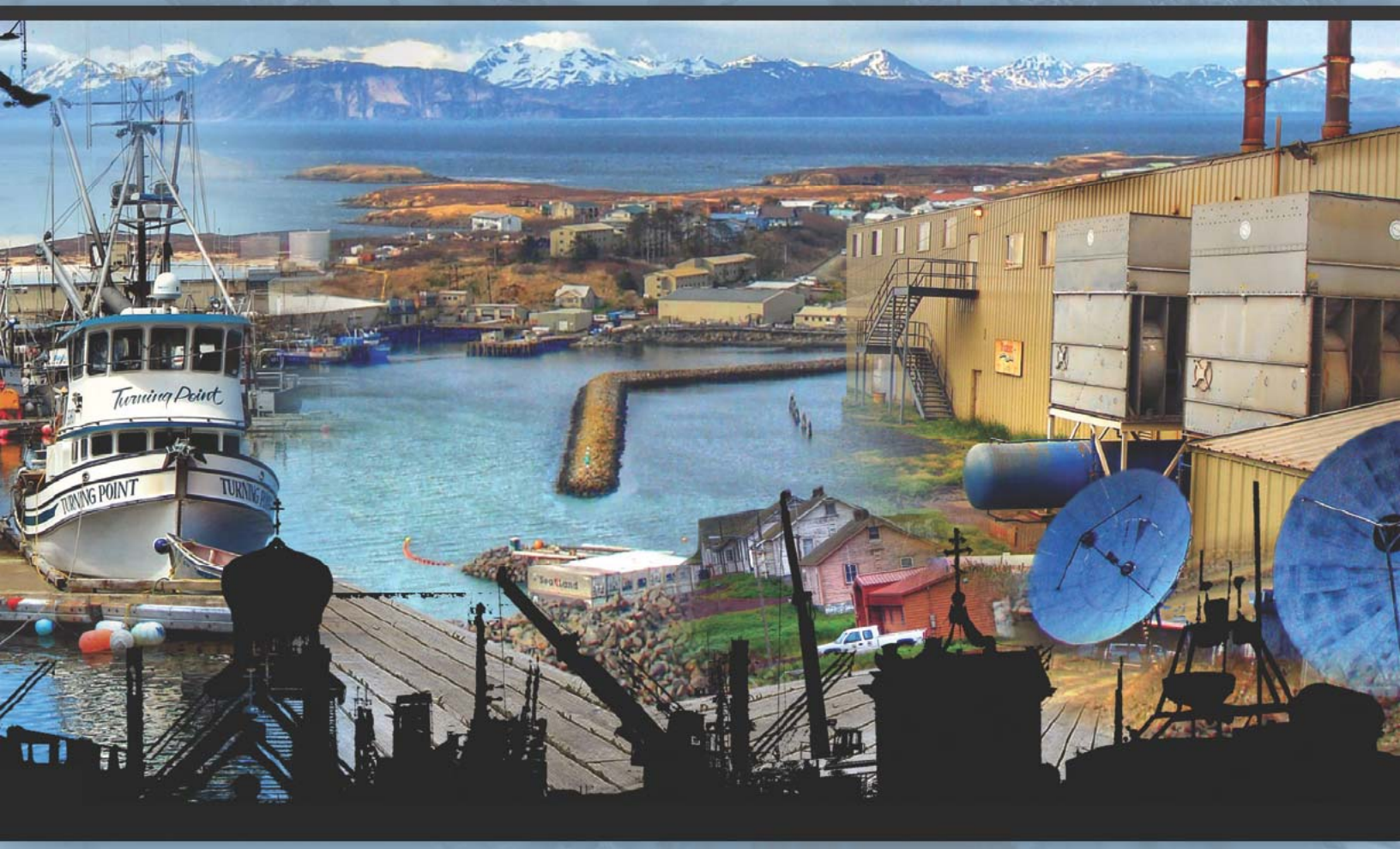
COMPREHENSIVE BASELINE COMMERCIAL FISHING COMMUNITY PROFILES: SAND POINT, ADAK, ST. PAUL AND ST. GEORGE, ALASKA

FINAL REPORT



PREPARED FOR:

North Pacific Research Board and
North Pacific Fishery Management Council

PREPARED BY:

EDAW | AECOM **with** northern economics inc.

June 2008

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Abstract: This document is a second set of community profiles that draw largely from the format and lessons learned during the production of NPRB Project 318, "Pilot project for the development of comprehensive baseline commercial fishing community engagement and dependency profiles for the Bering Sea, Aleutian Islands, and Western Gulf of Alaska regions." Similarly to NPRB Project 318, this current project (640) was funded by the North Pacific Research Board and the North Pacific Fishery Management Council.

The goal of this current project was, in part, to utilize the previously designed template for the collection and analysis of community profile information for fishing communities of the North Pacific region, to expand that template to construct four more key fishing community profiles for communities representing a wide range of commercial fishing dependency, and to increase the overall efficiency of socioeconomic analysis required under the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Act (MSA).

The community profiles contained in this volume include those for Sand Point, Adak, St. Paul, and St. George, Alaska. Through the use of publicly available demographic and commercial fishing data, numerous interviews with community leaders and residents in all four communities, and photographs of the natural and cultural environment, we were able to produce community profiles that describe the engagement and dependency each community has with commercial fishing for a wide range of sectors in their respective local economies.

Key words: Socioeconomic; Community; Sand Point; Adak; St. George; St. Paul; Aleutian Islands; Pribilof Islands; Commercial Fishing; Ethnographic

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CHAPTER 1.0
INTRODUCTION

1.1 OVERVIEW AND STUDY CHRONOLOGY

This project was developed under the title *Comprehensive Baseline Commercial Fishing Community Engagement and Dependency Profiles: Adak, St. George, St. Paul, and Sand Point, Alaska*, and funded by the North Pacific Research Board (Project 640) and the North Pacific Fishery Management Council (Contract NEPA-1-06). The goal of this project was, in part, to provide a companion to the *Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove and Kodiak, Alaska* (EDAW 2005), which established and utilized a template for the collection and analysis of community profile information for fishing communities of the North Pacific region. The earlier study was also funded jointly by the North Pacific Research Board (Project 310) and the North Pacific Fishery Management Council (Contract AFA-1-03).[1] As detailed in subsequent sections of this introduction, the current work included a multi-method approach to data collection that primarily occurred from January through August 2007, with writing and analysis (and some additional data collection) occurring through January 2008 when the final report was initially submitted. This version of the final report (June 2008) incorporates revisions made to address additional review comments received both from the communities and the study sponsors.

The objective in adding an additional four expanded profiles was to provide resource managers and federal decision makers with additional information relevant to community impact analysis on an ongoing and timely basis. This project, as the one before it, was intended to result in data and an analytic framework that will have direct applicability to the community level analysis of social and economic implications of rights-based and capacity reduction management initiatives as well as other management actions. The results of this work are also intended to provide information central to the understanding of community engagement in, and dependency on, the range of federally managed commercial fisheries, which will be useful as a basis for design of management alternative features directed toward fostering the sustained participation of fishing communities during changes in resource management strategies or under individual management actions. An explicit goal of this research was to reduce duplication of effort on issue-by-issue socioeconomic and social impact analyses that are being conducted for federal resource management agencies, and to increase the overall efficiency of socioeconomic analysis required under the National Environmental Policy Act (NEPA) and the Magnuson-Stevens Act (MSA).

[1] Both of these studies, in turn, built upon a number of different, less comprehensive efforts at compiling baseline community profiles in this region, including some compiled by the same study team for a variety of fishery management social impact assessments, most notably those that appeared in Appendix 3: Social Impact Assessment to the Bering Sea Aleutian Islands Crab Fisheries Final Environmental Impact Statement that was completed by the National Marine Fisheries Service, Alaska Region, and the North Pacific Fishery Management Council (August 2004) for the analysis of potential BSAI crab rationalization programs. This current report is designed as a stand-alone work; any technical information contained in study progress reports is incorporated into this document.

These community profiles are guided, in part, by National Standard 8 under the MSA. National Standard 8 is part of a set of standards that apply to all Fishery Management Plans (FMPs) and regulations promulgated to implement such plans. Specifically, National Standard 8 states that:

> *Conservation and management measures shall, consistent with the conservation requirements of this [Magnuson-Stevens] Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities and (B) to the extent practicable, minimize adverse economic impacts on such communities (Sec. 301(a)(8)).*

The MSA defines a "fishing community" as "… a community which is substantially dependent on or substantially engaged in the harvest or processing of fishery resources to meet social and economic needs, and includes fishing vessel owners, operators, and crew, and United States fisher processors that are based in such community" (Sec. 3 [16]). The National Marine Fisheries Service (NMFS) further specifies in the National Standard guidelines that a fishing community is "… a social or economic group whose members reside in a specific location and share a common dependency on commercial, recreational, or subsistence fishing or on directly related fisheries dependent services and industries (for example, boatyards, ice suppliers, tackle shops)" (63 FR 24235, May 1, 1998). "Sustained participation" is defined by NMFS as "… continued access to the fishery within the constraints of the condition of the resource" (63 FR 24235, May 1, 1998).

