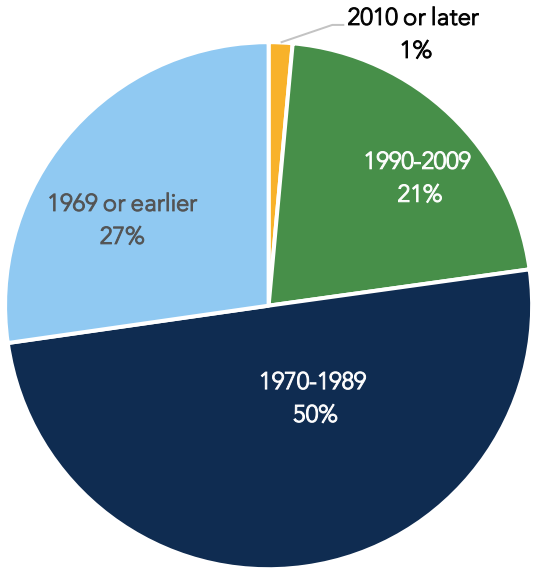
[14] Prince William Sound cost of living differential based on data from Cordova, Valdez, and Whittier. Cost of living is likely higher in Chenega and Tatitlek.

- In Chenega, there are activities to preserve, strengthen, enhance, and teach the Sugcestun language and cultural history through presenting and promoting traditional Alutiiq practices of religion, subsistence, education, and community values in a variety of print and digital media formats.
- The Cordova Fungus Festival emphasizes traditional subsistence practices teaching foraging, preparation, and cooking, as well as showcases the community's subsistence values artistically through various styles of painting and handicraft centered around the native plant life.
- The Copper River Salmon Jam in Cordova raises awareness of the region's rich resources and raises funds to support art opportunities with live music and a wild food cook off.
- The Richardson Highway Rendezvous Music and Art Festival is held annually in Valdez.
- The Last Frontier Theatre Conference hosted by the PWS College in Valdez since 1993 showcases theater production, allowing residents to grow as playwrights and performers, and drawing nonresidents to the community.
- The Whittier Art Association, a local non-profit formed in 1934, works in conjunction with local artists and schools throughout the year to host events where local art, done in a wide variety of mediums, are showcased in their gallery.

Housing

Of the approximately 3,200 housing units in PWS, 78% are occupied, and 22% are vacant. The region has an aging housing stock, with half of all units built between 1970 and 1989, and 27% built before 1970. High building costs and lack of available, skilled construction workers throughout the region are barriers to new housing construction. The region has a higher percentage of mobile homes (12%) than the rest of the state (4.8%).[15]

Figure 6. Housing Units by Construction Year, 2015-2019



Source: U.S. Census Bureau, American Community Survey 2015-2019 estimates.

[15] U.S. Census Bureau, American Community Survey 2015-2019 5-year estimates

Table 26. Housing Units Occupancy, PWS, 2015-2019 5-year Estimates

Occupancy	Housing Units	Percent
Occupied housing units	2,522	78%
Vacant housing units (including seasonally occupied)	702	22%
Total	**3,224**	**100%**

Source: American Community Survey, 5-Year Estimates.

High regional energy costs contribute to elevated housing costs, with Valdez-Cordova Census Area households spending about 30% more on home energy costs compared to the statewide average cost. Despite high energy costs, only about 20% of households in the Valdez-Cordova Census Area spend more than 30% of household income on housing costs (including utilities), which is lower than the statewide percentage of Alaskans who meet this cost-burdened threshold (30%).[16]

Public Safety

The Alaska State Troopers have limited presence in the region, with one wildlife officer each in Cordova and Valdez. The nearest Trooper posts are in Anchorage (closest to Whittier) and Glenallen (to Valdez). Chenega and Tatitlek are each served by the Village Public Safety Officer (VPSO) program, a division of the Alaska Department of Public Safety, with some funding from the state and additional funding from Chugachmiut. VPSOs are not law enforcement personnel but act as first responders and work in partnership with the Alaska State Troopers. Whittier has a small police department which also serves Girdwood within the Municipality of Anchorage. Due to its small size, crime data are not publicly available for arrests made by the Whittier Police Department. Cordova and Valdez both have small city police forces. In both Cordova and Valdez, the most common arrest charge is *driving under the influence of alcohol*.

Table 27. Number of Arrests by Top 10 Most Common Charges by City Police, 2015-2019 Averages

Charge	Cordova	Valdez
Aggravated Assault	5	3
Disorderly Conduct	2	5
Driving Under the Influence of Alcohol	10	28
Drug Possession	1	3
Drunkenness	2	*
Larceny	2	6
Liquor Law Violations	2	4
Vandalism	<1	4
Weapons Charges	*	2
Other Assaults	6	16
All Other Arrests	14	51
Total	**46**	**130**

Source: Alaska Department of Public Safety, *Alaska Crime Reports,* 2015-2019 and McKinley Research Group estimates.
* Not in top 10 charges for the city.

[16] Alaska Housing Finance Corporation. *Housing Market Assessment – Valdez-Cordova Census Area*. 2018.

Every PWS village and city has a fire department, professional or volunteer, that also includes people trained in emergency medical response.

Community Wellness

PWS has several health care providers operating in various communities. Chenega, Eyak (Cordova), Tatitlek, and Valdez are within the service area of Chugachmiut, a tribal health organization. Chugachmiut operates health clinics in Chenega and Tatitlek, offering primary, dental, behavioral health, and other specialty care. Chugachmiut also supports public health in the community by employing community health aides and practitioners.

While Cordova is within the Chugachmiut service area, the Native Village of Eyak operates the Ilanka Community Health Center in Cordova and offers primary and behavioral health care; it serves all Cordova residents as a Federally Qualified Health Center. Cordova is also served by one dental practice with one dentist, as well as the Cordova Community Medical Center for primary care, emergency medical, and behavioral health services. The medical center also offers acute and long-term patient care in Cordova.

Eastern Aleutian Tribes operates the Whittier Community Health Center and provides dental services through rotating dentists, and optical care in the same manner. As in both Tatitlek and Chenega, behavioral health aides offer support and some services to community members, supplemented by clinical behavioral health specialists.

The Providence Valdez Medical Center in Valdez is a critical access hospital, behavioral health center, long-term care facility, and physical, occupational and speech therapy center. The Valdez Public Health Center offers family planning services, immunizations, health education, school screenings, well-child exams, and sexually transmitted infection testing. There are two standalone dental practice in Valdez.

Economic Clusters

The manufacturing sector, mainly pertaining to seafood processing, represents the highest percentage of wage and salary employment in the Chugach Census Area (17% of employment); a significant portion of seasonal employment variation results from this sector. Transportation and warehousing accounts for an additional 14.6% of employment, followed by accommodation and food service (7.9%), retail trade (7.5%), and health care and social assistance (6.9%). Government jobs made up 27% of wage and salary employment in 2019.

Table 28. Wage and Salary Employment by Sector, Chugach Census Area, 2019

Sector	Average Annual Employment		Total Wages ($millions)	Average Annual Wages
	Number	% of Total		
Government Employment	**1,091**	**26.9%**	**$61.6**	**$56,495**
Federal	138	3.4%	$10.3	$74,998
State	259	6.4%	$14.6	$56,356
Local	694	17.1%	$36.7	$52,876
Private Sector Employment	**2,967**	**73.1%**	**$176.3**	**$59,419**
Agriculture, Forestry, Fishing and Hunting	88	2.2%	$4.1	$46,482
Mining, Quarrying, and Oil and Gas Extraction	27	0.7%	$3.0	$111,575
Utilities	(a)	(a)	(a)	(a)
Construction	101	2.5%	$8.4	$82,843
Manufacturing	671	16.5%	$33.6	$50,019
Wholesale Trade	(a)	(a)	(a)	(a)
Retail Trade	304	7.5%	$9.2	$30,300
Transportation and Warehousing	593	14.6%	$62.0	$104,503
Information	89	2.2%	$6.4	$72,014
Finance and Insurance	27	0.7%	$1.2	$46,434
Real Estate and Rental and Leasing	49	1.2%	$1.8	$37,482
Professional and Technical Services	68	1.7%	$3.8	$55,995
Management of Companies and Enterprises	67	1.7%	$6.6	$98,488
Administrative and Waste Services	119	2.9%	$9.7	$81,002
Educational Services	5	0.1%	$0.0	$5,243
Health Care and Social Assistance	281	6.9%	$12.8	$45,459
Arts, Entertainment, and Recreation	46	1.1%	$1.4	$29,936
Accommodation and Food Services	321	7.9%	$8.3	$25,683
Other Services and Unclassified	93	2.3%	$2.6	$27,568
Total	**4,058**	**100.0%**	**$237.9**	**$58,633**

Source: ADOLWD.
Note: a. Data are not reportable due to confidentiality.

The following sections further describe major economic sectors in PWS.

Seafood Harvesting, Production, and Processing

Harvesting

Commercial fishing is a key driver of the PWS economy. In 2019, 330 permit holders harvested more than 69 million pounds of fish and shellfish with a total ex-vessel value of $48 million. Harvest volume and value vary by year and, in 2018, regional residents landed 41 million pounds valued at $34 million. Species include salmon, halibut, black cod, crab, and others.

Table 29. Prince William Sound Resident Commercial Fishing Harvest, 2018 and 2019

Community	2018			2019		
	Active Fishermen	Pounds Landed	Est. Gross Earnings	Active Fishermen	Pounds Landed	Est. Gross Earnings
Cordova	288	35,125,061	$29,305,333	292	56,877,195	$40,616,006
Valdez	23	4,599,711	$3,263,645	25	11,205,602	$5,405,370
All Other Communities	15	1,483,764	$2,261,091	13	1,413,248	$2,134,729
Total	**326**	**41,208,536**	**$34,830,069**	**330**	**69,496,045**	**$48,156,105**

Source: Commercial Fisheries Entry Commission.

Salmon fisheries accounted for 96% of Valdez-Cordova Census Area residents' volume and 86% of ex-vessel earnings in 2019. Pink salmon generally make up the highest share of salmon harvest volume by regional residents, with volumes significantly greater in odd-numbered years.

The region's natural salmon runs are enhanced by five salmon hatcheries in PWS, with their pink, chum, and sockeye hatchery programs among Alaska's largest.

Table 30. Prince William Sound Salmon Harvest, Pounds and Ex-vessel Value, 2016 to 2019

	2016	2017	2018	2019
Pounds Harvested				
Chinook	224,389	291,534	133,372	362,774
Chum	20,354,049	38,715,533	27,448,428	31,631,251
Coho	4,297,748	4,292,320	4,406,800	4,238,190
Pink	47,214,829	180,974,516	86,015,958	160,881,529
Sockeye	10,383,968	8,048,818	5,959,556	13,911,962
Ex-vessel Value				
Chinook	$1,394,808	$2,232,133	$1,721,638	$3,223,318
Chum	$12,929,117	$29,568,379	$25,392,697	$18,099,898
Coho	$6,377,380	$6,435,265	$7,127,560	$5,189,863
Pink	$22,590,732	$75,695,915	$43,929,863	$55,866,762
Sockeye	$24,259,634	$21,740,757	$15,107,437	$38,346,949

Source: Alaska Department of Fish and Game.
Note: 2020 figures are preliminary.

Processing

The seafood processing industry is a key driver of the PWS economy. Based on Valdez-Cordova Census Area data, food product manufacturing, which includes seafood processing, accounted for about 12% of all wage and salary employment in the census area in 2019.

Table 31. Food Manufacturing Wage and Salary Employment by Month, Valdez-Cordova Census Area, 2019

Category	Employment
January	73
February	87
March	139
April	235
May	430
June	1,060
July	1,947
August	1,879
September	1,058
October	222
November	78
December	99
Annual Average	**672**

Source: ADOLWD.

Several seafood processors operate in PWS, including six processing facilities in Cordova, four in Valdez, and two in Whittier. Salmon species account for the highest proportion of seafood processed in the region with production of 127 million pounds of salmon in 2019. That number is up from 96 million in 2018 due to the two-year cycle of pink salmon. On a per pound basis, chinook salmon had the highest value at $17.45 per pound in 2019, followed by sockeye ($6.53 per pound) and halibut ($6.33 per pound).

Table 32. Prince William Sound Processor Seafood Production by Species, 2018 and 2019

	2018		2019		
	Pounds	Wholesale Value	Pounds	Wholesale Value	2019 $/pound
Salmon					
Chinook	1,556,329	$2,883,470	243,948	$4,257,671	$17.45
Sockeye	5,324,825	$24,843,792	8,916,231	$58,251,542	$6.53
Chum	19,523,268	$55,026,852	21,737,796	$53,652,335	$2.47
Pink	65,447,701	$135,601,432	93,649,714	$162,251,331	$1.73
Coho	4,478,581	$13,885,446	2,543,904	$8,408,894	$3.31
All salmon species	**96,330,706**	**$232,240,991**	**127,091,594**	**$286,821,773**	**$2.26**
Other Species					
Halibut	396,063	$2,767,279	416,361	$2,635,986	$6.33
Black cod	399,813	$3,178,787	317,759	$1,779,322	$5.60
Pacific cod	134,124	$268,599	95,560	$264,511	$2.77

Source: Alaska Department of Fish and Game, *Commercial Operators Annual Report*. Compiled by McKinley Research Group.

Mariculture

With abundant coastal resources, PWS is positioned to engage in Alaska's growing mariculture industry. Active mariculture operations in the region include two oyster farms and four "authorized and active" kelp farms, all in the Cordova area. Another two oyster and six kelp farm applications are currently under review by the State of Alaska.