1.2 THE STUDY COMMUNITIES

Four Alaska fishing communities were chosen to be profiled in this second volume. The genesis of this project was the realization that while all are significantly engaged and dependent upon commercial fisheries of the Bering Sea Aleutian Islands (BSAI) and/or western Gulf of Alaska, the nature of their individual engagement and dependency varies greatly and is tied to the particular constellation of sectors and subsectors present in combination with other features of the community, including demographic and economic attributes. While each of these communities is fundamentally dependent on commercial fishing, a common fishery management action can have diametrically opposed impacts in the different communities, based on the attributes of the local fleet, local processing sector, local support service sector development, and local governance and public revenue structures, among other factors. These communities, and the main reasons for their selection, are:

- **Sand Point** – as a community with the largest residential fleet in the Aleutian/Pribilof Islands region and as a substantial processing center. Sand Point is a single-processor community, but its geographic placement provides its fleet the opportunity to be heavily involved in a wide range of fisheries, and its processor to receive catch from a range of local and non-local vessels participating in a variety of regional fisheries.

- **Adak** – as a former military community transitioning to a civilian community economically focused primarily on commercial fishing and related support services. The infrastructure once integral to military readiness is being redeveloped by local and

regional entities to support harvesting and processing activities and to foster other commercial and governmental activity.

- **St. Paul** – as a community developing its harvesting capabilities largely through management of its exclusive Community Development Quota (CDQ) and local processing through a combination of CDQ and outside entity activity. Like Sand Point, St. Paul is a single-shore processor community, but St. Paul also hosts a number of floating processors that anchor in its protected waters. While the local fleet is largely dependent on the halibut fishery, local processing is heavily reliant on the crab fishery, the harvest of which is undertaken largely by non-local vessels.

- **St. George** – as a community developing its harvesting and exploring processing capabilities through a cooperative management agreement between neighboring regional CDQ communities. Unlike St. Paul, St. George does not currently have a processor within its community and must tender its local fleet catch to St. Paul's processor.

Figure INT-1 provides a map of the location of these four communities. These communities vary in their geographic relation to the fishery; their historical relationship to the fishery; the nature of their contemporary engagement with the fishery through local harvesting, processing, and support sector activity or ownership; their local governmental structures; their participation in the CDQ program; and their contemporary social and economic structures. Each of these factors alone and in combination influences the direction and magnitude of potential social impacts associated with any particular fishery management initiative.

1.3 INFORMATION IN THE COMMUNITY PROFILES

The community profiles contain several different types of information. In broadest overview, this information comprises both quantitative data on fisheries engagement (and dependency within sectors) and narrative data, which provide detailed descriptions of the local community context, in turn enabling the reader to put the quantitative data in perspective. One of the goals of this project was to strike a balance between easily accessed data that are comparable across communities and data unique to specific communities that require more intensive field-based collection.[2] The specific types of information include:

- Detailed narrative on community socio-demographic context and harvest sector, processing sector, and support service sector entities and activities. Summary information is provided on public revenues as well.
- Quantitative information on fisheries harvest and processing activities.
- Spatial information on harvest activities.
- Photographs of the community and the various sectors.

[2] Field data collection took place in Sand Point and Adak in May 2007 and in St. Paul and St. George in August 2007.

1.3.1 Population and Demographics

Each profile contains a detailed discussion on community population and demography, with information presented on the history of the community, total population, ethnicity, and community structure and housing types especially as relevant to, or influenced by, commercial fishing activities such as the presence of a local fleet or processing capacity. Table INT-1 provides summary information on population and housing type for the communities. In each of the communities, group quarters housing is associated with processing labor force; however, as shown, these communities range widely in their overall distribution of population by housing type. As developed in the individual profiles, this distribution directly correlates with the type of development related to commercial fishing seen in the community. Processing employees in Sand Point, while coming into contact with local community members more regularly, continue to live in group quarters due to a combination of factors, including a processing workforce not typically drawn from the local labor pool and the relative scarcity of other residential housing, although at least some have established long-term relationships with the community. In Adak, classic processor group quarters dormitories do not exist and a surplus of residential housing is used to house processors. In St. Paul, processing employees live in group housing and have little contact with other members of the local community during their stay through the season. Finally, St. George currently does not have an onshore processing facility and has not recently seen inshore floating processing, such that no processing employees currently live in the community.

Table INT-1. Population and Group Quarters Housing Information by Community, 2000

Community	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
Sand Point	952	340	35.7%	612	64.3%
Adak	316	0	0.0%	316	100.0%
St. Paul	532	22	4.1%	510	95.9%
St. George	152	0	0.0%	152	100.0%

Source: U.S. Census Bureau 2007b

Figure INT-2 provides a visual summary of community demographic comparisons. This graphic displays the proportion of the population in group quarters, the Alaska Native and non-Native population split in non-group quarters housing (that is, among the long-term residents of the community), and the total minority population in group quarters housing (of relevance to fisheries development based on environmental justice considerations). As is also shown, these are indeed very different communities. The Alaska Native population is highest by total number in St. Paul, while the highest proportion of Alaska Natives in non-group quarters housing is in St. George. Adak has the smallest total number of Alaska Natives living in non-group quarters and also has the smallest proportion of Alaska Natives relative to the total population. Group quarters housing exists in only two of the communities, Sand Point and St. Paul, and the demographics for people living in group quarters housing vary widely between these two communities, although this difference is most likely an artifact of seasonal variation in employment during the time the census was taken.

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Source: NOAA, 2003

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1 inch equals 100 miles

Figure INT-1
Location of Study Communities

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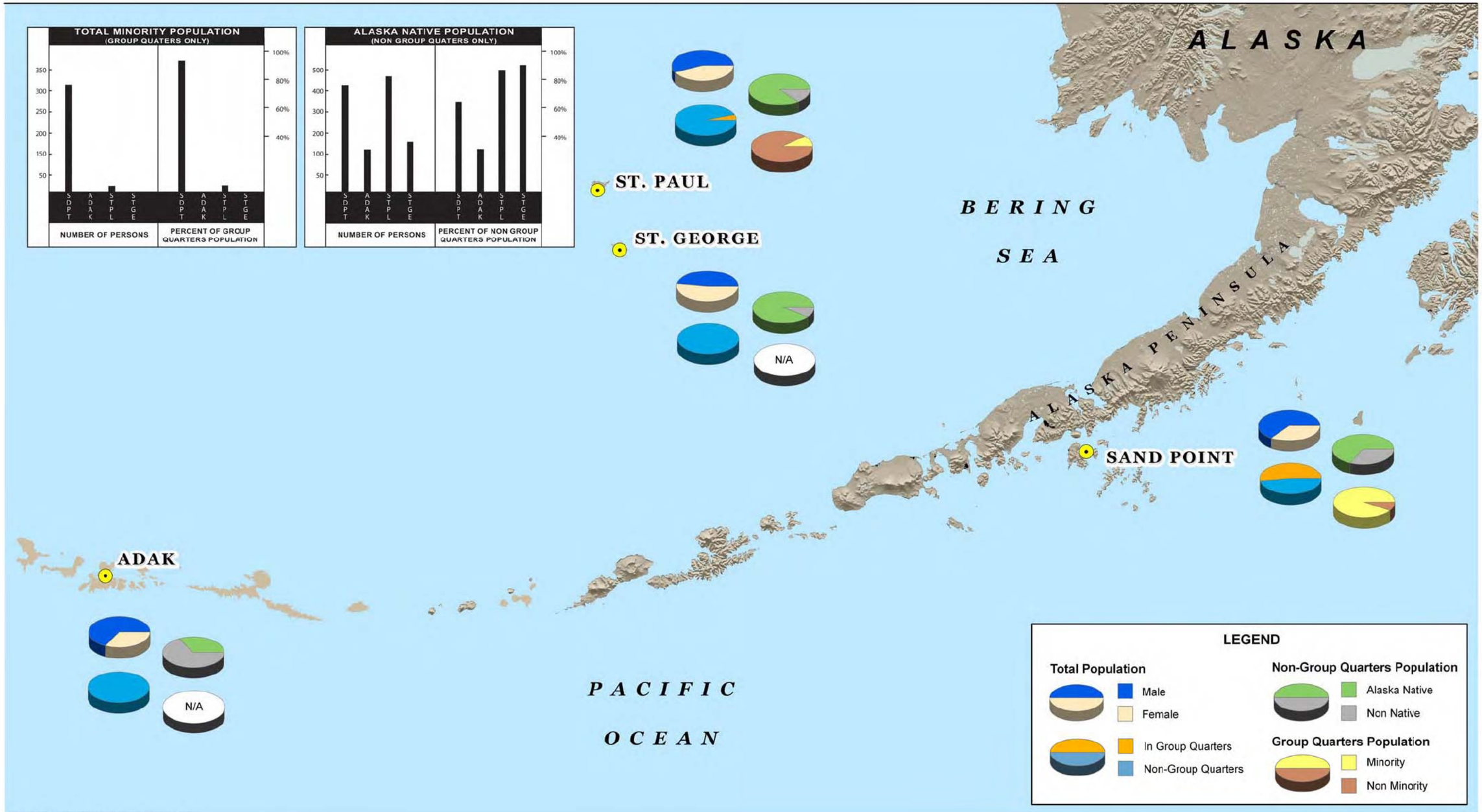

Source: NOAA, 2003; U.S. Census Bureau 2000

70 35 0 70 Miles

1 inch equals 70 miles

Figure INT-2
Community Demographic Comparisons, 2000

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Age and sex information is also presented for each community and is summarized in Table INT-2. Sand Point and Adak have marked differences in male-to-female ratios. While in Sand Point this difference can be attributed to fisheries development, the difference in Adak is most likely related to the military and environmental remediation contractor population present at the time of the census. The communities of St. Paul and St. George are more indicative of a largely residential population. The school enrollment statistics for each community are also presented in the individual profiles, along with a discussion of the influence of fisheries development on family versus adult worker migration patterns.

Table INT-2. Population by Age and Sex by Community, 2000

Attribute	Sand Point		Adak		St. Paul		St. George	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Male	593	62.3%	205	64.9%	294	55.3%	73	48.0%
Female	359	37.7%	111	35.1%	238	44.7%	79	52.0%
Total	952	100.0%	316	100.0%	532	100.0%	152	100.0%
Median Age	36.5 years		35.2 years		31.9 years		33.0 years	

Source: U.S. Census Bureau 2007b

Table INT-3 presents summary household information presented for each community. As shown, the communities also vary widely along a number of household and income dimensions, with Adak displaying a large number of vacant housing units related to mothballed base housing. Sand Point also demonstrates a higher median family income than Adak and St. Paul, due largely to the degree of direct sector and support services development. The high median incomes in St. George can most likely be attributed to a relatively high level of employment at the time of the census—a condition that is no longer typical in the community.

Table INT-3. Selected Household Information by Community, 2000

Community	Total Housing Units	Vacant Housing Units	Total Households	Average Persons Per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
Sand Point	282	53	229	2.67	$55,417	156	3.17	$58,000
Adak	884	725	159	1.99	$52,727	61	2.90	$53,889
St. Paul	214	37	177	2.88	$50,750	123	3.44	$51,750
St. George	67	16	51	2.98	$57,083	42	3.29	$60,625

Source: U.S. Census Bureau 2007b

1.3.2 Quantitative Description of the Harvest Sector: Local Vessels and Permit Holders

Quantitative information on the local vessel fleet, as represented by local vessel ownership, is presented for each community. This information is derived from the data on vessels owned by residents of any given community that are collected by the Commercial Fisheries Entry Commission (CFEC) when owners renew their vessel registration. These data are not considered confidential and are available on the internet at http://www.cfec.state.ak.us/fishery_statistics/permits.htm. By request, analysts at CFEC extracted data for residents of the profiled

communities for the years 1995 through 2006 to show trends over that time span. Table INT-4 summarizes the information for the most recent available year (2006) and shows the large difference between the study communities in terms of the size and attributes of the local fleets. As discussed in the individual community profiles, however, there were some challenges with these data, where vessels owned by individuals not residing in the community would show up in the individual community statistics. This could only be uncovered through specific knowledge of the communities and is more problematic for communities with smaller fleets where the presence or absence of a few vessels can have a dramatic impact on overall community data.

Table INT-4. Characteristics of Vessels Owned by Residents by Community, 2006

Characteristics	Community			
	Sand Point	Adak	St. Paul	St. George
Total Number of Vessels	135	6	16	3
Number of Vessels Fishing	133	6	16	3
Number of Vessels by Size				
0-26 feet length overall	66	3	6	3
27-32 feet length overall	9	2	8	-
33-49 feet length overall	40	-	2	-
50-59 feet length overall	19	1	-	-
60-124 feet length overall	1	-	-	-
125+ feet length overall		-	-	-
Average Age of Vessels (years)	24	27	19	6
Number of Vessels by Hull Type				
Aluminum	49	5	13	3
Fiberglass/Plastic	59	1	3	-
Rubber		-	-	-
Iron/Steel/Alloy	7	-	-	-
Wood	20	-	-	-
Number of Vessels with Refrigeration	25	-	1	-
Number of Vessels Using Diesel	83	3	10	-

Source: CFEC Vessel Registration Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Information on the distribution of permit holders is also presented for each community. The data in the tables in the individual profiles provide an indication of the diversity of ownership permit patterns based on major fishery types. Table INT-5 displays summary information on the number of persons in each community who own permits in one, two, three, or all four of the major fishery groups in Alaska for 2006.

Information is also presented on estimated earnings by permit holders by community. This information is based on the annual CFEC data report called "Permit and Fishing Activity by Year, State, Census Division, or Alaskan City." As described at the CFEC site on the internet at http://www.cfec.state.ak.us/fishery_statistics/earnings.htm, these reports, commonly referred to as the Census Area Reports, show information on the number of permits issued and fished; the number of permit holders; and the number of fishermen, pounds, and estimated gross earnings. In 2005, CFEC issued and tracked 174 different fishery permits, each representing a specific

Table INT-5. Distribution of Permit Holders across Fisheries by Community, 2006

Fishery	Sand Point	Adak	St. Paul	St. George
Persons with Permit in Only One Major Fishery Group				
Salmon (SM)	30		-	-
Groundfish (GF)	10	4	-	-
Halibut and Sablefish (HS)	5		20	4
Crab/all other species(CO)	1	-	-	-
Persons with Permits in Two Major Fishery Groups				
SM, HS	10	-	1	-
SM, GF	15	-	-	-
SM, CO	3	1	-	-
HS, GF	2	1	-	2
HS, CO	-	-	-	-
GF, CO	-	-	-	-
Persons with Permits in Three Major Fishery Groups				
SM, HS, GF	15	-	-	-
SM, HS, CO	-	-	-	-
HS, GF, CO	-	-	-	-
Persons with Permits in All Major Fishery Groups				
SM, HS, GF, CO	8	-	-	-
Total of All Permit Holders				
All Fisheries	99	6	21	6

Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

fishery as defined by primary species, gear, area, and vessel size. Table INT-6 shows a summary of the CFEC Census Area Reports by community for 2005, the most recent year available for the CFEC Census Area Reports at the time of compilation of this report (2007), in which specific permits are aggregated into 14 gear and species groups. For consistency, the same 14 groups are shown for each community in this report regardless of activity levels. Detailed tables that show each of the permit types owned and fished by residents are contained in Appendix A. As described in the individual community profiles, there were problems with permit addresses not corresponding with actual residences that, in turn, confounded interpretation of economic results. This occurs in St. Paul where a crabbing permit appears in the data for 1 year, only to disappear the next. As was the case with the vessel data, it would appear there is no way to screen for these local permit issues other than acquiring a close working knowledge of the communities themselves.

While CFEC makes every effort to provide as much information as possible in the Census Area Reports, they do not release catch and earnings information for a particular permit if fewer than four permit holders participate in the fishery in a given year. Because of these confidentiality restrictions, catch and revenue estimates for smaller communities for a particular permit type are often not available. In these cases, the study team used an algorithm based on average catch and earnings for those permits to provide estimates where data are otherwise not reported. (A more detailed explanation of the algorithm used is provided in the introduction to the detailed table in Appendix A). By assuming that "confidential data" for the community are likely to be close to the average for the permit, the team is able to produce "reasonable estimates" of total catch and earnings, even when exact data are not available.