Table 33. Prince William Sound Aquatic Farming Projects, Current Status

Business Name	Application Year	Acres	Products	Status
Sustainable Alaska Farms Enterprise, LLC	2017	24.41	Pacific Oyster	Authorized and Active
Simpson Bay Oyster Company	2017	14.38	Pacific Oyster	Authorized and Active
Icy Bay, LLC	2018	44.94	Pacific Oyster	Under Review
Native Village of Eyak	2020	114.78	Pacific Oysters, Bull Kelp	Under Review
Royal Ocean Kelp Co.	2019	2.9	Ribbon Kelp, Sugar Kelp	Authorized and Active
Sven's Wild Seafood Co.	2020	21.7	Ribbon Kelp, Sugar Kelp	Authorized and Active
Blue Green Enterprises	2020	21.7	Ribbon Kelp, Sugar Kelp	Authorized and Active
Noble Ocean Farms, LLC	2020	22.04	Ribbon Kelp, Sugar Kelp	Authorized and Active
Next Level Fisheries, LLC	2020	22.0	Ribbon Kelp, Sugar Kelp	Under Review
Sea Garden, LLC	2020	22.04	Sugar Kelp, Ribbon Kelp	Under Review
Andersen Island, LLC	2020	22.04	Sugar Kelp, Ribbon Kelp	Under Review
Alaska Deep Seas, LLC	2020	22.04	Sugar Kelp, Ribbon Kelp	Under Review
Hartney Bay Kelp Company	2020	15.04	Sugar Kelp, Ribbon Kelp	Under Review

Source: Alaska Department of Natural Resources.

Visitor Industry

Tourism is a vital component of PWS's economy, with tens of thousands of visitors traveling to the region on an annual basis. Visitation is centered in Whittier, Valdez, and Cordova, with traffic, travel modes, and activities varying greatly among these communities. The Cordova Chamber of Commerce, Valdez Convention and Visitors Bureau, and the Whittier Chamber of Commerce primarily market PWS communities as a visitor destination.

In summer 2016, the last time all visitor markets were measured, Whittier welcomed 234,000 nonresident visitors, including 130,000 cruise passengers. Cordova had 9,000 nonresident visitors and Valdez had 71,000 visitors, including 5,000 cruise visitors, though not through a direct port call. By 2019, Valdez welcomed direct cruise ship calls, increasing the size of the cruise visitor market to 12,400.

Table 34. Prince William Sound Visitor Estimates, Summer 2016

Category	Cordova	Valdez	Whittier
Cruise visitors	-	5,000	130,000
Other visitors	9,000	66,000	104,000
Estimated Market Size	**9,000**	**71,000**	**234,000**

Source: Alaska Visitor Statistics Program.

Popular activities in the region include glacier cruises, sportfishing, hiking, heli-skiing, and wildlife viewing, among others. Visitors to the region most reported participating in camping (66% of Valdez visitors), fishing (44% of Valdez visitors), wildlife viewing (42% of Valdez and 17% of Whittier visitors), hiking (34% of Valdez visitors), and day cruises (31% of Valdez and 22% of Whittier visitors).[17]

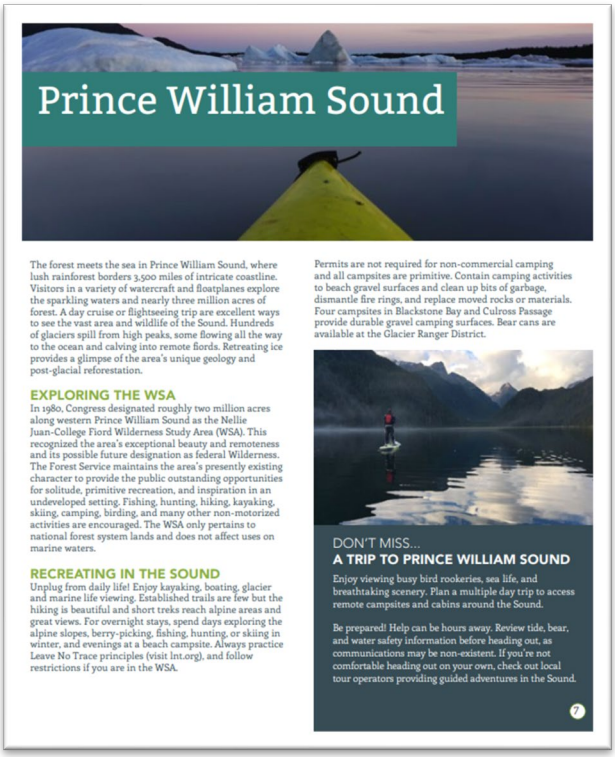
Cruise Industry

Whittier is an embarkation/disembarkation port for large cruise ships. In 2019, 194,000 cruise ship passengers either started or ended their Alaska cruise at Whittier, representing 15% of the statewide total. Cruise passengers travel to and from Whittier via motorcoach or train. Valdez also welcomes direct calls from cruise ships, representing 13 port calls and 12,400 passengers in 2019.

Sportfishing

Sportfishing is a significant component of the region's visitor industry. Fishing enthusiasts are drawn to the region's abundant marine fishing opportunities on the protected waters of PWS and the nearby Gulf of Alaska and on-road accessed drainages, including those of the Copper River Delta. In 2019, about 1,300 out-of-state residents purchased sportfish licenses from Cordova vendors, along with nearly 600 Alaska residents. In 2019, 2,870 out-of-state visitors purchased sportfish licenses from Valdez vendors, along with about 1,500 Alaska residents (which includes both Valdez and other Alaska residents). These figures represent only a portion of all sportfishermen as many licenses are purchased online.

Figure 7. U.S. Forest Service Chugach National Forest Promotional Materials



Source: U.S. National Forest Service.

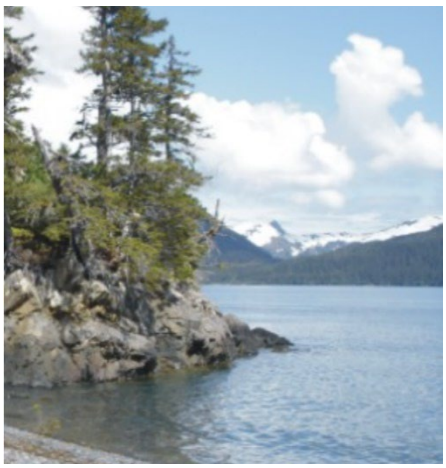
[17] McDowell Group, *Alaska Visitor Statistics Program, Summer 2016.*

Events and Meetings

Opened in 2014, the Cordova Center is a meeting facility which houses a theatre, historical museum, and community library and attracts business and convention travelers to the region.

PWS communities host several annual events that draw visitors, including the Valdez Ice Climbing Festival, snowmachine races, Silver Salmon and Halibut fishing derbies, the Copper River Delta Shorebird Festival, the Iceworm Festival, and the Copper River Salmon Jam.

Figure 8. Decision Point State Marine Park



Source: Alaska Department of Natural Resources, Division of Parks & Outdoor Recreation.

National and State Park Assets

The region's tourism assets include the PWS and Copper River Delta sections of the Chugach National Forest. The U.S. Forest Service maintains cabins and campgrounds, hiking trails, and the Crooked Creek Information Site near Valdez.

The State of Alaska also maintains several park facilities in the region. The Blueberry Lake and Worthington Glacier state recreation sites are located north of Valdez and offer camping, fishing, and hiking opportunities.

The region is home to about 15 state marine parks, a system of parks providing boating opportunities and protected anchorages. Public-use cabins are available at Shoup Bay State Marine Park (near Valdez) and Decision Point State Marine Park (near Whittier).

Oil and Gas

Alyeska Pipeline Service Company, operator of the Trans Alaska Pipeline System (TAPS), is one of the largest employers in the PWS region. The Valdez Marine Terminal is the terminus of TAPS, the 800-mile oil transportation system running from Alaska's North Slope to PWS. Oil is loaded for marine transport to market at the Valdez Marine Terminal, which has capacity to store 6.6 million barrels of oil. About 270 Alyeska Pipeline employees worked in Valdez in 2016, nearly 40% of the Valdez-Cordova Census Area's transportation and warehousing sector employment in that year.

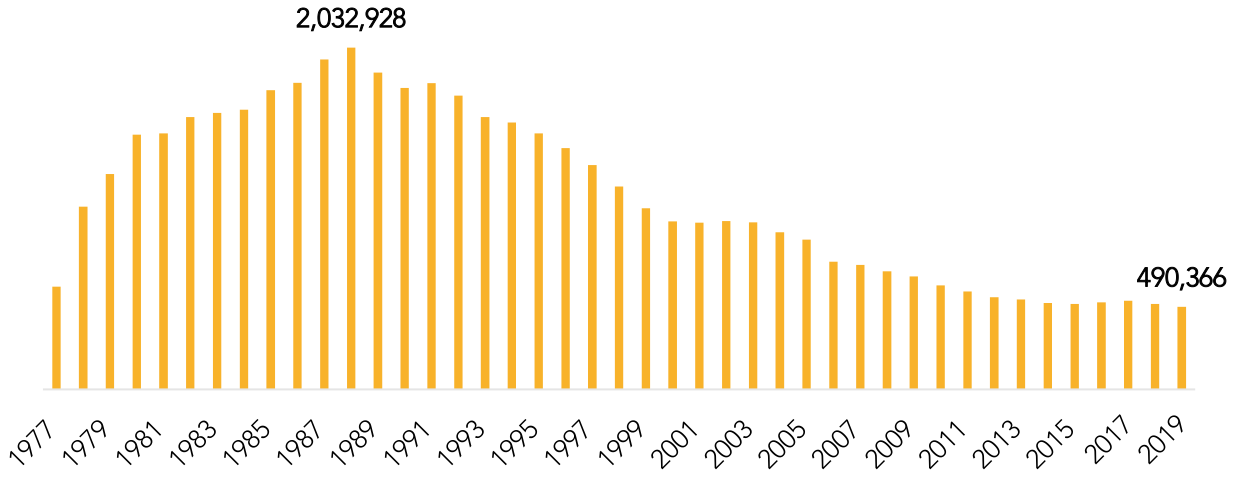
Figure 9. Valdez Marine Terminal



Source: Alyeska Pipeline Services Company.

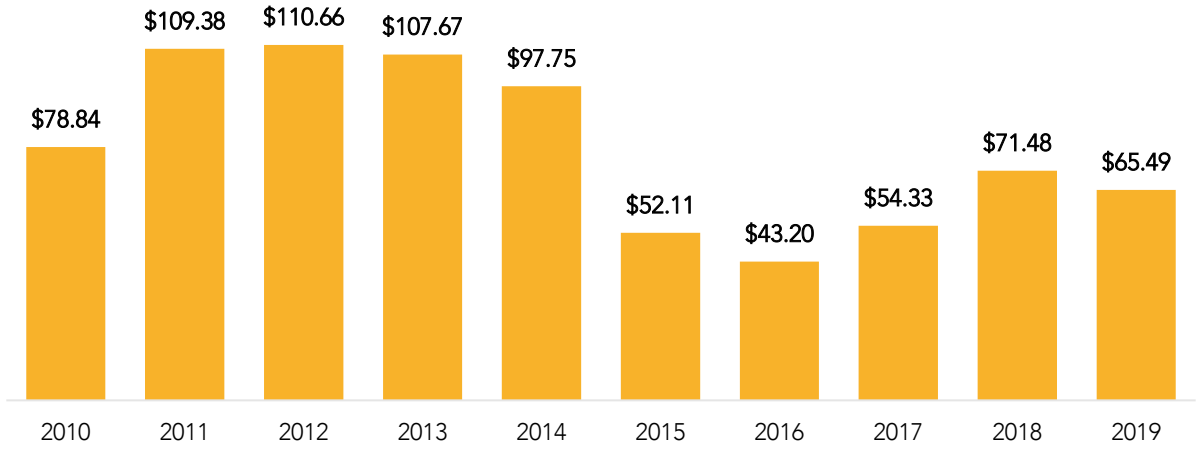
TAPS throughput peaked at more than 2 million barrels per day in 1988. Throughput has steadily declined over the past three decades, with average daily throughput of less than 500,000 barrels per day in 2019. Average annual oil prices have been volatile over the past ten years, reaching decade highs of $110.66 per barrel in 2012 before falling to $43.20 in 2016.

Figure 10. TAPS Throughput in Average Barrels per Day, 1977-2019



Source: Alyeska Pipeline Service Company.

Figure 11. Annual Average Alaska North Slope West Coast Spot Price, 2010-2019



Source: Alaska Department of Revenue, Tax Division.

Marine Transportation and Support Services

Marine transportation plays a central role in the industries active in the PWS region. Transportation of oil and spill response contribute to the marine transportation sector. Through subsidiary and contracted companies, oil companies transport crude via oil tankers from Valdez to refineries along the West Coast. Alyeska Pipeline Company funds SERVS to provide oil spill prevention and response services in PWS. The company contracts with Edison Chouest to provide oil tanker escort and spill prevention services related to the Valdez Marine Terminal.

Much of the seafood processed in the region is also transported from PWS via marine shipping. Cargo, including seafood products, are transported to and from the region via barge and rail barge by Alaska Marine Lines (AML) and Samson Tug and Barge Inc.

Infrastructure Related to Economic Development

Exxon Valdez Oil Spill Trustee Council and Settlement

The Exxon Valdez Oil Spill Trustee Council (EVOS) was formed in the aftermath of the Exxon Valdez Oil Spill and subsequent financial settlement. The council oversees restoration of the ecosystem impacted by the oil spill and administers the $900 million in civil settlement funds awarded. Council activities include restoration projects and scientific research and monitoring.

The State of Alaska was also awarded settlement funds related to civil and criminal settlements resulting from the spill. The State granted funding to Chenega and Tatitlek for oil-spill response facilities and for mariculture projects in these communities, among other projects.

Transportation

The State of Alaska, local governments, and the Alaska Railroad Corporation (ARRC) are each responsible for components of PWS's transportation system. The following sections describe various aspects of the regional system.

Ports and Harbors

With three of five communities in the region unconnected to Alaska's road system, the PWS region is highly dependent on marine transportation. Each community in the PWS region has a dock facility to receive Alaska Marine Highway System vessels and barge service.

Two of the region's ports – Valdez and Whittier – are among the few ice-free ports with links to Alaska's road system. Owned by ARRC, the Port of Whittier is also connected to Alaska's railroad system. The "aquatrain" rail barge, operated by Foss Maritime, receives shipments from Prince Rupert, B.C., three times a month, year-round. AML also provides weekly rail barge service to Whittier year-round. Containerized freight delivered to Whittier is redistributed to Cordova, Valdez, and other communities via barge and to Anchorage and on-road communities via rail or truck.