Table INT-6. Summary Catch and Earnings Estimates for Permit Holders by Species Group by Community, 2005

Fishery	Sand Point	Adak	St. Paul	St. George
Permits Fished				
Halibut	29	1	17	17
IFQ Sablefish	-	1	-	-
Salmon Seine	20	-	-	-
Salmon Drift Net	7	-	-	-
Salmon Set Net	34	-	-	-
Salmon Other Gear	-	-	-	-
Herring	-	-	-	-
Groundfish Longline	-	2	-	-
Groundfish Jig	26	1	-	-
Groundfish Pot	21	-	-	-
Groundfish Trawl	13	-	-	-
Tanner Crab	29	-	-	-
King Crab	-	-	-	-
All other fish/Shellfish	-	-	-	-
Total	179	5	17	17
Estimated Gross Revenue (dollars)				
Halibut	$1,548,250.75	$20,120.58	$1,075,199.00	$40,241.17
IFQ Sablefish	-	$23,543.00	-	-
Salmon Seine	$3,571,934.00	-	-	-
Salmon Drift Net	$499,963.90	-	-	-
Salmon Set Net	$2,824,649.00	-	-	-
Salmon Other Gear	-	-	-	-
Herring	-	-	-	-
Groundfish Longline	-	$111,056.57	-	-
Groundfish Jig	$232,396.00	$4,124.00	-	-
Groundfish Pot	$1,231,799.00	-	-	-
Groundfish Trawl	$3,959,749.00	-	-	-
Tanner Crab	$428,403.68	-	-	-
King Crab	-	-	-	-
All other fish/Shellfish	-	-	-	-
Total	$14,297,145.33	$158,844.15	$1,075,199.00	$40,241.17
Percentage of Estimated Gross Revenue				
Halibut	10.83%	12.67%	100.00%	100.00%
IFQ Sablefish	-	14.82%	-	-
Salmon Seine	24.98%	-	-	-
Salmon Drift Net	3.50%	-	-	-
Salmon Set Net	19.76%	-	-	-
Salmon Other Gear	-	-	-	-
Herring	-	-	-	-
Groundfish Longline	-	69.92%	-	-
Groundfish Jig	1.63%	2.60%	-	-
Groundfish Pot	8.62%	-	-	-
Groundfish Trawl	27.70%	-	-	-
Tanner Crab	3.00%	-	-	-
King Crab	-	-	-	-
All other fish/Shellfish	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%

Source: CFEC 2007a, supplemented by Northern Economics, Inc.

Information on gross landing patterns of the local fleet and permit holders is also presented for each community. This is an important factor in characterizing the economic relationship of the local harvesters to the larger economy of the community. When a vessel owner or permit holder delivers catch to processors inside their home community, revenues will accrue to that community in different ways than if local vessel owners or permit holders deliver to processors outside of their home community (that is, to processors located in other communities). This would include both tax revenue accruing to local jurisdictions as well as private sector economic benefits deriving from activities related to the deliveries, such as processing, shipping, support service demand, and the like. Characterizations of landings by local vessels were based on information provided through a special information request made to the CFEC. In past profiles, breakouts were available by vessel owners and permit holders by species/fishery and gear type. The data were based on "residence" information maintained by CFEC on all persons who register vessels or own state-issued fishing permits, and on fish-ticket information originally provided to CFEC by the Alaska Department of Fish and Game (ADF&G). Landing location information—whether the landing was made inside or outside the community—was based on lists of processors in each community developed by the study team from a variety of sources, including ADF&G intent to operate files, ADF&G Commercial Operator Annual Reports, ADF&G Fish-Tickets, and from personal knowledge and experience dealing with Alaska fisheries. Due to the small scale of processing in three of the four communities in this set of profiles and confidentiality restrictions, however, this detailed landing value was not available for every community and only the total value for Sand Point can be displayed. This summary level information on landings inside and outside of the communities by their resident vessels is shown in Figure INT-3. While data for Adak, St. Paul, and St. George are considered confidential, it can be assumed in the communities of St. Paul and St. George that nearly 100 percent of landings are considered to take place within the community, as the local fleet in both of these communities is generally unable to make deliveries to ports outside of their respective home ports.

Crew member information is also presented for each community, as communities also directly benefit from the harvest sector through participation of residents as crew, as well as through the engagement of local vessel owners and permit holders. Beginning in 2000, CFEC has produced estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a Crew Member License with ADF&G. A full description of the report and information for communities across the state can be found in the CFEC report "Permit Holder and Crew Member Counts by Census Area & City of Residence" at http://www.cfec.state.ak.us/fishery_statistics/permits.htm. The estimates for crew members and permit holders are calculated as follows:

Crew Members

- Crew member license data for this report were provided by ADF&G. Note: any corrections, updates or changes made to the crew member license files will not appear in this report.
- Crew members who are permit holders in other fisheries are not required to purchase a crew license; therefore, they may not appear in the crew member license data.
- Individuals who, despite the above, had both a permit and a crew license are not counted as crew members in this report to avoid double counting.

- Crew members who did not provide a social security number when purchasing a crew license are not included in this report.
- Residency of crew members is based on the address they provided on their crew member license application.

Permit Holders

- Residency of permit holders is based on the residency claimed on their permit application.
- Only current holders of permits were included in this report.

Holders of vessel permits and special use permits such as experimental, test fishing, educational, reservation, and hatchery are excluded from this report. Summary information by community is provided in Table INT-7.

Table INT-7. Estimated Number of Permit Holders and Crew Members by Community, 2006

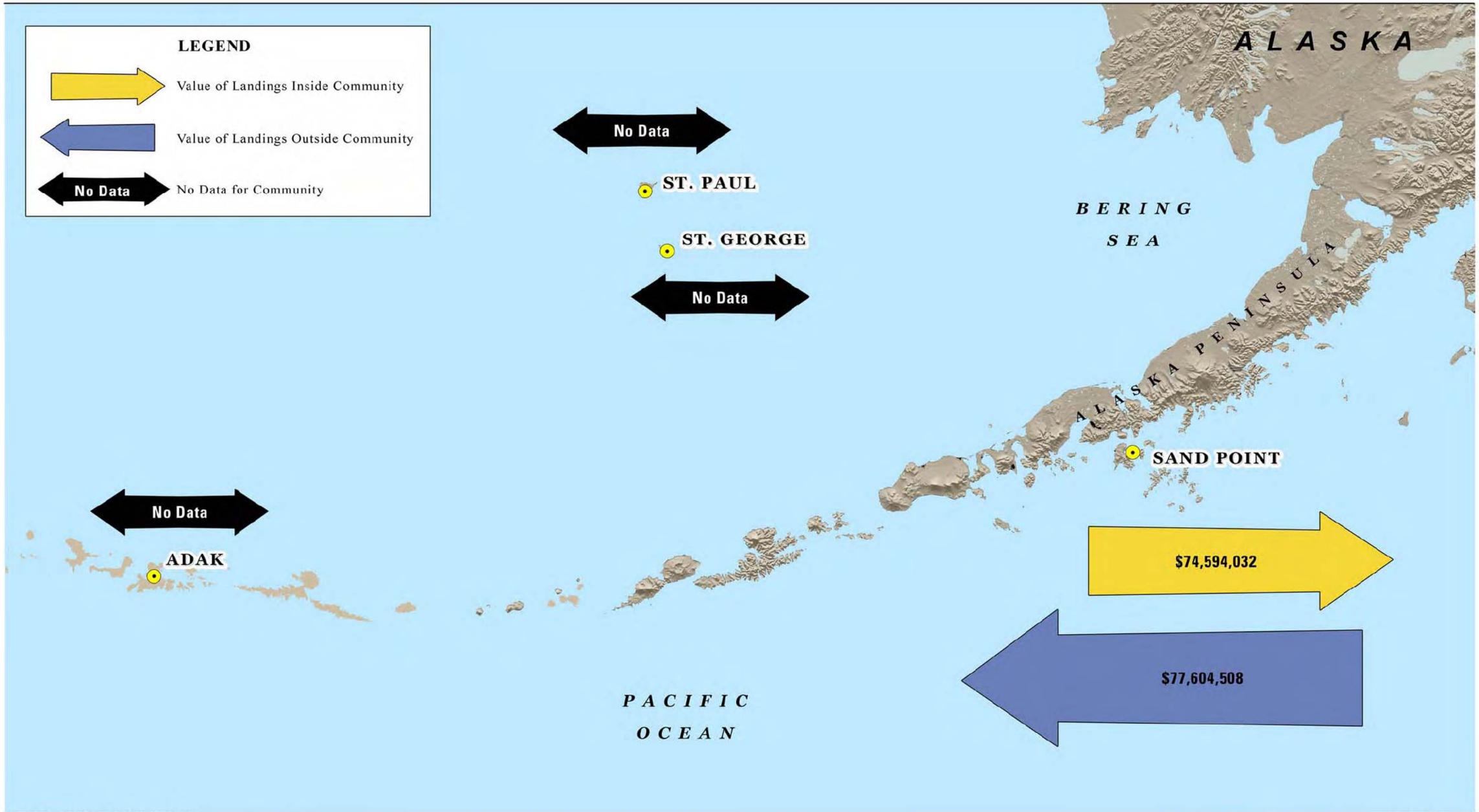
Community	Permit Holders	Crew Members	Total
Sand Point	97	113	210
Adak	6	7	13
St. Paul	22	31	53
St. George	6	5	11

Source: CFEC 2007b

1.3.3 Spatial Distribution of Harvester Effort

To the extent permitted within confidentiality restrictions, spatial distribution of harvest effort by local fleets was mapped for each community. Confidentiality restrictions prevent a comprehensive comparison of harvesting activity between communities for any specific fishery or gear type, however. For example, halibut fishing effort can be spatially displayed for Sand Point, St. Paul, and St. George but cannot be displayed for Adak. Additionally, groundfish harvesting effort can be displayed for Sand Point and Adak, but not for St. Paul and St. George. Figure INT-4 provides an overview of general harvesting effort for each community in a nonconfidential fishery specific to that community. Generally, the smaller communities of Adak, St. Paul, and St. George have a smaller footprint of harvesting effort than the larger community of Sand Point. Within each community profile, changes in patterns over time are shown, as well as a breakdown by gear type (when available).

While the use of spatial data was a central part of the effort on this project, these data continued to be problematic in several respects. Confidentiality restrictions did not permit a disclosure of the full footprint of activity for any of the communities; this was especially problematic for the communities with smaller fleets such as Adak, St. George, and St. Paul. For example, commercial halibut fishing vessels from St. Paul and St. George are permitted to go into any part of area 4C, yet the publicly disclosed information shows activity only in the statistical area



Source: NOAA, 2003; Northern Economics 2007

70 35 0 70 Miles

1 inch equals 70 miles

Figure INT-3
Comparison of Value of Landings Inside and Outside Home Community by Local Vessel Owners, 1995 - 2005

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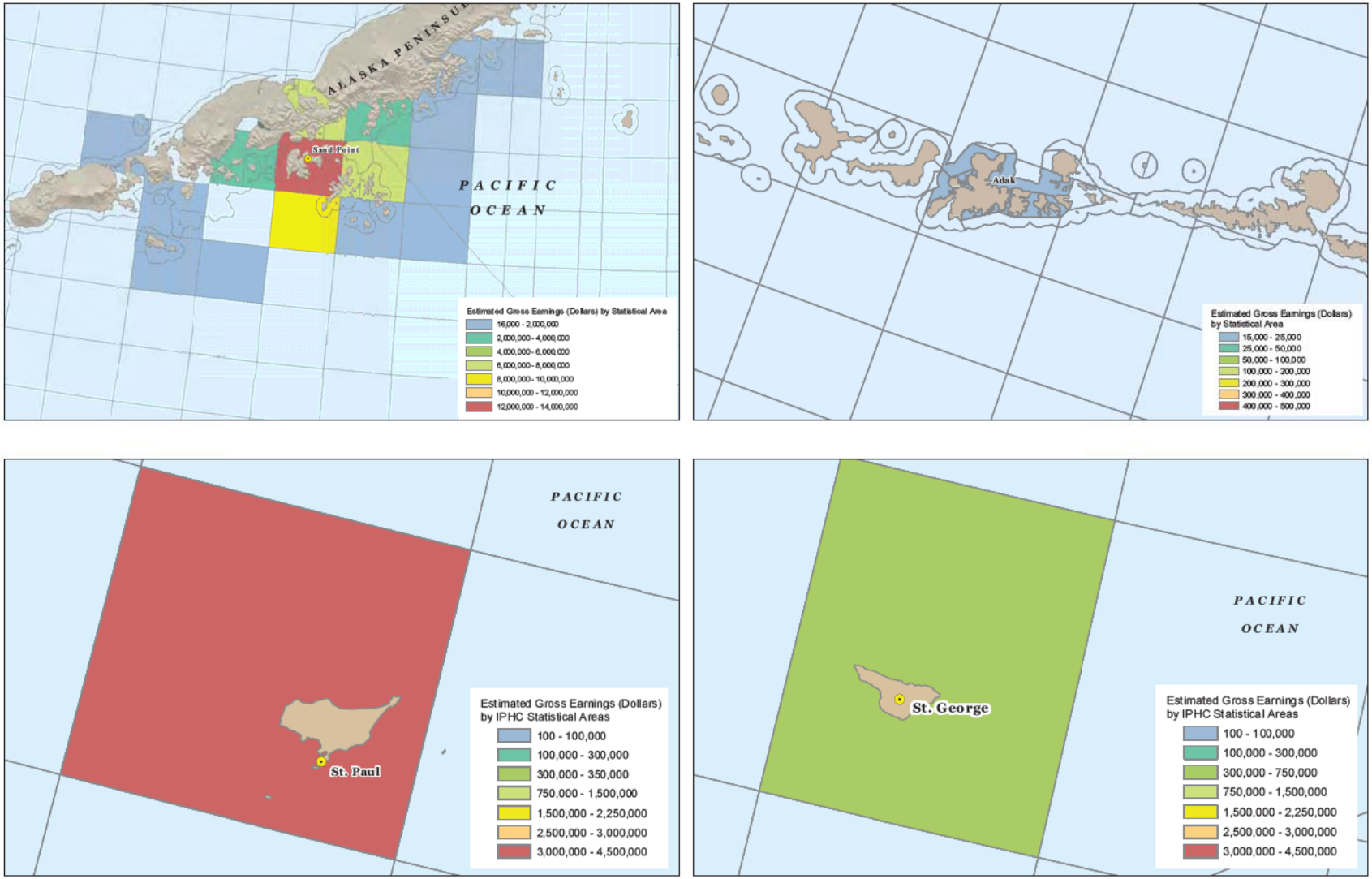

Source: Northern Economics 2007; ESRI
*Adak data displayed is 2002-2005

Figure INT-4
Spatial Distribution of Catch by Locally Owned Vessels by Community, 1996-2005*

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directly adjacent to each respective community. At best, the data that are displayed show general trends for the areas of highest use for each of the communities. This information is considered important in future analyses of potential conservation area closures.

1.3.4 Narrative Community Fleet Characterization

For each community, a narrative characterization of the local fleet is provided. This information is based primarily on data gathered during fieldwork in the communities themselves. This type of information has proven critical for the understanding of fleet dynamics. Further, this work has pointed out the limitations of the quantitative data, where the quantitative data vary sharply from observational and interview data regarding conditions on the ground in the communities. For example, the size of the Adak fleet appears much larger and more developed in the quantitative data than it appeared during fieldwork in 2007, with only one locally owned and operated vessel actively engaged in the commercial fishery on an ongoing basis. One of the lessons reinforced during this project was that while quantitative data are necessary for analysis, there is no substitute for a ground-based, detailed understanding of community dynamics in order to adequately characterize the local fleet well enough to understand likely outcomes of any given future fishery management action.

1.3.5 Quantitative Description of the Processing Sector

Unique counts of processors for each community were developed from lists of processing entities that submitted fish-tickets to ADF&G indicating that the delivery was made in the community shown, as provided by CFEC analysts. In theory, only shore-based processors will indicate in their fish-tickets that landings were in a particular community; fish-tickets submitted by floating processors and catcher processors either do not indicate a port in this field or should indicate they were at sea. In general, floating processors were excluded; however, several processors regularly anchored in and around St. Paul and processed crab over long stretches of years. Table INT-8 provides a summary of the number of entities that indicated an intent to process, purchase, or export fish by year. This includes processors, purchase stations, and individual buyers and exporters that are present in the community over the years 1996 through 2007. Technically, anyone that ever exported or purchased a fish or crab is required to notify ADF&G that they intend to operate. Thus, the numbers of entities indicating an intent to operate can seem inflated compared to what is seen on the ground in each of the communities profiled. For example, there is only one large processor in Adak and St. Paul, respectively, but the presence of more than one entity with the intent to operate exists regularly throughout the years.

Table INT-8. Number of Entities with Intent to Process, Purchase, or Export Fish, by Community, 1996-2007

Community	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Unique Count over All Years
Sand Point	2	4	2	5	4	4	6	6	6	8	7	4	23
Adak	0	0	0	1	2	2	3	3	4	1	1	1	7
St. Paul	2	2	2	3	3	2	1	3	2	2	2	2	6
St. George	0	0	0	0	0	1	1	1	1	1	1	1	1

Source: ADF&G Intent to Operate Data, provided to Northern Economics by request, 2008

1.3.6 Narrative Community Processor Characterization

For each community, a narrative characterization of the local processing sector is provided. This information is based primarily on data gathered during fieldwork in the communities themselves. Like the narrative local fleet characterization, this type of information has proven critical for the understanding of local processor dynamics. Further, this work has pointed out the limitations of the quantitative data, especially for these communities where processing is centrally important to understanding community level fisheries engagement and dependency and where processing data are confidential. Additionally, this type of information is useful for understanding the dynamics of local fleet and processor interactions. One of the lessons reinforced during this project was that while quantitative data are necessary for analysis, there is no substitute for a ground-based, detailed understanding of community dynamics in order to adequately characterize the local processing sector well enough to understand likely outcomes of any given future fishery management action.