Under City of Valdez ownership, the Valdez Container Terminal is served by Samson Tug and Barge and AML, among others. The Terminal facilities are currently undersized for predicted shipping demand.[18] The port is especially active in summer months during the seafood harvest and processing season. In-bound shipments include supplies trucked to other communities along the Richardson Highway. The Valdez Marine Terminal has capacity to store 6.6 million barrels of oil. In 2019, crude petroleum shipped from the terminal accounted for more than 95% of all waterborne freight transported through PWS, including inbound and outbound cargo. Valdez also has a Small Boat Harbor and New Boat Harbor, opened in summer 2019.

The City of Cordova operates the port and small boat harbor, served by AML year-round. With three large docks and small boat harbor capacity for 727 vessels, the Cordova port and harbor are important assets related to seafood harvesting and shipping. The dock facility is also used for moorage of a U.S. Coast Guard

[18] Port of Valdez. *Valdez Comprehensive Waterfront Master Plan.* 2019.

buoy tender home-ported in Cordova. Several port and harbor-related projects are among the City of Cordova's priority capital improvement projects, including port and harbor upgrades and construction of a large vessel maintenance facility. In 2020, Cordova applied for a State of Alaska Harbor Facility Grant for repair and replacement of the Cordova Small Boat Harbor, scoring highest on the Department of Transportation & Public Facilities evaluation for FY2022.

Chenega has a small boat harbor and ferry dock and receives fuel deliveries from Valdez. Tatitlek has a ferry dock and City Dock, which provides a staging area for oil spill response operations.

Table 35. Prince William Sound Waterborne Freight Volumes, Short Tons, 2019

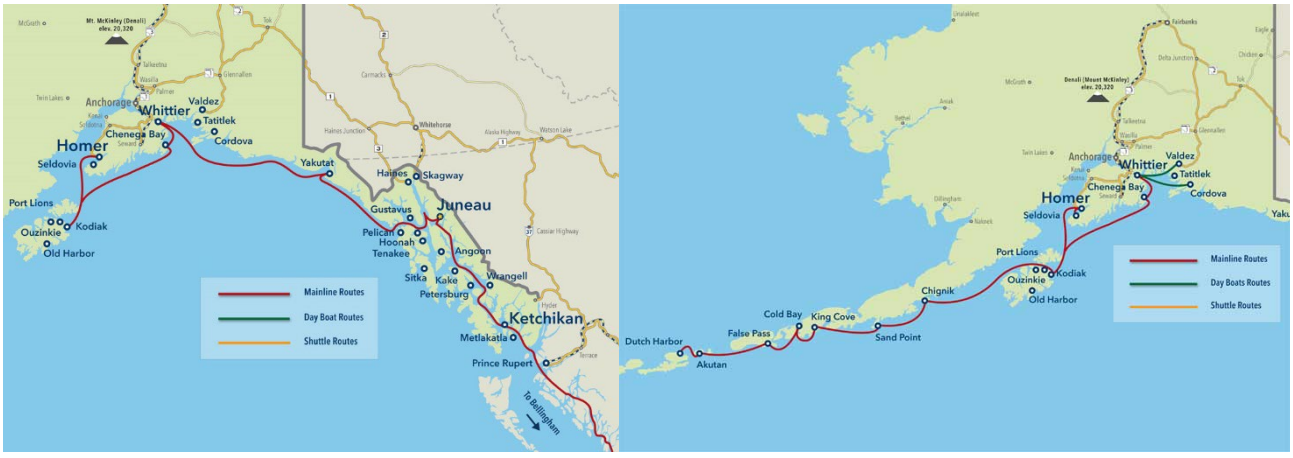
Category	Crude Petroleum	All Other Products	Total
Outbound Freight	24,704,918	570,163	25,275,081
Inbound Freight	-	625,906	625,906
Local Freight	-	71	71
All Freight	**24,704,918**	**1,196,140**	**25,901,058**

Source: U.S. Army Corps of Engineers Waterborne Commerce data compiled by McKinley Research Group.

Alaska Marine Highway

PWS communities are included in the Alaska Marine Highway System's (AMHS) "Southwest System" with varying service levels: Whittier and Chenega Bay are included in the cross-gulf route connecting Southeast and Southwest Alaska, and day boat routes connect Whittier to Valdez, Cordova, and Tatitlek. The day boat route connecting Cordova, Tatitlek, and Valdez to Whittier brings passengers to Whittier every-other day. Chenega has one departure to Whittier and one arrival from Whittier each month.

Figure 12. Alaska Marine Highway System, Cross Gulf and Southcentral/Southwest Routes



Source: Alaska Marine Highway System.

Declining AMHS funding has contributed to fewer sailings over the past five years. Between 2015 and 2019, regional passenger embarkations from PWS communities declined by nearly 50%. Passenger embarkations decreased most in Cordova (52% down) and Valdez (48%). In 2019 and 2020, due to budget constraints, Cordova lost its winter ferry service.

Table 36. Alaska Marine Highway System Passenger Embarkations by Port, PWS Region, 2015-2019

Category	Chenega	Cordova	Tatitlek	Valdez	Whittier	Regional Total
2015	145	10,430	70	9,801	16,847	37,293
2016	95	8,491	98	7,020	13,955	29,659
2017	108	7,622	106	6,590	12,590	27,016
2018	139	7,541	111	6,537	12,648	26,976
2019	147	4,992	107	5,116	9,908	20,270
% Change 2015-2019	**+1%**	**-52%**	**+53%**	**-48%**	**-41%**	**-46%**

Source: Alaska Department of Transportation and Public Facilities, McKinley Research Group calculations.

Air Transportation

Air service is another important component of the PWS region's transportation infrastructure given the lack of road connections to the region. All communities in the region have an airport or runway, which are generally publicly owned.

The largest of these airports is Cordova with a runway of 1,125,000 square feet, making it the region's most prominent. Flights connect from Anchorage and Yakutat via Alaska Airlines. The second largest airport in the region, the Pioneer Field Airport, exists just four miles outside of Valdez and is reached via Anchorage flying with Ravn Alaska. There is no scheduled flight service between Cordova and Valdez so passengers or cargo must travel through Anchorage or with a private charter.

Chenega and Tatitlek are served by one scheduled air carrier with service to Chenega weekly and Tatitlek twice a week. Outside of Cordova and Valdez, communities in the region are most accessible by private charter, the Alaska Marine Highway System, or in the case of Whittier, by road. Each of the communities has float or seaplane access.

Roads and Highways

Two communities in the region, Valdez and Whittier, are connected to Alaska's road system. Valdez is connected via the Richardson Highway, which intersects with the Glenn Highway near Glennallen. Whittier is connected to the Seward Highway via the Anton Anderson Memorial (Whittier) Tunnel, a one-lane tunnel shared by trains and vehicles. Passage through the tunnel is allowed one direction at a scheduled time.

Alaska Railroad

PWS is linked to Alaska's railway system, running from Fairbanks to Seward, via Whittier. As described above, rail barges ship freight to Whittier for further distribution throughout the state. ARRC also transports passengers from Whittier to Anchorage and other Alaska destinations, connecting cruise ship passengers to other statewide destinations.

While still speculative, in 2019, a Presidential Border Crossing Permit was submitted to further the development of a 1,500-mile privately funded rail connection between Delta Junction, Alaska, and Fort McMurray, Alberta (often referred to as the A2A project). A rail spur to Valdez is in consideration.

Energy

Most households in PWS (73%) use fuel oil for home heat. Wood is another source of home heat for 15% of households. Whittier is within the ENSTAR Natural Gas service area, accounting for nearly all households using this heating type in the region.

The cost of heating oil can be a significant driver of high cost of living in communities reliant on this heating source. In mid-2019, retail heating oil prices ranged from $3.26 to $5.90 per gallon across the region.

Table 37. Occupied Housing Units by Home Heating Type, 2015-2019 5-Year Estimates

Heating Type	Percent of Total
Heating oil	72.8%
Wood	14.7%
Utility Gas	4.8%
Other heating type	7.7%
Total	**100.0%**

Source: U.S. Census Bureau, American Community Survey.

No unified electrical grid serves the PWS communities, and much of the region relies on diesel fuel for electrical power generation. Hydropower supplements diesel fuel electricity generation in Valdez and Cordova, and Whittier is connected to the broader Anchorage electrical grid.

Residential and small commercial electricity rates per kilowatt hour (kWh) ranged between $0.20 (Whittier) and $0.92 (Tatitlek) in FY2020. The statewide Power Cost Equalization (PCE) program subsidizes fuel-based electricity generation costs in rural Alaska. In FY2020, average PCE payments per eligible customer in the PWS region ranged from $388 to $1,926.

Table 38. Residential Electricity Rates and PCE Subsidy by Community, FY2020

Community	Residential Rate per kWh Before PCE	PCE Level per kWh	Effective Residential Rate per kWh	Average Annual PCE Payment Per Eligible Customer
Chenega	$0.67	$0.36	$0.31	$1,168
Cordova	$0.35	$0.07	$0.28	$388
Tatitlek	$0.92	$0.54	$0.38	$1,926
Valdez	$0.30	-	$0.30	-
Whittier	$0.20	-	$0.20	-

Source: Alaska Energy Authority, Chugach Electric, Copper Valley Electric.

Telecommunications

Several telecommunications providers serve communities within PWS, offering internet access, wireless/cellphone, and telephone. Based on Federal Communications Commission (FCC) data, 84% of Valdez-Cordova Census Area residents have access to terrestrial broadband at speeds of at least 25 megabits per second (Mbps) download/3 Mbps upload, about the same percentage as the statewide population. A lower percentage of the Valdez-Cordova Census Area population has access to the faster internet speeds (100 Mbps download/10 Mbps upload) compared to the statewide percentage.

Table 39. Percentage of Population with Broadband Internet Providers by Speed Tier, 2018

Community	Valdez-Cordova Census Area	Alaska
10/1 Mbps	90%	93%
25/3 Mbps	84%	85%
100/10 Mbps	44%	79%

Source: Federal Communications Commission.

Several communities have fiber-optic broadband internet access through providers, including Cordova Telephone Cooperative, GCI, and Copper Valley Telecom. Projects creating new network linkages within the region and to other Alaska communities are newly completed or currently underway. In fall 2020, Copper Valley Telecom completed a "Fiber to the Home" project connecting Tatitlek to the Valdez network. Cordova Telephone Cooperative received a Federal USDA ReConnect grant in 2019 to connect the provider's fiber optic network to Yakutat through a series of remote wireless towers.

The FCC recommends school districts maintain 1 Mbps of bandwidth per enrolled student to enable digital learning. Two of the three school districts operating in the PWS region meet this bandwidth per student recommendation.

Table 40. School District Internet Bandwidth per Student, 2020

School District	Bandwidth per Student
Chugach School District	5.4 Mbps
Cordova City School District	460 kbps
Valdez City School District	1.6 Mbps
FCC recommended bandwidth	1 Mbps

Source: Connect K-12.

Water, Sewer, and Solid Waste

Water, sewer, and solid waste services are provided by city or tribal governments in each community, as described in the table below.

Table 41. Water and Wastewater Systems by Community

Community	Operator	Water and Wastewater System	Solid Waste
Chenega	Chenega IRA Council	Community Water System, Surface Water	Class III Community Landfill
Cordova	City of Cordova	Class 2 Water Distribution, Wastewater Treatment and Collection Systems	Class II Municipal Solid Waste Landfill
Tatitlek	Native Village of Tatitlek	Community Water System, Surface Water	Class III Community Landfill
Valdez	City of Valdez	Class 1 and 2 Water Distribution Systems, Class 2 Wastewater Collection and Treatment Systems	Class II Municipal Solid Waste Landfill and Inert Monofill Construction and Demolition Landfill
Whittier	City of Whittier	Small Untreated Water System, Large Scale Septic	Alaska Waste Management on contract

Source: Alaska Department of Environmental Conservation.

Chapter 3: SWOT Analysis

This chapter discusses the SWOT analysis conducted by PWSEDD with input from the PWS CEDS Strategy Committee and stakeholders in the context of the information presented in *Chapter 2: Summary Background*.

To meet PWS's overall economic development potential, the borough will need to leverage its strengths and mitigate its weaknesses to take advantage of existing and future opportunities and address outside threats. The SWOT analysis addresses the question, *Where is the PWS region now in achieving its economic development potential?* The table summarizes factors identified to answer that question. It is followed by a summary of each of the four SWOT analysis components.

Prince William Sound SWOT Summary

Strengths	Weaknesses	Opportunities	Threats
• Marine/port/pipeline infrastructure in place • Environmental stewardship • Airport infrastructure • Tribal communities and ANCSA corporate values • U.S. Coast Guard/defense presence • Cultural background & history • High secondary school graduation rate • State University community campus • Family-friendly communities • Scenic environment (natural beauty/ unique wilderness) • Natural resources – minerals, forestry, water • Environmental stewardship • Strong arts community • Marine resources – fisheries, aquaculture, and others	• Lack of quality, affordable housing • Transportation challenges/inaccessibility/ interconnectivity due to remote geography, infrastructure, and weather • Lack of developable land • Cost of living • Insufficient broadband infrastructure • Aging infrastructure • High utility costs • Small population base • Lack of available, skilled workforce • Lack of economic diversity/ seasonal economies • Competing for visitor market/ recreational market	• Port infrastructure improvements • Expanded visitor industry offerings – cultural and wilderness/outdoor recreation • Internet/broadband infrastructure improvement • Potential for regional ferry system • Gas pipeline • Gateway to the Arctic • Rail development (A2A) • Alternative energy – hydro, solar • Maritime industry training • Remote worker attraction • Mariculture • Fisheries/ hatchery development • Enhanced arts community • Food manufacturing industry development • Carbon capture opportunities • Increased mineral exploration (i.e., gravel)	• State fiscal support for ferry system • Climate change • Earthquake/tsunami/land slide risk • State fiscal support for education continuum • National and international economy/ confidence affecting tourism market • Oil and gas commodity prices/production affecting TAPS through-put • Seafood commodity prices • Health of fishery • Lengthy and costly permitting process • Regional/state competition for resources and tourism • Pandemics

Overview

Strengths – Existing Internal Advantages

PWS's strengths include its rich culture heritage, natural resources, marine resources, education infrastructure, and scenic environment. Components of these strengths include:

- *Marine/port/pipeline infrastructure in place* – As all communities are coastal, the region has existing port, dock, and harbor infrastructure. The TAPS terminus is in Valdez.
- *Environmental stewardship* – The ecology of PWS is highly valued and the aftermath of the *Exxon Valdez* oil spill strengthened the protective systems.
- *Airport infrastructure* – Most communities are accessible by air, except for Whittier.
- *Strength of tribal communities and ANCSA corporate values* – Strength of the Alaska Native corporations and their private land ownership, and Tribal sovereignty entails a unique ability and responsibility to protect tribal lands and self-government, giving structure to and supporting success of communities in developing infrastructure critical to economic and community development.
- *U.S. Coast Guard/defense presence* – The U.S. Coast Guard located in Cordova provides maritime safety and support for personal, fishing, and maritime vessels.
- *Cultural background & history* – The region's rich cultural history supports self-sufficiency and resiliency in an environment of climate and social change.
- *High secondary school graduation rate* – With higher than state-average graduation rates in Cordova City and Valdez City school districts, high school graduates have opportunities for vocational and academic post-secondary education.
- *State University community campus* – University of Alaska's PWSC in Valdez and Cordova offers regional in-class and distance learning for regional residents.
- *Family-friendly communities* – Crime rates are low throughout the region and the lifestyle supports family time and activities.
- *Scenic environment (natural beauty/unique wilderness)* – PWS is renowned for its scenic beauty and wilderness and is attractive for both recreation and visitor uses.
- *Natural resources* – The region is rich in mineral, forest, and water resources.
- *Marine resources – fisheries, aquaculture, and others* – The region has a diverse array of marine resources that support a seafood industry and further development of aquaculture industries.
- *Strong arts community* – Organizations, such as the Cordova Arts and Pageants, support education, understanding, and appreciation of visual and performing arts community. The Alaska Native culture of the region has a rich arts and crafts heritage.

Weaknesses – Existing Internal Disadvantages

PWS's economic development weaknesses stem from lack of connectivity, including transportation and internet infrastructure, aging infrastructure and affordable quality housing, and high-cost burdens for business and residents. Components of these weaknesses include:

- *Transportation challenges/inaccessibility/ interconnectivity due to remote geography, infrastructure, and weather* – The region lacks consistent and reliable ferry service between communities, and there are no roads or air service that connect all communities within the region. Weather also impacts safe and consistent transportation options for residents and visitors. Additionally, there is not a well-established network of collaboration to support organizations and communities on regional economic development issues.

- *Lack of quality, affordable housing* – Housing stock throughout the region is aging and expensive to rent, own, or build.

- *Lack of developable land* – While Alaska Native corporations have private land available for development, access to the land can be problematic due to geography and federal policy.

- *Cost of living* – High cost of living, including high housing costs, transportation, consumables, and energy, contribute to higher wage requirements and costs of doing business.

- *Insufficient broadband infrastructure* – High speed broadband is not available consistently throughout the region and often impacts education, business, and personal uses.

- *Aging infrastructure* – Local, state, and federal government investment in infrastructure is lagging and is needed to support maintenance, modernization, replacement, or new infrastructure development.

- *High utility costs* – Relative to major urban settings in Alaska, utility costs can be significantly higher for fuel, power, internet, and other utilities.

- *Small population base* – The region has a relatively small population base to support community support sectors and economic development growth.

- *Lack of available, skilled workforce* –Gaps exist between local residents' level of expertise and the types of jobs available in the region.

- *Lack of economic diversity seasonal economies* – Year-round business and employment opportunities are relatively limited outside of health services, government services, and TAPS (in Valdez).

- *Competition for visitor market/recreational market* – Funding to attract more visitor and recreation options to the region must compete with that for other markets.

Opportunities – Potential External Improvement

PWS's economic development opportunities include improving ferry and other transportation connections; developing natural resources, including those in the mariculture sector; developing and promoting visitor and recreation offerings; and diversifying business and sector development. Components of these opportunities include:

- *Potential for regional ferry system* – Support of a regional ferry system can improve reliable resident and business transportation connectivity within PWS.
- *Port infrastructure improvements* – Improve regional ports to help lower transportation costs and prepare for climate change impacts.
- *Expanded visitor industry offerings* – Enhance the existing cultural and wilderness/outdoor recreation opportunities for resident and visitor use.
- *Internet/broadband infrastructure improvement* – Expand and improve internet connectivity to enhance entrepreneurship, business development, and distance delivery of education while lowering costs.
- *Gas pipeline* – Develop a gas pipeline from Alaska's North Slope to Valdez to enhance energy options and reduce energy costs, as well support pipeline construction and production jobs.
- *Gateway to the Arctic* – Support new infrastructure and economic activities for emergent national security, economic, and transportation issues related to Alaska's strategic Arctic location.
- *Rail development (A2A)* – Add a rail link connecting Valdez to the Alaska railroad expansion to Canada, expanding transportation options for resource and product distribution to and from PWS.
- *Alternative energy – hydro, solar* – Employ new technologies to expand energy options and potentially reduce energy costs to the region.
- *Maritime industry training* – Connect training to available employment opportunities in PWS's maritime industry.
- *Remote worker attraction* – Promote the PWS lifestyle available to workers who choose to work remotely.
- *Mariculture* – Develop new businesses to support growth of PWS's mariculture sector.
- *Fisheries/ hatchery development* – Sustain support for existing and enhanced fisheries and hatchery development.
- *Enhanced arts community* – Augment support and development of the region's rich arts sector, including Alaska Native, visual, and performance arts.
- *Food manufacturing industry development* – Seek financial support for food processing facilities and business opportunities.

- *Carbon capture opportunities* – Identify climate change mitigation projects, such as blue and carbon sequestration, and green energy/energy efficiency.
- *Increased mineral exploration* – Support mineral exploration and potential development of the region's mineral resources.

Threats – Potential Negative Impacts

PWS faces potential threats to economic development, including climate change, dependency on state funding, global commodity prices, outside interests, and political dynamics. Components of these threats include:

- *State fiscal support for ferry system* – Alaska's fiscal crisis is impacting the state's ability to support an efficient, consistent, and reliable ferry system to connect the region's coastal communities.
- *Climate change* – Impacts include coastal erosion, ocean salination, health of aquaculture resources, glacier melt, and infrastructure and maintenance.
- *Earthquake/tsunami/landslide risk* – Alaska's natural earthquake activity presents ongoing readiness for tsunami and landslides.
- *State fiscal support for education continuum* – The state's fiscal constraints impact the public education system from pre-K to post-secondary academic and vocational offerings to regional residents.
- *National and international economy's impact on the tourism market* – The visitor market is affected by national and international consumer confidence.
- *Oil and gas commodity prices/production affecting TAPS through-put* – TAPS through-put and vitality is impacted by North Slope oil production decreases and global oil pricing.
- *Seafood commodity prices* – Global seafood prices impact income, business, and investment stability in the seafood sector.
- *Fisheries' health*– Development of PWS fisheries is dependent on proper state, federal, and international management and changing climate factors.
- *Lengthy and costly permitting process* – State and federal permitting inefficiencies can impact investment in PWS infrastructure and natural and marine resource development.
- *Regional/state competition for resources and tourism* – Growing pressures on regional and state budgets threaten PWS's ability to attract public funding for resource and tourism market development.
- *Pandemics* – COVID-19 and its variants, as well as other pandemics, have heavy consequences for regional economies.

Chapter 4: Economic Resiliency

This plan's vision statement reflects the need for collaboration within the region to reduce connectivity barriers in transportation, communications, education, and economic diversity. Through stakeholder interviews, data analysis, and work with the PWSEDD, key themes emerged to enhance PWS's economic resiliency.

- **Strengthen Regional Collaboration and Connectivity** – To address the disconnectedness due to lack of regional transportation, communication, and other infrastructure networks, PWS is seeking ways to coordinate legislative and investment objectives, and leverage shared and local interests to create strong regional outcomes.

- **Strengthen Cultural Ties** – PWS's approach to its economic development strategy includes a strong emphasis on the region's culture to ensure development does not harm the environment, subsistence resources, scenic beauty, and wilderness, and enhances quality of life.

- **Diversify Economy –** PWS is highly dependent on seasonal industries, such as seafood and tourism, and plans to pursue opportunities to diversify the economy and full-year business opportunities, including additional natural resource development (mariculture), arts, and other initiatives.

- **Diversify Energy Sources** – Reliance on diesel fuel for heat and energy increases cost of living in the region and makes it vulnerable to changes in fuel prices; While the PCE program reduces the cost of energy for households currently, reductions in the program could significantly impact cost of living. The region is implementing a strategy that would diversify energy sources and move away from diesel to alternative sources suited to small-scale production and reduce power costs.

- **Develop Competitive Infrastructure** – PWS recognizes the need to incorporate emergent communications technology and transportation infrastructure, competitively positioning PWS as an attractive region to invest and do business.

- **Enhance Job Skills** – PWS is working toward skills training within the region to position its residents to take advantage of business and industry development opportunities, such as maritime industry opportunities, small business entrepreneurship, and mariculture.

- **Reduce Climate Change Impacts** – PWS recognizes the need to be prepared for and reduce impacts of climate change on regional infrastructure and economic development opportunities.

Chapter 5: Strategic Direction and Action Plan

This chapter presents the CEDS vision statement, overarching goals, priority objectives and action plan as developed in consultation with the PWSEDD and stakeholders. Action plan items include:

- Activities – *What activities need to be completed?*
- Timeline – *What is a realistic time frame for execution?*
- Responsibility – *Which organization will lead, and which organization will support the action item?*
- Expected costs – *How much will this action item cost?*
- Potential funding sources – *Where will funding come from?*

CEDS Vision Statement

Prince William Sound is an alliance of vibrant, coastal communities collaborating to build on and sustain our natural resources through responsible economic development and regional connectivity.

Strategic Plan

GOAL A: *Improve regional connection by enhancing transportation and utilities infrastructure. Enhance infrastructure to build resilience to climate change, increase economic development opportunities, and enrich the way of life in Prince William Sound.*

Infrastructure Development

Strengths	Weaknesses	Opportunities	Threats
• Marine/port/pipeline infrastructure in place • Environmental stewardship • Airport infrastructure • Low water and sewage treatment costs • Tribal communities and ANCSA corporate values • U.S. Coast Guard/defense presence	• Lack of quality, affordable housing • Transportation challenges/inaccessibility/ interconnectivity due to remote geography, infrastructure, and weather • Lack of developable land • Cost of living • Insufficient broadband infrastructure • Aging infrastructure • High utility costs	• Port infrastructure improvements • Expanded visitor industry offerings – cultural and wilderness/outdoor recreation • Internet/broadband infrastructure improvement • Potential for regional ferry system • Gas pipeline • Gateway to the Arctic • Rail development (A2A) • Alternative energy – hydro, solar	• State fiscal support for ferry system • Climate change • Earthquake/tsunami/land slide risk

Infrastructure Development

Priority Objective 1: Develop regional transportation infrastructure

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Explore intra-regional ferry system: convene regional committee to share existing resources	Fall 2021	PWSEDD	PWS Municipalities and Tribes, Chambers of Commerce/Visitor Bureaus	Under $1,000	PWSEDD
b. Explore intra-regional ferry system: analyze intra-regional ferry system financial feasibility	2022	PWSEDD	Regional Intra-Regional Ferry Committee	$100,000	US EDA CARES Act, Local government support
c. Evaluate/analyze governance of PWS Port Authority	2022	PWSEDD	Regional Intra-Regional Ferry Committee	$50,000	US EDA CARES Act, Local government support
d. Maritime infrastructure: evaluate infrastructure consistency as it relates to intra-regional ferry authority	2023	PWSEDD	Regional Intra-Regional Ferry Committee	$50,000-$100,000	Local government support, ADOT&PF
e. Air connections: Convene regional committee to champion enhanced air transportation connections	Fall 2021	PWSEDD	Chambers of Commerce/Visitor Bureaus, Airport Managers, Carriers	Under $1,000	PWSEDD
f. Air connections: Evaluate/analyze barriers to scheduled air transportation, including market conditions, carrier perspective, and physical infrastructure/assets	2022	PWSEDD	DOT&PF, Carriers	Under $5,000	PWSEDD, leverage Airport Master Plan planning process
g. Air connections: Strategize with air charter operators to ensure sustained service	2022	PWSEDD	Local air charter operators	Under $1,000	PWSEDD

Priority Objective 2: Increase broadband internet access and capacity

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Identify status of connectivity, needs, potential funding opportunities, and state of technology	2021-2025	PWSEDD	Cordova Telephone Cooperative, Copper Valley Telecom, Tribal Councils	$5,000 - $10,000	PWSEDD, Denali Commission, USDA Community Connect, NTIA Connectivity Program

Infrastructure Development (continued)

Priority Objective 3: Increase housing quality and affordability

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Convene regional housing working group	Fall 2021	PWSEDD	NPRHA, Housing developers, Tribal Councils, AHFC, realtors	Under $1,000	PWSEDD
b. Identify strategies for increasing market rate and affordable housing stock	2022	PWSEDD	Regional housing working group	$5,000	PWSEDD EDA Agreements
c. Explore strategies to increase energy efficiency of housing stock	2022-2025	PWSEDD	AHFC, NPRHA, REAP, Cold Climate Housing Center	$5,000-$10,000	HUD programs, Alaska Housing and Finance Corporation, other energy efficiency grants

Priority Objective 4: Enhance recreational infrastructure throughout the region

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Support regional SCORP planning	2021-2022	PWSEDD	SCORP PWS Regional Working Group	Under $1,000	Land & Water Conservation Fund
b. Promote public awareness of existing infrastructure	2021-2025	Chambers of Commerce/ Visitors Bureau	PWSEDD, USFS, ADNR, ATIA, Alaska Native corporations	$25,000-$50,000	US ARPA, tourism/recreation grants
c. Create and promote a marine trail to leverage existing State marine Parks and private lodging	2021-2025	Alaska Outdoor Alliance	PWSEDD, USFS, ADNR, Alaska Native corporations, PWS Stewardship Foundation	$200,000	DNR Recreation Trails Grant Program, Recreation infrastructure grants, EVOS Trustee Council, Land & Water Conservation Fund