1.3.7 Local Support Service Sectors

A narrative discussion of the support service sector is provided for each community. Depending on the community, these businesses are major contributors to the local economy, and they provide a mechanism whereby "multiplier effects" are realized in the communities. Information on support services is not readily accessible from existing sources and was gained through field efforts in each of the communities. These businesses are sensitive to changes in fisheries management and overall fisheries trends, and influencing many aspects of community life. As described in the community profiles, Sand Point has a comparatively well-developed support service sector, with shipwright, fiberglass, and welding services, in addition to marine hardware and electronics sales. This is in marked contrast to Adak, where few direct support services exist, and the Pribilofs, where support services once thrived, at least seasonally, under a derby-style crab fishery but are now underused or absent. The degree of development of local support services suggests the way secondary or indirect commercial fishing-related economic activity is felt, or not felt, in the private sector within each community.

1.3.8 Local Governance and Municipal Revenues

Each community profile contains a discussion of the impact of commercial fishing on municipal revenues. Table INT-9 shows some of the general differences between the communities profiled in terms of relative contribution of different revenue sources for 2006.

In terms of local governance, each profile describes the nature and structure of local jurisdictions. Beyond the differences in the localized structure of fisheries engagement and the associated private sector businesses in the communities that tend to shape local fishery management-related social or socioeconomic impacts, there are also differences in public sector structures and these also influence the nature and magnitude of potential localized social impacts. Whether or not communities are within an organized borough has a direct impact on the way that fishery-associated tax revenues are distributed among and between communities, including regional communities not otherwise directly involved with the fishery. Among the communities profiled in this document, only Sand Point is part of an organized borough (the Aleutians East Borough [AEB]). Supplemental information on AEB fishery-related revenues is provided in Appendix B.

Table INT-9. Municipal Revenues by Community, 2006

Revenue Source	Sand Point	Adak	St. Paul	St. George
Local Operating Revenues				
Taxes	$1,256,156	$589,251	$945,637	$0
License/Permits	$2,750	$490	$0	$0
Service Charges	$260,278	$139,837	$233,475	$70,050
Enterprise	$697,890	$592,342	$5,959,328	$673,530
Other Local Revenue	$294,279	$98,354	$396,148	$12,427
Total Local Operating Revenues	$2,511,353	$1,420,274	$7,534,588	$756,007
Outside Operating Revenues				
Federal Operating	$12,500	$0	$91,605	$0
State Revenue Sharing	$0	$0	$0	$0
State Municipal Assistance	$0	$0	$0	$0
State Fish Tax Sharing	$255,609	$218,622	$330,273	$79,650
Other State Revenue	$115,201	$251,389	$600	$0
Other Intergovernmental	$0	$0	$0	$0
State/Federal Education Funds	$0	$0	$0	$0
Total Outside Revenues	$383,310	$470,011	$422,478	$79,650
Total Operating Revenues	$2,894,663	$1,890,285	$7,957,066	$835,657
Operating Revenue per Capita	$3,252	$12,947	$17,297	$6,963
State/Federal Capital Project Revenues	$0	$0	$37,398	$0
Total All Revenues	$2,894,663	$1,890,285	$7,994,464	$835,657

Source: A. Logan, DCRA, personal communication, 2008

1.4 CONCLUSIONS AND INSIGHTS GAINED

Over the course of this project, a number of insights were gained, or lessons learned. A general conclusion of the project is that the use of publicly available data for smaller communities could result in an inaccurate characterization of the local socioeconomic conditions if they are not combined with a detailed qualitative discussion. Specific insights are described below. Additional information on study related publications and outreach may be found in Appendix C.

Insight 1: As with the first set of community profiles, confidentiality restrictions create the need to approach data acquisition and development in different ways for different communities.[3] The approach taken for a community with large numbers of both harvesters and processors must be very different from the approach taken for communities with lower levels of participation. For this current set of community profiles, data easily presented in the first volume of profiles could not be collected and presented in this volume due to confidentiality restrictions. This is particularly true of processor data. Thus, profiles in this volume do not always present the same level of quantitative detail for some sectors of the local fishing economy that were present in community profiles in the first volume.

[3] State of Alaska regulations regarding confidentiality of catch and revenue information prohibit the ADF&G or the CFEC from providing information to the public that includes fewer than four entities, while federal regulations use a standard of three or fewer entities. The regulations allow employees of these agencies access to the primary data; access to the primary data is also granted on a case-by-case basis, to outside consultants or researchers who are working on projects explicitly related to ongoing management actions. A stated objective of these profiles was to demonstrate the types of information that could be developed by "the public" without direct access to this confidential data. Thus, this project was not exempt from confidentiality restrictions.

Insight 2: Data for floating processors are not publicly available. While floating processors that anchor near communities rarely engage directly with the community in terms of requiring support services or access to community facilities, the tax revenues gained by a local municipality by hosting a floating processor can be substantial. Additionally, floating processors can attract vessels to a particular region, indirectly affecting fuel sales, grocery sales, crew transfers, and other support industries within a particular community. Knowing the level of commercial engagement floating processors have with local vessels would also be helpful in determining the value and degree of local effort in individual fisheries. Unfortunately, for the sake of this analysis, floating processors are only required to note their location as "at sea." More specific information linking floating processors with a specific port or community is inconsistent and incomplete.

Insight 3: U.S. Census data from 2000 are becoming less relevant with age, particularly for smaller communities. U.S. Census data from 2000, however, are still the most up-to-date collection of detailed demographic information for rural Alaskan communities, as within Alaska the U.S. Census American Community Survey only profiles the Anchorage municipal area annually. For many large urbanized areas in the lower 48 states, general demographic trends tend to stay relatively consistent between census years and the use of aged demographic data can still yield relevant analysis. When working with data on small, rural communities, however, relatively minor changes in the community—even those experienced seasonally—can and sometimes does result in major demographic shifts. This is particularly true for communities that seasonally host a large number of visiting processor workers. Shifts can also be seen in communities that lose or gain a major processing plant between the dates of the census and the profile in question.

Insight 4: A step-wise and iterative data acquisition process tailored to each community can inadvertently reveal confidential information. Following Insight 3 from the first volume of community profiles, project staff engaged in an iterative data acquisition process that focused on obtaining the highest-priority pieces of information early on and requested lower-priority information later in the process. While this did have the effect of streamlining the complexity of the data requests, the nature of repeated requests resulted in project staff talking with multiple data providers. It became evident that a series of data requests, spread among different entities and different individual data handlers (who may or may not be in communication with one another), could be inadvertently combined in a manner that would reveal confidential data. Thus, researchers must be vigilant not to reveal confidential information in their documents if they follow an iterative data acquisition process, despite institutional controls that are designed to minimize these occurrences.

Insight 5: Subsistence use of marine resources interfaces directly with commercial fishing in smaller communities. Interviews conducted for this project suggest that subsistence fishing and the harvesting of marine mammals influence a number of socioeconomic factors in each community, including employment availability and vessel use. Knowledge of the local fishing grounds and possible seasonal variation informs analysis of both commercial and subsistence harvests, as many of the same people participate in both. It is, however, beyond the scope of this current study to systematically explore the range of subsistence use in each of the communities profiled. Thus, fieldwork was primarily spent documenting the local economies of the

communities and how they interface with commercial fishing. It is suggested that comprehensive subsistence research be conducted more frequently so that relationships between the commercial fishery and the subsistence harvest can be explored.

Insight 6: Information made publicly available through the State of Alaska does not always agree with information from the local communities themselves for a number of different information categories, including school attendance counts and municipal revenues, among others. In terms of school enrollment figures, during research for the first volume of baseline commercial fishing community profiles, minor discrepancies were discovered between enrollment information available through the State of Alaska Department of Education and Early Development website and enrollment figures reported by school administrative personnel in each community. For this second volume of profiles, the research team made a concerted effort to speak with local school administrators to discuss enrollment, the possible discrepancies between the web-based publicly available data, and what enrollment figure should be used in the document to most accurately characterize enrollment for a given year.