Priority Objective 5: Reduce energy costs

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Convene energy committee to explore alternative energy sources to reduce costs	2021-2025	PWSEDD	Cordova Electric Cooperative, Copper Valley Electric, REAP, AEA, Tribal Councils	$5,000	EDA

GOAL B: *Boost the regional continuum of education from early childhood learning through post-secondary opportunities. Enhance employability skills and adapt to the evolving opportunities of regional economic development through education and training.*

Workforce Development

Strengths	Weaknesses	Opportunities	Threats
• Cultural background & history • High secondary school graduation rate • Tribal communities and ANCSA corporate values • State University community campus • Family-friendly communities	• Cost of living • Small population base • Lack of available, skilled workforce	• Maritime industry training • Remote worker attraction	• State fiscal support for education continuum

Workforce Development

Priority Objective 1: Increase access to early childhood education

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Convene a stakeholder group and prospective partners to explore options for early childhood education	Fall 2021	PWSEDD	Chugachmiut, thread, Camp Fire, ADEED, Childcare providers, Chambers of Commerce	Under $1,000	PWSEDD

Priority Objective 2: Enhance in-region post-secondary vocational training opportunities

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Convene a stakeholder group to address current and future needs	2021-2025	Cordova School District CTE Lead	School districts, University of Alaska, Local businesses, ADOLWD, Alaska Native corporations and tribal councils	$5,000	Alaska Safety Alliance grants

Priority Objective 3: Strengthen Prince William Sound College connections in-region

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Advocate for an enhanced/continued presence with University of Alaska leadership to bring more resources to the PWS College	2021-2025	PWS College	PWSEDD, school districts, Chambers of Commerce, Alaska Native corporations, and tribal councils	$5,000 to $10,000	UA, PWSEDD, Alaska Native corporations
b. Explore Alaska Native Tribal educational resources	2021-2025	Chugach Alaska Corporation	Valdez Native Tribe, Native Village of Eyak, TCC Partnership	$50,000	Alaska Native corporations and tribal entities
c. Promote opportunities for students to stay in-region through college	2021-2025	PWS College	PWSEDD, school districts, Chambers of Commerce, Alaska Native corporations, and tribal councils	$10,000	UA, Alaska Native corporations

GOAL C: *Seek business development and investment to promote regional industry growth, responsible resource development, and economic diversity. Attract business opportunities to the region that support employment opportunities in every season.*

Strengthen Existing Industries and Diversify Economy

Strengths	Weaknesses	Opportunities	Threats
• Marine resources – fisheries, aquaculture, and others • Scenic environment (natural beauty/ unique wilderness) • Natural resources – minerals, forestry, water • Environmental stewardship • Tribal communities and ANCSA corporate values • Strong arts community	• Lack of developable land • Lack of economic diversity/ seasonal economies • Competing for visitor market/ recreational market	• Mariculture • Fisheries/ hatchery development • Enhanced arts community • Food manufacturing industry development • Carbon capture opportunities • Increased mineral exploration (i.e., gravel)	• National and international economy/ confidence affecting tourism market • Oil and gas commodity prices/production affecting TAPS through-put • Seafood commodity prices • Health of fishery • Lengthy and costly permitting process • Climate change • Regional/state competition for resources and tourism • Pandemics

Strengthen Existing Industries and Diversify Economy

Priority Objective 1: Promote PWS as a tourism destination

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Attract small cruise vessels	2021-2025	VCVB, Cordova Chamber of Commerce, GWCC	VCVB, Cordova Chamber of Commerce, GWCC, PWSEDD	$50,000-$100,000	CARES Act, US ARPA, bed tax revenues
b. Attract business conference market	2021-2025	VCVB, Cordova Chamber of Commerce, GWCC	VCVB, Cordova Chamber of Commerce, GWCC, PWSEDD	$40,000	Bed tax revenues, Safe Travel and Promotions Grant (2021-2022)
c. Develop outdoor recreation assets and marketing	2021-2025	PWSEDD	State and Federal agencies, Regional outdoor recreation businesses	$100,000-$5 million	Land & Water Conservation Fund, Recreation Trails Program, various foundations, U.S. Forest Service, Alaska Native corporations
d. Focus on marketing to independent travelers and Alaskans	2021-2025	VCVB, Cordova Chamber of Commerce, GWCC	VCVB, Cordova Chamber of Commerce, GWCC	$200,000	CARES Act, US ARPA, bed tax revenues
e. Develop Alaska Native cultural tourism opportunities	2021-2025	TCC Partnership	Chugach Alaska Corporation, Chenega Corporation, Tatitlek Corporation	$200,000	EVOS Trustee Council, tribal economic development grants

Priority Objective 2: Support the local arts and humanities community

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Convene a regional arts roundtable to develop brand/marketing/identity around local arts community, including Alaska Native arts, performing arts, visuals arts, and others	2022	PWSEDD	Valdez Arts Council, Cordova Arts, Chugach Heritage Foundation	$5,000	PWSEDD
b. Support construction of new arts venues including museums, galleries, and performance halls	2021-2025	PWSEDD	Valdez Arts Council, Cordova Arts, Chugach Heritage Foundation	<$1,000	PWSEDD

Strengthen Existing Industries and Diversify Economy (continued)

Priority Objective 3: Facilitate mariculture opportunities

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Facilitate relationships with potential producers, buyers and processors	2021-2025	PWSEDD	Alaska Mariculture Alliance, Alaska Sea Grant	$15,000	PWSEDD, EDA, NOAA
b. Ensure PWS voice is represented within the Alaska Mariculture Alliance board and shares information with local stakeholders	2021-2025	PWSEDD	ADF&G, kelp farmers	$5,000	PWSEDD
c. Attract investment in PWS mariculture	2021-2025	PWSEDD	Alaska Mariculture Alliance, Alaska Sea Grant, kelp farmers	$20,000	PWSEDD, EDA, NOAA, EVOS Trustee Council, Denali Commission

Priority Objective 4: Seek food production and processing opportunities

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Establish co-operative greenhouses/ community gardens in the region	2021-2025	PWSEDD	Copper River Watershed Project, local school districts, municipalities/tribal councils	$500,000	USDA, Alaska DNR, tribal health grants
b. Explore opportunities for food production processing facility development	2021-2025	PWSEDD	City of Cordova, CR/PWS Marketing Association	$7 million-$10 million	EDA, USDA

Priority Objective 5: Identify climate change mitigation projects

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Explore blue and carbon sequestration opportunities	2021-2025	Chugach Alaska Corporation	PWSEDD, Alaska DNR, U.S. Forest Service, UA, private landowners	$100,000	EVOS Trustee Council, conservation nonprofit corporations
b. Promote green energy/energy efficiency in residential and commercial construction & manufacturing	2021-2025	CVEA,CEC, Chugach Electric	PWSEDD, municipalities/tribal councils, NPRHA, AHFC, PWS College	$200,000	U.S. Department of Energy, REAP, AEA, AHFC, HUD

Priority Objective 6: Support responsible mineral/quarry exploration

Action	Timeline	Lead	Partners	Cost	Funding Sources
a. Attract investors to look for other mining opportunities	2021-2025	Chugach Alaska Corporation	PWSEDD	$20,000	Chugach Alaska Corporation

Strengthen Existing Industries and Diversify Economy (continued)

Priority Objective 7: Support responsible forestry opportunities					
Action	**Timeline**	**Lead**	**Partners**	**Cost**	**Funding Sources**
a. Collaborate with Chugach Alaska Corporation on responsible forestry initiatives	2021-2025	Chugach Alaska Corporation	PWSEDD	$10,000	PWSEDD, Chugach Alaska Corporation
Priority Objective 8: Attract new residents who telework					
Action	**Timeline**	**Lead**	**Partners**	**Cost**	**Funding Sources**
a. Define target audiences for campaign	2021-2022	PWSEDD	Local Chambers of Commerce	$5,000	PWSEDD
b. Collaborate with Chambers of Commerce on community marketing, recruitment material to promote opportunities for work-from-home	2022-2023	Local Chambers of Commerce	PWSEDD	$25,000	EDA, bed tax revenues

The matrix below summarizes the qualitative and quantitative performance measures developed for objectives and action items for each of the three goals.

Goal A: Improvement and Development of Critical Infrastructure	
Action	**Performance Measure**
Priority Objective 1: Develop regional transportation infrastructure	
a. Explore intra-regional ferry system: convene regional committee to share existing resources	• Committee members identified and selected • Regional committee convened by fall 2021
b. Explore intra-regional ferry system: analyze intra-regional ferry system financial feasibility	• Funding sources identified • Level of funding received • Financial feasibility analysis of intra-regional ferry system commissioned • Financial feasibility analysis of intra-regional ferry system completed
c. Evaluate/analyze governance of PWS Port Authority	• Funding sources identified • Level of funding received • Governance analysis of intra-regional port authority commissioned • Governance analysis of intra-regional port authority completed
d. Maritime infrastructure: evaluate infrastructure consistency as it relates to intra-regional ferry authority	• Funding sources identified • Level of funding received • Infrastructure analysis commissioned • Infrastructure analysis completed
e. Air connections: Convene regional committee to champion enhanced air transportation connections	• Committee members identified and selected • Regional committee convened by fall 2021
f. Air connections: Evaluate/analyze barriers to scheduled air transportation, including market conditions, carrier perspective, and physical infrastructure/assets	• Funding sources identified • Level of funding received • Air transportation analysis commissioned • Air transportation analysis completed
g. Air connections: Strategize with air charter operators to ensure sustained service	• Carrier representatives identified and selected • Interviews/work session with air carrier operators completed by the end of 2022
Priority Objective 2: Increase broadband internet access and capacity	
a. Identify status of connectivity, needs, potential funding opportunities, and state of technology	• Broadband infrastructure gap and needs analysis conducted • Infrastructure strategy defined

Goal A: Improvement and Development of Critical Infrastructure (continued)	
Action	**Performance Measure**
Priority Objective 3: Increase housing quality and affordability	
a. Convene regional housing committee	• Committee members identified and selected • Regional committee convened by fall 2021
b. Prepare regional housing study	• Funding sources identified • Level of funding received • Housing infrastructure needs and gap analysis commissioned • Housing infrastructure needs and gap analysis completed
Priority Objective 4: Enhance recreational infrastructure throughout the region	
a. Support regional SCORP planning	• Participated in regional SCORP Working Group process
b. Create a marine trail to leverage existing State marine Parks and private lodging	• Funding sources identified • Level of funding received • Marine trail(s) defined and mapped • Infrastructure needs assessment conducted
Priority Objective 5: Reduce energy costs and increase efficiency	
a. Convene energy committee to explore innovative ways to reduce energy costs consistent with coastal climate conditions	• Committee members identified and selected • Regional committee convened regularly • Regional Energy Plan update considered

Goal B: Workforce Development	
Action	**Performance Measure**
Priority Objective 1: Increase access to early childhood education	
a. Convene a stakeholder group and prospective partners to explore options for early childhood education	• Stakeholder group/partners representatives identified and selected • Stakeholder group/partners convened by fall 2021
Priority Objective 2: Enhance in-region post-secondary vocational training opportunities	
a. Convene a stakeholder group to address current and future needs	• Stakeholder group representatives identified and selected • Stakeholder group convened regularly
Priority Objective 3: Strengthen Prince William Sound College connections in-region	
a. Advocate for an enhanced/continued presence with University of Alaska leadership to bring more resources to the PWS College	• Participated in advocacy to support and enhance PWS College
b. Explore Alaska Native Tribal educational resources	• Participated in Alaska Native Tribal educational resource development
c. Encourage students to stay in-region through college	• Participated in PWS College recruitment campaigns

Goal C: Strengthen Existing Industries and Economic Diversity	
Action	**Performance Measure**
Priority Objective 1: Promote PWS as a tourism destination	
a. Attract small cruise vessels	• Coordinated regional efforts to attract small cruise industry
b. Attract business conference market	• Identified opportunities for conference market development • Supported regional CVB proposals to conference organizers
c. Promote public awareness of existing outdoor recreation assets and infrastructure	• Funding sources identified • Level of funding received • Market strategy defined • Marketing campaign initiated
d. Promote marine trail	• Market strategy defined • Marketing campaign initiated
e. Focus on marketing to independent travelers and Alaskans	• Advocated for regional PWS destination brand development • Supported CVB campaigns to brand PWS as a destination
f. Develop Alaska Native cultural tourism opportunities	• Supported Alaska Native organizations in development or promotion of regional cultural tourism
Priority Objective 2: Support the local arts and humanities community	
a. Convene a regional arts roundtable to develop brand/marketing/identity around local arts community, including Alaska Native arts, performing arts, visuals arts, and others	• Arts organization roundtable representatives identified and selected • Regional arts roundtable convened by the end of 2022
b. Support development of arts venues including museums, galleries, and performance halls	• Advocated for finance and market feasibility analyses for enhanced arts infrastructure
Priority Objective 3: Facilitate mariculture opportunities	
a. Facilitate relationships between producers, processors, and buyers	• Identified potential buyers and processors • Coordinated business connections
b. Ensure PWS voice is represented within the Alaska Mariculture Alliance board and shares information with regional stakeholders	• Identified regional stakeholders • Communicated with Alaska Mariculture Alliance regularly • Promoted opportunities for stakeholder engagement with Alaska Mariculture Alliance • PWS representative seated on Alaska Mariculture Alliance
c. Attract investment in PWS mariculture	• Defined opportunities for mariculture industry investment • Developed strategies to attract investment • Number of new mariculture permits and producers established

Goal C: Strengthen Existing Industries and Economic Diversity (continued)	
Action	**Performance Measure**
Priority Objective 4: Seek food production and processing opportunities	
a. Establish co-operative greenhouses/community gardens in the region	• Cooperative greenhouse/community garden feasibility analysis completed • Sited selected • Funding sources identified • Level of funding received • Number of cooperative/community gardens established in the region
b. Explore opportunities for food production processing facility development	• Food Production Processing Facility development feasibility completed
Priority Objective 5: Identify climate change mitigation projects	
a. Explore blue and carbon sequestration opportunities	• Identified blue and carbon sequestration opportunities
b. Promote green energy/energy efficiency in residential and commercial construction & manufacturing	• Promoted opportunities for green energy/energy efficiency in residential and commercial construction & manufacturing
Priority Objective 6: Support responsible mineral/quarry exploration	
a. Attract investors to look for other mining opportunities	• Defined opportunities for mineral/quarry exploration • Supported strategies to attract investment • Number of new mineral/quarries established
Priority Objective 7: Support responsible forestry opportunities	
a. Collaborate with Chugach Alaska Corporation on responsible forestry initiatives	• Supported responsible forestry initiatives • Participated in public review process
Priority Objective 8: Attract new residents who telework	
a. Define target audiences for campaign	• Investigated and identified target audience to attract
b. Collaborate with Chambers of Commerce on community marketing, recruitment material to promote opportunities for work-from-home	• Advocated for regional PWS brand development • Supported campaigns to brand PWS as a destination • Supported Chambers of commerce in development or promotion of regional recruitment

Chenega

Demographics and Socioeconomics	
Year Incorporated	Re-established 1984
Community Type	Unincorporated village/ CDP
Federally Recognized Tribe	Native Village of Chenega
Population (2019)	61
Median Age (2015-2019)	31.5
% Alaska Native/American Indian alone or in combination (2015-2019)	69.1%
Average Household Size (2015-2019)	5.23
Median Household Income (2015-2019)	$74,375
Denali Commission Distressed Community	Yes



Infrastructure	
Electric Utility	Chenega IRA Village Council (Diesel)
Water System	Surface water
Wastewater System	Chenega IRA Council
Road Access	No
Air Access	Scheduled/ Chartered flights
Runway 1	3,000 ft (gravel)
Runway 2	Float plane landing
Dock/Port	Yes

Employment

Top Employers	Employees
Chenega Bay Health Clinic	1-4
Chugachmuit Behavioral Health	1-4

Number of Active Business Licenses (2021): 3

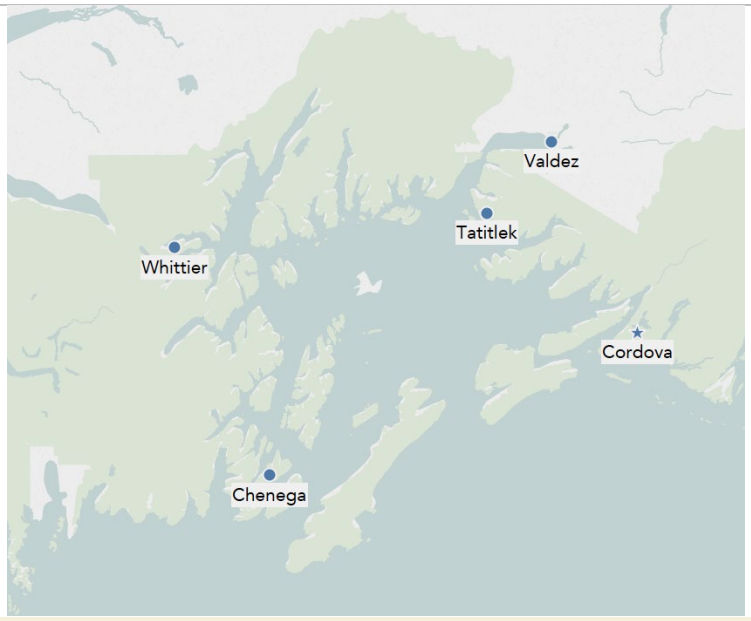
Schools

Chenega School Grades: Pre-K-12	Enrollment: 13	Year Built: 1990

Cordova

Demographics and Socioeconomics

Year Incorporated	1909
Community Type	City
Federally Recognized Tribe	Native Village of Eyak
Population (2019)	2348
Median Age (2015-2019)	38.2
% Alaska Native/American Indian alone or in combination (2015-2019)	18.8%
Average Household Size (2015-2019)	3.33
Median Household Income (2015-2019)	$94,625
Denali Commission Distressed Community	No



Infrastructure

Electric Utility	Cordova Electric (Diesel/Hydro)
Water System	Surface Water
Wastewater System	City of Cordova Public Works
Road Access	No
Air Access	Commercial/Jet/Air Taxi/Float
Runway 1	7,500 ft
Runway 2	1,899 ft
Dock/Port	Yes

Employment

Top Employers	Employees
Copper River Seafoods	100-249
Ocean Beauty Seafoods LLC,	100-249
Trident Seafoods Office	100-249

Number of Active Business Licenses (2021): 404

Schools

Cordova Jr/Sr High School
Grades: 7-12 Enrollment: 140 Year Built: 1966/1979

Mount Eccles Elementary School
Grades: Pre-K-6 Enrollment: 194 Year Built: 1955/1964/2010

Cordova School District Innovative Learning
Grades: K-12 Enrollment: 5 Year Built: 2012

Tatitlek

Demographics and Socioeconomics

Year Incorporated	Unincorporated
Community Type	Village
Federally Recognized Tribe	Native Village of Tatitlek
Population (2019)	98
Median Age (2015-2019)	29.6
% Alaska Native/American Indian alone or in combination (2015-2019)	94.5%
Average Household Size (2015-2019)	4.56
Median Household Income (2015-2019)	$65,000
Denali Commission Distressed Community	Yes



Infrastructure

Electric Utility	Tatitlek IRA Council
Water System	Surface water
Wastewater System	Tatitlek IRA Council
Road Access	No
Air Access	Gravel airstrip/Seaplane landing
Runway 1	3701 ft
Runway 2	Float plane landing
Dock/Port	Yes

Employment

Top Employers	Employees
Tatitlek Community School	5-9

Number of Active Business Licenses (2021): 2

Schools

Tatitlek Community School

Grades: Pre-K-12 | Enrollment: 22 | Year Built: 1984

Valdez

Demographics and Socioeconomics

Year Incorporated	1901
Community Type	City
Federally Recognized Tribe	None
Population (2019)	3,885
Median Age (2015-2019)	43.3
% Alaska Native/American Indian alone or in combination (2015-2019)	3.4%
Average Household Size (2015-2019)	2.4
Median Household Income (2015-2019)	$85,085
Denali Commission Distressed Community	No



Infrastructure

Electric Utility	Copper Valley Electric Association (Diesel/hydroelectric)
Water System	City of Valdez
Wastewater System	City of Valdez
Road Access	Yes
Air Access	Commercial/Seaplane
Runway 1	6,500 ft
Runway 2	Float plane landing
Dock/Port	Yes

Employment

Top Employers	Employees
Alyeska Pipeline Svc Co.	250-499
Transalaska Pipeline Marine	250-499
Laborers International Union	250-499

Number of Active Business Licenses (2021): 496

Schools

George H. Gilson Middle School
Grades: 6-8 Enrollment: 151 Year Built: 2014

Valdez High School
Grades: 9-12 Enrollment: 183 Year Built: 1976/2001

Hermon Hutchens Elementary
Grades: Pre-K-5 Enrollment: 365 Year Built: 1980

Whittier

Demographics and Socioeconomics

Year Incorporated	1969
Community Type	City
Federally Recognized Tribe	None
Population (2019)	281
Median Age (2015-2019)	38.1
% Alaska Native/American Indian alone or in combination (2015-2019)	25.2%
Average Household Size (2015-2019)	2.56
Median Household Income (2015-2019)	$59,000
Denali Commission Distressed Community	Yes



Infrastructure

Electric Utility	Chugach Electric Association Inc. (Natural gas/hydroelectric/wind)
Water System	Whittier Water System
Wastewater System	Small Water System
Road Access	Yes
Air Access	Seaplane/ Charters
Runway 1	1480 ft
Runway 2	Float plane landing
Dock/Port	Yes

Employment

Top Employers	Employees
Alaska Sea Kayakers	10-19
Whittier Seafood LLC	10-19
Begich Towers	10-19

Number of Active Business Licenses (2021): 65

Schools

Whittier Community School

Grades: Pre-K-12	Enrollment: 60	Year Built: 1953/1985/1993

Appendix B: Stakeholder Interviews

- Sharon Anderson, Valdez Convention & Visitors Bureau (Valdez)
- Martha Barberio, City of Valdez (Valdez)
- Sheri Buretta, Chugach Alaska Corporation (Anchorage)
- Garrett Evridge, Alaska Ocean Cluster (Anchorage)
- Jeff Guard, Cordova City Council (Cordova)
- Michael Hanley, Chugach School District (Anchorage)
- Olen Harris, North Pacific Rim Housing Authority (Anchorage)
- Willow Hettrick, Chugach Regional Resources Commission (Anchorage)
- Josie Hickel, Chugach Alaska Corporation (Anchorage)
- Jim Holley, Alaska Marine Lines (Anchorage)
- Mark Hoover, Native Village of Eyak Tribal Council (Eyak)
- Helen Howarth, City of Cordova (Cordova)
- Jim Hunt, City of Whittier (Whittier)
- Lauren Johnson, Chugach Heritage Foundation (Anchorage)
- Sylvia Lange, Native Village of Eyak Tribal Council (Eyak)
- Brooke Mallory, Native Village of Eyak/Eyak Foundation (Cordova)
- Brigham A., McCown, Alyeska Pipeline Service Company (Anchorage)
- George Rauscher, State Representative, Alaska State Legislature (Sutton)
- Annie Reeves, City of Whittier (Whittier)
- Cathy Renfeldt, Cordova Chamber of Commerce (Cordova)
- Buell Russell, Native Village of Chenega (Chenega)
- Alex Russin, Cordova City School District (Cordova)
- Tommy Sheridan, Former ADF&G Fisheries Biologist (Cordova)
- Chuck Totemoff, Chenega Village Corporation (Anchorage)
- Jan Vanderpool, Chugachmiut (Anchorage)
- Mike Wells, Valdez Fisheries Development Association (Valdez)

Appendix C: Reference Materials

A variety of data sources were reviewed and reference in the creation of the PWSEDD CEDS, including local government documents, third-party reports, and standard data sources. This appendix outlines key data sources.

Primary documents reviewed included:

- *City of Cordova Comprehensive Plan Update*, 2019
- *Valdez Comprehensive Waterfront Master Plan*, January 2020
- *Valdez, Alaska Parks and Recreation Master Plan*, July 2020
- *Valdez Year-Round Mountain Recreation Site Study*, December 2016
- *Community of Valdez Strategic Plan 2013-2018*, January 2013
- *Whittier Comprehensive Plan 2020*, January 2020
- *Prince William Sound Regional Energy Plan*, June 2016
- *Prince William Sound Transportation Plan*, July 2001
- *Sound Opportunities – Economic Growth for the Prince William Sound Region Vision – Strategy – Action 2016-2021*

Publicly available data were analyzed to provide key context for the action plan, including:

- Alaska Department of Commerce, Community, and Economic Development (community infrastructure)
- Alaska Department of Labor and Workforce Development (demographics, employment and wages, labor force status, top employers)
- Alaska Department of Public Safety (Alaska State Troopers arrests)
- Alaska Department of Fish and Game (commercial and sport fishing harvest and participation)
- Alaska Department of Revenue, Revenue Sources Book (tax revenue)
- Alaska Department of Transportation and Public Facilities (planned/proposed regional capital projects)
- Alaska Housing Finance Corporation (housing occupancy, overcrowding, cost burdened households)
- Alaska Village Electric Cooperative and Alaska Energy Authority (fuel/electricity pricing, PCE subsidies)
- Bureau of Economic Analysis (personal income and employment)
- Denali Commission (distressed community status)
- Esri ArcGIS (Federal land ownership)
- Federal Financial Institutions Examination Council (small business loans)
- McDowell Group, *Alaska Geographic Differential Study (2008)*
- McDowell Group, *Alaska Visitor Statistics Program 7 (2017)*
- National Centers for Environmental Information (climate data)
- Alaska Department of Education and Early Development (school enrollment, grade level proficiency, and graduation rates)
- U.S. Census Bureau's 2015-2019 American Community Survey data (demographics, housing characteristics, household income)

Appendix D: Online Stakeholder Survey Results

As part of the Prince William Sound Economic Development District's Comprehensive Economic Development Strategy (CEDS) update, an online survey was designed to capture regional residents' opinions of the region's top three strengths, weaknesses, opportunities, and threats related to the region's economy. The survey questions were designed to capture open-ended responses. Regional residents were encouraged to complete the survey through social media postings, radio shows, CEDS Strategy Committee member contacts, and other communications. The survey was fielded from November 12, 2020 to May 11, 2021. A total of 92 residents responded to the survey with most residents residing in Cordova (52%), followed by Valdez (26%).

Table 42. Resident Stakeholder Online Survey: Respondents by Community

Community	Count	% of Total
Cordova	48	52%
Valdez	24	26%
Whittier	12	13%
Chenega/Tatitlek/Other	8	9%
Total	**92**	**100%**

Responses were sorted into general themes. Themes for the top three responses included:

- **STRENGTHS:** Marine resources (i.e., fisheries, aquaculture) (26%), scenic environment (19%), and outdoor recreation (9%)
- **WEAKNESSES**: Transportation challenges/inaccessibility/interconnectivity (31%), cost of living (14%), and lack of economic diversity/seasonal economics (12%)
- **OPPORTUNITIES:** Expanded visitor industry offerings (33%), fisheries/hatchery development (17%), port infrastructure (7%), and mariculture (7%)
- **THREATS:** Health of fishery (14%), state fiscal support for ferry system (13%), and political considerations (i.e., state budget in general, regulations) (8%)

Below is a table that displays sorted top responses by themes.