Moreover, interviews with city staff conducted for this set of baseline commercial fishing community profiles suggest that the municipal revenue information presented through the State of Alaska Community Database Online does not, at times, match with information from the communities themselves. This has more potentially more serious implications for the use of these data in providing a context for the discussion of community engagement and dependency on fisheries that some other types of data discrepancies. For example, publicly available information derived from the Community Database Online site and its archives indicates that St. George collected no local taxes in 1999, 2000, 2004, 2005, and 2006.[4] It is known from St. George finance department data, however, that local fish taxes were significant in 1999 and then dropped sharply in 2000 before disappearing altogether for a number of years, paralleling the "crab crash" and the exit of community-based processing during that period. Further, in more recent years, St. George has had an inter-community agreement with the community of St. Paul that has brought fish landing taxes, if not actual local landings, back to St. George. Under this agreement, crab processor quota linked to St. George under one of the community protection provisions of the BSAI crab rationalization program has been processed annually in St. Paul since the inception of the program (from 2005 to date [2008]). During this time, the raw fish taxes that St. Paul has collected on the landings associated with the St. George linked processor quota have then been forwarded to St. George (following the deduction of an administrative fee). In other words, for St. George, the previous and current engagement with, and dependency upon, the BSAI crab fishery is not shown in publicly available municipal revenue data. This example points up the difficulties of drawing conclusions from readily available and widely utilized data without going the extra mile to cross-check these data against local sources.

Insight 7: Fieldwork and qualitative descriptions for each community richly complement publicly available quantitative data, including those data detailing permitting, vessels, processor activity, and demographics. As stated above, confidentiality issues prevent the release of much quantitative information for smaller communities. In many instances, the only way to accurately

[4] Municipal revenue information for St. George was not available for FY 2007 or FY 2008 at the time of writing.

describe the local economy as it relates to the commercial fishery is to discuss activities and trends with people directly engaged in the local economy. The results of interviews conducted during fieldwork for this project also complement demographic data. For example, the sections profiling St. Paul and St. George include descriptions of CDQ organization involvement in the local community, trends in employment, and trends in population (all of which were gathered through interviews with community leaders, business owners, and residents). These descriptions specifically complement the systematically gathered quantitative data available in Scholz et al. 2007, which concluded that St. Paul and St. George had undergone recent changes that reduced the role of commercial fishing in the communities, by attempting to highlight how each sector interfaces with (and is affected by) commercial fishing.

SAND POINT

CHAPTER 2.0
SAND POINT

Sand Point is located on Humboldt Harbor on Popof Island in the Shumagin Islands group. Off the southern shore of the Alaska Peninsula in the Gulf of Alaska, Sand Point is 570 air miles from Anchorage. Sand Point was incorporated in 1966 and is a first-class city within the AEB. The City of Sand Point encompasses 7.8 square miles of land and 21.1 square miles of water.

Sand Point lies in the maritime climate zone. Temperatures range from –9 to +76 degrees Fahrenheit (°F). Snowfall averages 52 inches, and average annual precipitation is 33 inches.

2.1 OVERVIEW

The contemporary community of Sand Point was founded in 1898 by a San Francisco fishing company as a trading post and cod fishing station. The Shumagin Islands have a long history of previous settlement. When Russian explorers, over the first half of the 18th century, first described these islands, they encountered a population of Unga people. Unangans or Aleuts from surrounding villages and Scandinavian fishermen were the first residents of the contemporary community and Sand Point inherited its leading role as a micro-regional fishing center from the now-abandoned town of Unga. The first settlers combined fishing and trading with fox farming and Sand Point served as a repair and supply center for gold mining during the early 1900s, but fish processing became the dominant activity in the 1930s. Aleutian Cold Storage built a local halibut plant in 1946. Trident Seafoods (Trident) operates the current processing plant, which primarily processes salmon, Pacific cod, pollock and other groundfish, and halibut, among other species, with the relative emphasis changing somewhat over time with stock fluctuations and changes in regulatory regimes. Peter Pan Seafoods (Peter Pan) operates a buying station in Sand Point for their processing plant in King Cove. Sand Point is home port for the largest residential fishing fleet in the Aleutian-Pribilof region.[5] While commercial fishing remains the mainstay the Sand Point economy, there are potential oil and gas-related activities in the planning stages that if they come to fruition could substantially augment or alter the foundation of the local economy.

Like the other eastern Aleutians/Alaska Peninsula area major fishing ports of King Cove and Akutan, Sand Point, as part of the AEB, is an integral part of a regional entity that serves to redistribute, in part, fiscal benefits of localized commercial fishing activity. Like Akutan and King Cove, Sand Point is home to one dominant shoreplant. Sand Point is importantly differentiated from Akutan, however, as like King Cove (and Unalaska, the next major fishing port to the west of Akutan) Sand Point is not a CDQ community. Sand Point, like King Cove, has historically been a commercial fishing community with processing facilities as part of the community for decades and it has a substantial residential commercial fishing fleet that delivers

[5] Like King Cove, Sand Point is not geographically within the Aleutian Island chain, but socially and culturally the community is considered part of the Aleutian region. The community's residents are part of the Aleut Corporation, the ANCSA regional corporation, and the village is one of the constituent communities of the Aleutian/Pribilof Islands Association.

to the local seafood processors. With respect to the latter point, Sand Point is like King Cove and unlike Unalaska and Akutan. Scenes of the physical setting of Sand Point may be found in Plates SDPT-1 and SDPT-2. Some of the physical layout of the community is portrayed in Plates SDPT-3 and SDPT-4, and a map of the community is provided in Maps SDPT-1 and SDPT-2.

2.2 COMMUNITY DEMOGRAPHICS

Sand Point is a community that traces its founding directly to commercial fishing. Unlike Unalaska and Akutan, it developed around a commercial fish processing plant and did not grow from an existing traditional Aleut village. Similar to the pattern seen in King Cove, the contemporary community is ethnically heterogeneous, but much greater diversity is found among the population components associated with fish processing and support services than for those associated with other economic activities such as fish harvesting, government, or education. As in King Cove, while the fish processing employment force does display continuity from year to year, the local perception is that they are more transient than other community residents and are not considered to be truly "local" residents as those with other occupations who do not live in company housing. Some of the attributes of the contemporary community may be seen in Plates SDPT-5, SDPT-6, and SDPT-7.

2.2.1 Total Population

Historically, Sand Point's population has fluctuated with fishing activity as individuals come to the community seasonally to serve as seafood processing workers, fish tenders, or harvest vessel crew members. Table SDPT-1 provides total population figures for the community, by decade, from 1900 through 2000.

Table SDPT-1. Population by Decade, Sand Point, 1900-2000

Year	Population
1900	16
1910	0
1920	60
1930	69
1940	99
1950	107
1960	254
1970	360
1980	625
1990	878
2000	952

Source: DCRA 2007; U.S. Census Bureau 2007b

SAND POINT

PLATE
SDPT-1
PHYSICAL SETTING

Top: Windmills and distant mountain on Unga Island

Bottom Left: A view east from Danger Point

Bottom Right: A view across Humboldt Harbor

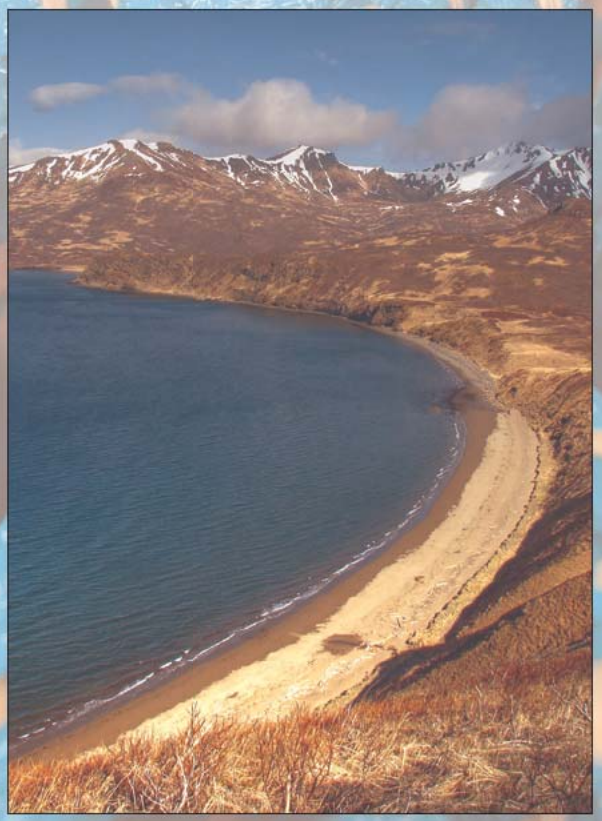

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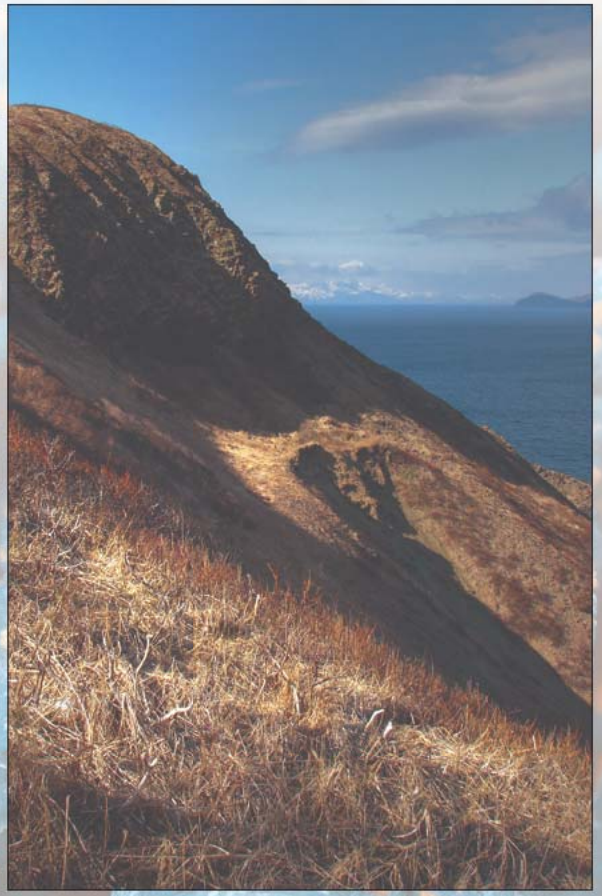
PLATE
SDPT-2
PHYSICAL SETTING