Table 43. Resident Stakeholder Online Survey: Most Common Themes by Percentage of Responses

Strengths		Weaknesses		Opportunities		Threats	
Category	**%**	**Category**	**%**	**Category**	**%**	**Category**	**%**
Marine resources – fisheries, aquaculture	24%	Transportation challenges/ inaccessibility/ interconnectivity due to remote geography, infrastructure, and weather	31%	Expanded visitor industry offerings – cultural and wilderness/outdoor recreation	33%	Health of fishery	14%
Scenic environment	19%	Cost of living	14%	Fisheries/hatchery development	17%	State fiscal support for ferry system	13%
Outdoor recreation	9%	Lack of economic diversity/ seasonal economies	12%	Port infrastructure improvements	7%	Political considerations (state budget in general, specific politicians, regulation)	8%
Natural resources – minerals, forestry, water	7%	Lack of quality, affordable housing	5%	Mariculture	7%	Oil and gas commodity prices/production affecting TAPS throughput	6%
Marine/port/pipeline infrastructure in place	6%	Weather and natural disasters	4%	Internet connectivity/ telecommuters/ remote business	4%	Cost of living/energy costs	5%
Tourism	6%	Aging infrastructure	4%	Ferry service/ transportation	4%	Climate change	5%
Sense of community	5%	Political considerations (specific politicians, legislative support)	3%	Oil and gas	3%	Natural disasters – earthquakes, tsunamis, landslides	5%
Physical isolation	3%	Lack of tourist traffic	3%	Food manufacturing/ seafood processing	2%	Oil spills	5%
Low population/not crowded	2%	Lack of communication/ narrow-mindedness	3%	Arts	2%	Competition with other Alaska regions	4%
Cultural background and heritage	1%	Energy costs	2%			Lack of clients/tourists/cruise ships	3%
All other	2%	All other	19%	All other	23%	All other	29%

Verbatim Additional Responses

Respondents were asked to submit any additional comments to the question, *Do you have any additional comments related to the economic development of Prince William Sound?* Below is a list of all verbatim additional comments submitted. Some responses have been altered for spelling and grammar readability.

- A huge emphasis needs to be on taking down condemned buildings and being strategic with what businesses and what type of buildings we have on our main streets (This aids in creating culture, an identity perceived by outsiders -- those looking to relocate & tourists looking to visit somewhere unique). Also, the housing crisis and the % of trailer homes in our town is nearly a joke. This element of our town is not attractive for young families/singles/young professionals to live here, in the snowiest city in America, in a single-story trailer home. Starter homes are too expensive, and the demand is too high. Something needs to be done or we won't be able to gain any momentum.
- Advertise the diversity of our populations and how accepting the communities are.
- Anchor and support sustainable businesses like Kale n' Thyme.
- Apprenticeship programs in education, sciences, and healthcare.
- Ban large cruise ships.
- Be realistic...easy to talk but it costs time/money/people to develop.
- Be willing to innovate.
- Become a strong voice for transportation.
- Better advertisement of PWS.
- Borough formation might work now because of the diverse economies of the three main cities.
- Bring back reliable ferry service.
- Build on protecting and developing key industries such as fishing, tourism, and transportation.
- Cargo shipping loading/unloading.
- Climate change is irreversible on the timescale of a human lifespan, increased variability in our natural resources must be anticipated in order to adapt.
- Collaborating with Valdez City Schools, the City of Valdez (public library, museums etc.), Alyeska, U.S. Coast Guard, Ollie course offerings (retired individuals), and courses to improve small business owners.
- Combine environment projects with tourism.
- Communities on the road don't need outlying towns.
- Community compost/bioenergy production.
- Community greenhouses.
- Connect the communities (residents will benefit and the connectedness will be very attractive to tourists).
- Continued municipal support of community residents in their recreation pursuits (e.g., Meals Hill Plan, public pool time, maintenance and development of local trails, Mighty Mites Program, etc.) and also of small businesses during economic downturns (e.g., Marketing Grant Program, Covid Conscious Business Incentive Program, etc.). All of this is much appreciated BTW!!
- Cordova needs to generate a predictable or increasing percentage of revenue from sources other than salmon (Salmon is great -- let's also diversify).
- Cordova port and harbor are failing; it houses the largest commercial fishing fleet by number of boats in the state; city needs assistance finding funding for the project.

- Create an identity, culture through a unified marketing strategy.
- Creative strategies that incorporate beauty, useable outdoor spaces, and alternate transportation routes will add value to our community.
- Dip netting.
- Encourage and support cultural arts, history, and music.
- Encourage our young people to return or stay.
- Engage tribes.... they hold many of the cards.
- Expand tourism beyond the usual suspects of skiing, fishing, bicycling, and ice climbing.
- Ferry service. (x3)
- Ferry service is a must.
- Finding ways to collaborate and support Alaska secondary educational opportunities.
- Focus marketing on millennial, adventure crowd.
- Focus on sustainable resources.
- Great opportunities exist for collaboration between PWS communities.
- Great to see PWSEDD working hard for our community and region. Thanks for all you do.
- Harsher fines and penalties for fish and wildlife violations.
- Housing infrastructure, housing options (apartments, studios, homes), and housing affordability are key. The cost to build new is exorbitant. Work with our Congressional delegation to expand the eligibility of New Market Tax Credits to communities like Cordova, which don't currently qualify. Develop the expertise and leading projects to use tools such as NMTCs to develop new housing and other infrastructure.
- How can this region be more sustainable and less reliant on imports? The million-dollar question!
- How people feel about development, and types of development, seems to skew very particular along partisan lines and thus is extremely polarized (pro vs. anti-wilderness; pro vs. anti "outsiders"). I am unsure what the way around this is.
- I encourage PWSEDD to meet quarterly in each of the communities in PWS to become a stronger, more unified voice.
- I hope we can think of something for the communities. Looking forward to the input, ideas, and survey results.
- I see a small number of people guiding the community in a direction that others aren't real happy about and there seems to be no working together.
- I'd like to see incentives for small businesses/incubators/entrepreneurs to set up shop here.
- Improve access.
- Improving our harbor supports our fishing industry; it is in dire need of repairs.
- Incentivize local business.
- Increased sport fishing numbers.
- Invest in the ferry system.
- Invest in travel and tourism.
- It is time to recognize the opportunity that IS Prince William Sound and work to responsibly develop it into the paradise that it is!

- It's definitely challenging to balance the economic benefits across communities -- communities like Valdez and Whittier can better benefit from ecotourism because of their location on the road system -- how do you spread those benefits to the non-road communities?
- Just increasing the visitor industry is not a win. More tourism may very well change the things that we value about our coastal lives.
- Keep education affordable and available.
- Keep summer fishing money from leaving Cordova.
- Lack of accountability.
- Leaders need to be forward thinking and pursue economic development opportunities so the communities in PWS don't die.
- Life is already difficult for folks living and making a living in the PWS area.
- Local government's ability to be agile and move quickly is a factor in development opportunities.
- Locally sourced food security is also important to economic growth and sustainability.
- Locals should not have to pay to go through the Whittier tunnel to come home.
- Lower cost of city fees.
- Making processors pay for water use in Cordova.
- Market the region as a great place to live for those who can telecommute.
- Network with communities.
- Open up land for development then build. Cordova needs houses, built and move-in ready to attract people to live there, not built and owned by local developers. You cannot develop an economy without citizens to operate within it.
- Particularly for Cordova, I think embracing some sort of sustainable tourism sector is absolutely crucial to this community's long-term prosperity. Natural beauty is abundant & sustainable.
- Piss-poor leadership.
- Please do more to include segments of community citizens that are traditionally reluctant to be part of these types of strategic planning activities.
- Prince William Sound is an ideal spot for inspiration, rejuvenation, etc. I imagine a facility equipped to host retreats -- artists, businesses, spiritual escapes, etc.
- Promote green spaces in town and quality of life.
- Promote small business on Main St.
- PWS communities need to work together to improve regional economy.
- Reducing hatchery production of salmon -- see hatchery-wild and similar studies for further detail.
- Retain elder population with housing and health resources.
- Revitalize Main Street.
- Seek input and participation from each community. We are all different and unique.
- Seriously by using the Cordova cash card system and making it permanent, we could ensure that money stays in Cordova. Employers could offer a portion of each payroll in a local Cordova cash card amount.
- Several smaller communities need help with major projects designed to enhance life and lifestyles in Sound communities.
- Shepard Point to protect our fisheries.
- Should become more of a community topic.

- Small business development is the way to go, larger companies are less likely to spring up where the overhead costs are so high; specialty manufacturing could work, smaller scale businesses.
- Spend more on marketing fish and tourism.
- Support independent businesses in all fields.
- Supporting communities with grant writing, more money coming in to help grow businesses and create programs that attract families with children.
- Supporting partnerships between industries and education.
- Supporting small business, most of the businesses in my town are owned by small business owners.
- Sustainable agriculture is an excellent opportunity offer fresh local produce, milk, eggs, and a variety of meats.
- Sustainable agriculture provides jobs and community activities.
- Thanks for doing this survey!
- The PWSEDD can be a strong catalyst for development.
- The small boat harbor at Whittier is seriously undersized for the amount of traffic and use from Anchorage and other residents.
- The town is great but is no longer running on the same energy it once did and people are leaving or trying to leave because their community has changed and not in a good way as one longtime resident who no longer lived here said.
- The Whittier Boat Launch is too often crowded and overused. It's undersized for the amount of boat launching activity that occurs April -- August.
- There is too much territorialism and competing industry.
- There needs to be more awareness to the aging population and how we are going to care for those who want to stay here the senior center as it exists should be ashamed of how they treat the seniors living there the wheels and meals program is appalling. The lunches that I saw delivered consistently to my aged friend weren't edible and it's a shame that someone would have even put that out as food. There needs to less ridiculous oversight and more interaction to keep them up and moving and interested in what's going on around them. Words like "I don't have to care about you" should never be uttered to an elderly person no matter how frustrated an employee is.
- This is a critical period of time for PWS communities. A good place to start is assuming within 20 years there will be little revenue from oil and wild salmon fisheries. How can we begin to diversify our economy NOW, prior to being forced to later?
- This survey was terrible. I expected to answer questions, not provide open ended comments.
- Valdez has underutilized fisheries/transportation infrastructure.
- We have a beautiful place, is very valuable, if we share it in a thoughtful way, a sustainable way, small tourism $$ could increase exponentially.
- We need a community ice rink with a roof, pipes beneath the surface, and a Zamboni.
- We need a youth hockey program to go with the ice rink.
- We need more land opened up for private development, too much is locked up by federal control. Near Cordova, the Forest service has denied multiple permits for heli-ski operations. Need to get those permits and more. Bring the small cruise operators back, too.
- We need to get our herring fishery re-opened. The fish are there but Fish and Game won't open it.
- We've come a great distance since 1992 when I first arrived.

- While our fisheries will fluctuate, potentially drastically, over the next 50 years, we remain surrounded by pristine wilderness, a dwindling land type that for many people is desirable to live on the edge of, to visit, and to be temporarily immersed in, which ironically increases the value of this wilderness and hopefully helps maintain it as a wild place. This is a resource PWS residents can count on having for several generations and one that we should strategize on how to promote, provide access sustainably creating an economy in transport, supplies, food service, local artisans, lodging, locally caught & SOLD seafood, brand enhancement, and, last but not least, taxes.
- Work on developing and running a PWS ferry.
- Working together we can achieve greatness.
- Would like to see more input by Fish and Game, Science Center, and any groups pertaining to long-term health of the fisheries and solutions.
- Would love to see some advancements in tidal energy research. Partner with Universities, etc.
- Year-round (responsible) Sound access.

McKINLEY RESEARCH GROUP, LLC

3800 Centerpoint Drive, Suite 1100 • Anchorage, AK 99503 • (907) 274-3200
9360 Glacier Highway, Suite 201 • Juneau, AK 99801 • (907) 586-6126

info@mckinleyresearch.com • mckinleyresearch.com

File #: 21-0385, **Version:** 1

ITEM TITLE:
Economic Diversification Commission Regular Meeting Minutes of June 16, 2021

SUBMITTED BY: Brianne Skilbred, Executive Administrative Assistant

FISCAL NOTES:

Expenditure Required: N/A
Unencumbered Balance: N/A
Funding Source: N/A

RECOMMENDATION:

Receive and File

SUMMARY STATEMENT:

Economic Diversification Commission regular meeting minutes of June 16, 2021 attached for review.

City of Valdez

212 Chenega Ave.
Valdez, AK 99686

Meeting Minutes - DRAFT

Wednesday, June 16, 2021

7:00 PM

Regular Meeting

Civic Center Conference Room

Economic Diversification Commission

DRAFT

REGULAR AGENDA - 7:00 PM

I. CALL TO ORDER

Commissioner Colleen Stephens called the meeting to order at 7:03pm in the Civic Center Conference Room.

II. ROLL CALL

Present	4 -	Commission Member Rhonda Wade
		Commission Member Colleen Stephens
		Commission Member Meredith Noble
		Commission Member Katharine Adams
Excused	2 -	Commission Member Jamie Berg
		Commission Member Brandon Reid
Absent	1 -	Commission Member Jim Shirrell
Also Present	2 -	Economic Development Director Martha Barberio
		Executive Assistant Brianne Skilbred

III. APPROVAL OF MINUTES

1. Economic Diversification Commission Regular Meeting Minutes of March 17, 2021

MOTION: Commissioner Noble moved, seconded by Commissioner Wade, to approve Economic Diversification Commission Regular Meeting Minutes of March 17, 2021. The motion carried by the following vote.

VOTE ON MOTION

Yays:	4 -	Commission Member Wade, Commission Member Stephens, Commission Member Noble, and Commission Member Adams
Excused:	2 -	Commission Member Berg, and Commission Member Reid
Absent:	1 -	Commission Member Shirrell

IV. PUBLIC BUSINESS FROM THE FLOOR

No public business from the floor was presented at this time.

V. NEW BUSINESS

1. Travel Incentive Program

Economic Development Director, Martha Barberio, introduced the topic of the Travel Incentive Program. She stated that she was informing the commission that the program has begun and that there have been over 4,000 vouchers download. Ms. Barberio goes on to say that the ability to download vouchers is on pause until the Council meeting after the 4th of July weekend where Council could approve more funding for more vouchers to be downloaded. She reported that over 500 of the vouchers have been

submitted and processed for reimbursement at this time and about 43 businesses participating in the program. She further reported that businesses are to turn in receipts once a week but that some have requested a biweekly schedule of whom were approved for this schedule. The first round of checks went out last Friday. It was reported that rounding up to the full $50 regardless of what was spent was requested by a business but was denied. Ms. Barberio stated that she reached out to businesses for testimonies for reporting on the program and she received some constructive criticism and mostly positive remarks from about 10 businesses. She reported that businesses are very pleased with the program.

Commissioner Meredith Noble asked if there was a distinction between locals and visitors as far as who is submitting and using the vouchers. Ms. Barberio stated that locals are using the vouchers but that there is no distinction other than personally knowing someone on the list. She reported the people who are abusing the system and downloaded multiple vouchers. She stated that she reached out to these people to tell them not to use their vouchers, as well as letting participating businesses being aware of the “naughty” list of offenders. Commissioner Noble requested that should the vouchers reopen putting a zip code on the vouchers to know where people are from. Ms. Barberio stated that this could be added and that the person’s city was going to be added to the vouchers. She reported that there is also survey of which about 500 people have taken the survey. Within this survey, it asks where a person is from and if this is the first time in Valdez. Commissioner Noble requested a zip code instead of a city because it would be easier to input. She then congratulated Ms. Barberio on the success of the program.

VI. REPORTS

1. Mayor’s Task Force update on projects

Ms. Barberio reported that this was just an update for commissioners and asked for any questions from the commissioners. Commissioner Stephens requested questions from the commissioners. There were no questions at this time.

2. Branding Report

Commissioner Stephens introduced the branding project and Jesse and Abby from Spawn Ideas who presented the current status of the branding project. Jesse presented a PowerPoint to show the progress of the project. He then reached out for any questions. Commissioner Noble thanked Spawn for their worked and stated that she will need some processing time before presenting any comments or questions. Commissioner Stephens and Ms. Barberio stated that questions and comments can be submitted at brandvaldez.com, as well as channel any questions through Ms. Barberio can also be done. Commissioner Stephens requested any other questions. There were no other questions at this time. Commissioner Stephens thanked Spawn for their time. Jesse made a final statement that the copywriter is currently coming up with taglines and what was presented are not taglines.

3. Senior Housing

Ms. Barberio reported that the project is ongoing and wanted to keep commissioners involved. Commissioner Rhonda Wade asked if this project was moving forward and asked if this was the area by Black Gold. Ms. Barberio corrected Commissioner Wade

in that this is about the Senior Housing over by the Senior Center and not the other housing project. She stated that Council has already approved this to move forward and that the senior housing is a higher need and that the regular housing will hopefully come in after that. Commissioner Wade asked if these are the same people who did SoundView apartments. Ms. Barberio confirmed this question. Commissioner Wade asked for clarification that these two projects are completely separate. Ms. Barberio confirmed that the senior housing and the other housing project are separate projects and reports.

VII. COMMISSION BUSINESS FROM THE FLOOR

No commission business from the floor was presented at this time.

VIII. ADJOURNMENT

With no further comments, Commissioner Stephens adjourned the meeting at 8:06pm.

_____

Colleen Stephens, Chairperson

_____

Brianne Skilbred, Executive Assistant

DRAFT

File #: 21-0386, **Version:** 1

ITEM TITLE:
ACOE Project at Robe Lake

SUBMITTED BY: Martha Barberio, Economic Development Director

FISCAL NOTES:

Expenditure Required: N/A
Unencumbered Balance: N/A
Funding Source: N/A

RECOMMENDATION:

Receive and File

SUMMARY STATEMENT:

Mike Wells spoke with the City Manager and has had contact with the Core of Engineers about the possibility of the City partnering with VFDA on a project. The project relates to studying conditions for Salmon run on Robe Lake. The possibility exists that there is a need for adding water to the Lake to enhance the long-term improvement of salmon habitat in Robe Lake. I believe this project has both Economic and Planning and Zoning implications.

The City Manager would like the Planning & Zoning Commission, as well as, the Economic Diversification commission to weigh in on this project and, if the commissions are on board, back a Resolution of Support that will be brought forward and presented to City Council on August 3rd. At this time, the City is unaware about the a potential expenditure request for the project because the City believes Mr. Wells thinks if he can get the Tatitlek Corporation (or possibly Chugach Corporation) to partner on the project much of the local match will be waived.

VALDEZ FISHERIES DEVELOPMENT ASSOCIATION, INC.
SOLOMON GULCH HATCHERY

P.O. Box 125 Valdez, AK. 99686 1815 Mineral Creek Loop Road Valdez, AK 99686
(907) 835-4874 Fax (907) 835-4831 Mike.Wells@valdezfisheries.com

July 5, 2021

COL Damon Delarosa
U.S. Army Corps of Engineers – Alaska District
2204 3rd St.
JBER, AK 99506-1518

RE: VFDA Letter of Interest for Robe Lake Habitat Restoration

Dear Colonel Delarosa,

This Letter of Interest is to request the assistance of the U.S. Army Corps of Engineers (ACOE), under Section 206 of the Water Resources Development Act of 1996, *Aquatic Ecosystem Restoration,* for planning and designing of a project for the long-term improvement of salmon habitat in Robe Lake located in Valdez, Alaska.

The Valdez Fisheries Development Association, Inc. (VFDA), established in 1980, is a 501(c)3 not for profit organization formed to develop renewable fisheries resources for the benefit of sport, commercial, subsistence, and personal use fisheries in Alaska. VFDA operates the Solomon Gulch hatchery and has a long history of maintaining salmon spawning habitat in the Robe Lake watershed to protect and enhance indigenous Coho and Sockeye salmon stocks, which are harvested by local residents and are a donor stock for VFDA's hatchery programs.

Robe Lake is the largest fresh water lake in the Port Valdez area with an historic size of approximately 682 acres. It is a very shallow lake with a mean depth of just 3.12 meters and only 5 meters at its deepest point. Three tributaries feed the lake: Brownie creek, Old Corbin creek, and Deep creek. Prior to 1956, the main channel of Corbin creek, and on occasion the Valdez Glacier Stream, flowed into the lake. This cold and turbid glacial water kept the lake bottom covered in silt and prevented light from penetrating its shallow depth, keeping aquatic vegetation in check. This inflow of water was estimated to provide a complete flushing of the lake about once a month. In 1956, the main stem of Corbin creek was redirected out of the lake by the City of Valdez to protect the Richardson Highway from wash-outs; unfortunately, this action changed the lake ecology and within ten short years, the negative environmental effects of this action became apparent. By 1982, the estimated flushing rate slowed to once every five months. VFDA has observed that the aquatic plant growth is rapidly increasing. If left unchecked, this growth may greatly reduce or completely shut down the lake's ability to support the successful spawning of its indigenous species.

VFDA seeks assistance from the ACOE to find a long-term solution to reduce the growth of aquatic vegetation and return the lake to its previous condition. This could be accomplished through rechanneling some of the original inflow of Corbin Creek into the lake. Other

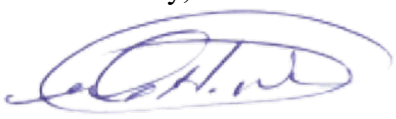
considerations to improve existing salmon habitat may be to improve existing stream systems through mechanical excavation and rechanneling.

Robe Lake lies within the municipality of Valdez, Alaska. As such, the lake is heavily used by the community for recreation, waterfowl hunting, fishing, and for float plane operations. In addition, the municipality has two residential housing developments in proximity to the Robe Lake flood plain that may be impacted by future changes in the lake's hydrology. Acceptability of recommended solutions will need to be carefully considered to accommodate concerns by the City of Valdez and its residents.

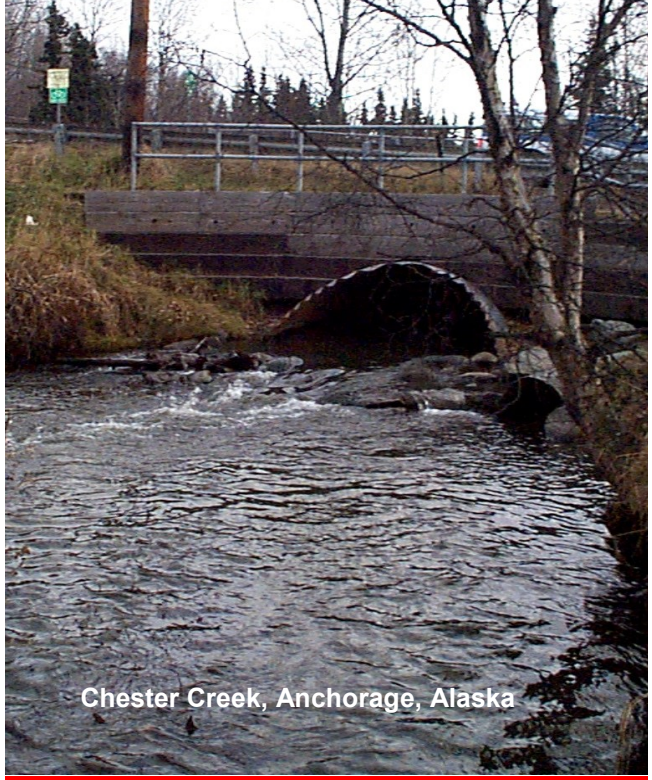
Finally, VFDA is aware of the requirements for nonfederal contributions of 50% to determine feasibility, and up to 35% for design and construction of any proposed solution. As a small not for profit entity, VFDA has limited funds to participate as the sponsor and because the cost of the projects next steps are not yet defined, participation beyond the Federal Interest Determination will be contingent on VFDA's ability to identify and recruit other non-federal partners to share in the Cost Shared Feasibility Study, project design and construction, costs for "Lands, Easements, Right-Of-Way, Relocations and Disposal Areas" (LERRD), costs to demonstrate ownership of such, and cost of any operation and maintenance of the project.

Your consideration of this request is greatly appreciated. We are very excited that the ACOE has taken an interest in bringing a long-term solution to help slow the decline of Robe Lake salmon habitat. Please contact me if you have further questions.

Sincerely,



Mike H. Wells,
Executive Director



Chester Creek, Anchorage, Alaska

How does the process start?

The Corps may begin a Section 206 or 1135 study after it receives a formal letter of request from the prospective sponsoring community. A sample letter of request is included on the back of this brochure.

The letter of request and any other inquiries about the Section 206 Aquatic Ecosystem Restoration Program or Section 1135, Modifications of Corps Projects to Improve the Quality of Fish and Wildlife Habitat, should be sent to the address below.

U.S. Army Corps of Engineers, Alaska District
ATTN: CEPOA-PM-C-PL
P.O. Box 6898
Joint Base Elmendorf-Richardson,
Anchorage, AK 99506-0898
Email: POA.AKCAP@usace.army.mil

August 2016

Sample letter to request a study

District Commander
Alaska District, U.S. Army Corps of Engineers
ATTN: CEPOA-PM-C-PL
P.O. Box 6898
Joint Base Elmendorf-Richardson, AK 99506-0898

Dear Sir:

This letter is to request the assistance of the U.S. Army Corps of Engineers under Section 206 of the Water Resources Development Act of 1996, Aquatic Ecosystem Restoration, or Section 1135 of WRDA 1886, Modifications of Corps Projects to Improve the Quality of Fish and Wildlife Habitat, in planning and designing a project for ecosystem restoration at (location) in (city or town, etc.).

Briefly described the potential project, why it is being requested, its approximate size, and any specific problems or needs.

We understand we would be required to pay the non-Federal cost share for both planning studies and project implementation.

Thank you for considering this request. Please contact (name, address, phone, email) for more information.

Sincerely,

Name
Title

Alaska District
U.S. Army Corps of Engineers

Section 206 and Section 1135

Ecosystem Restoration Programs

Under the U.S. Army Corps of Engineers Continuing Authorities Program (CAP), **Section 206 of the Water Resources Development Act (WRDA) of 1996, Aquatic Ecosystem Restoration,** provides authority for projects that restore degraded ecosystem function and values (including hydrology and plant and animal communities, or portions of them) to a less degraded ecological condition.

Section 1135 of WRDA 1886, Modifications of Corps Projects to Improve the Quality of Fish and Wildlife Habitat provides the authority to modify the structure or operation of an existing Corps project.



Gold Creek, Juneau, Alaska

What the Corps of Engineers can do

Projects under Section 206 should restore degraded ecosystem functions and values, including hydrology and plant and animal communities or portions of them, to a less degraded ecological condition. Examples of aquatic ecosystem restoration projects might include enabling salmon to reach blocked spawning grounds, enhancing nesting territory for waterfowl, or restoring flow to a degraded stream. The maximum Federal limit is $10 million per project, including study costs. The Corps pays for the initial $100,000 of the study cost, with the remaining cost shared 50/50 with the non-Federal sponsor. Implementation costs are shared 65 percent Federal, 35 percent non-Federal with the non-Federal sponsor.

Projects under Section 1135 should concentrate on engineering and other technical solutions because these projects must modify the structure or operation of an existing Corps project. The maximum Federal limit is $10 million per project, including study costs. The Corps pays for the initial $100,000 of the study cost, with the remaining cost shared 50/50 with the non-Federal sponsor. Implementation costs are shared 75 percent Federal, 25 percent non-Federal with the non-Federal sponsor.



Duck Creek, Juneau, Alaska



Chester Creek, Anchorage, Alaska

Fast Facts About Sections 206 and 1135

	Section 206	Section 1135
Project Purpose	Restore aquatic habitat for fish and wildlife	Restore fish or wildlife habitat impacted by an existing Corps project
Who May Sponsor	Public agency (e.g. city, state) , some private interests or large non-profit organization	Same as Section 206
Maximum Federal Cost	$10 million, including planning studies	Same as Section 206
Sponsors Responsibilities	Acquire needed land, easements, rights-of-way etc; operate and maintain project; and be willing and able to provide non-Federal cost share.	Same as Section 206
Cost Sharing	50% planning after first $100,000 Federal; 65% Federal, 35% non-Federal implementation costs	50% planning after first $100,000 Federal; 75% Federal, 25% non-Federal implementation costs