Top Left: Danger Point

Top Right: Interior of Popof Island

Bottom: A view across Humboldt Harbor



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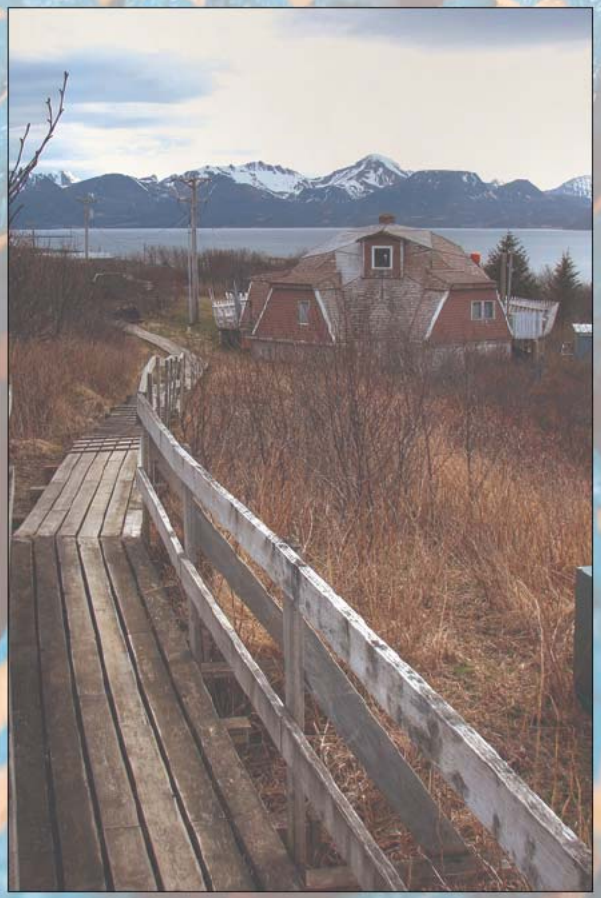
SAND POINT

PLATE
SDPT-3
SPATIAL RELATIONSHIP

Top: Harbor and residences

Bottom Left: Boardwalk connecting residences

Bottom Right: New harbor construction as it relates to the community



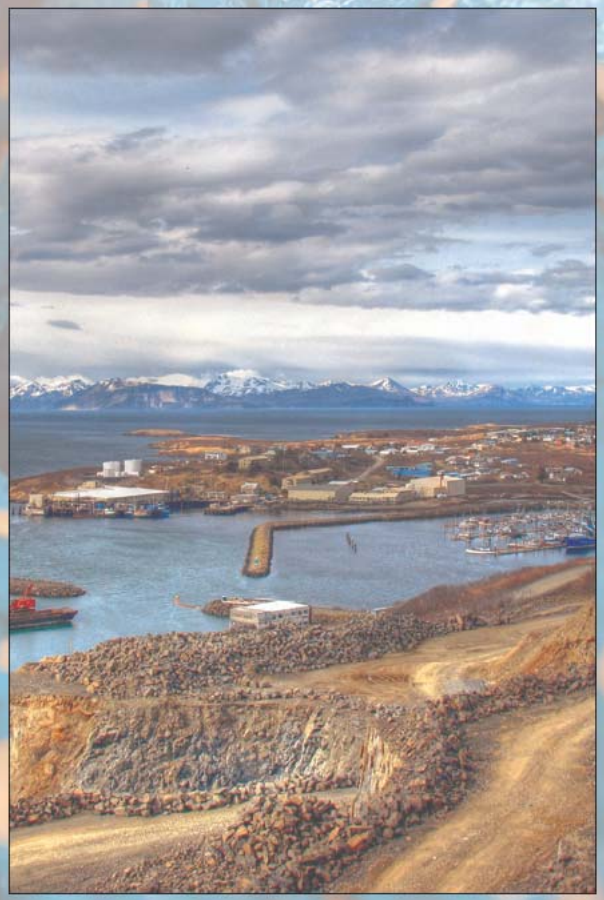


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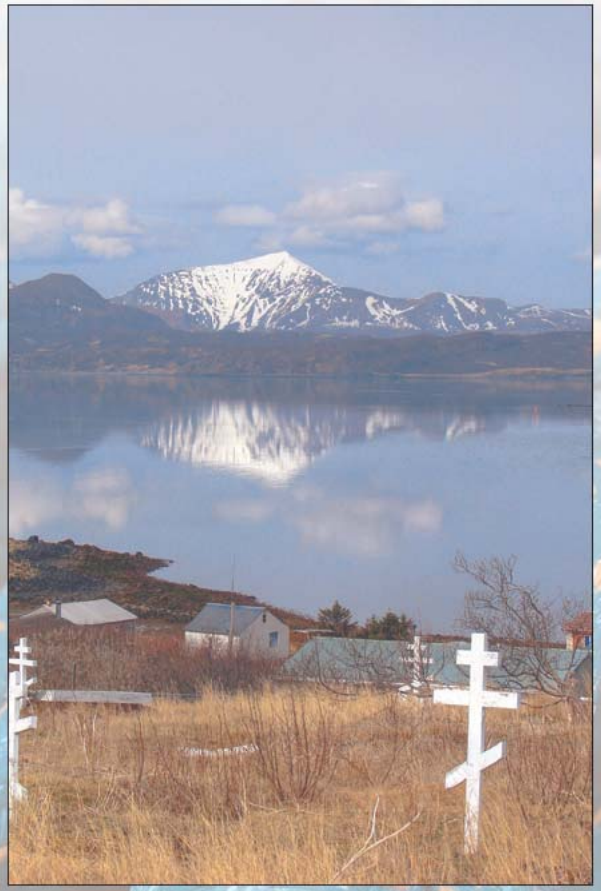
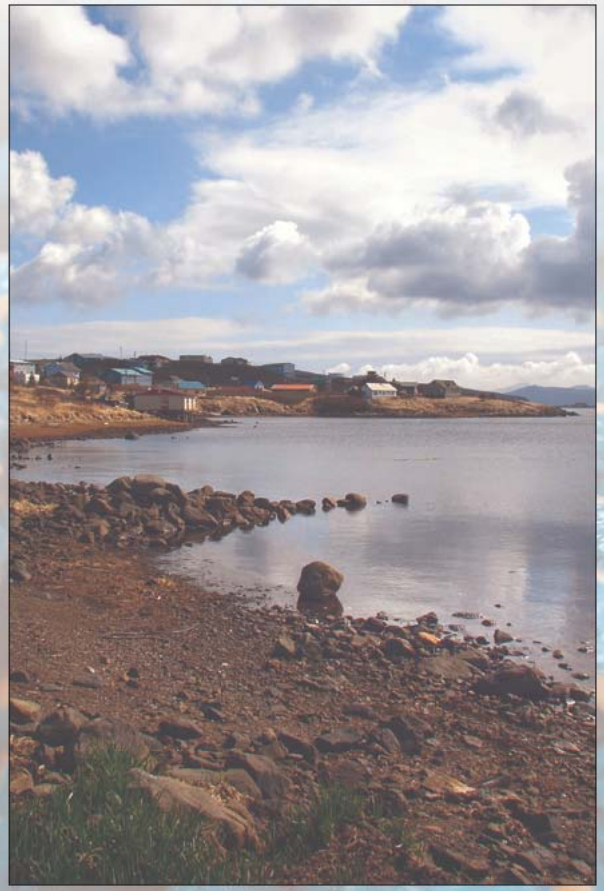
PLATE
SDPT-4
SPATIAL RELATIONSHIP

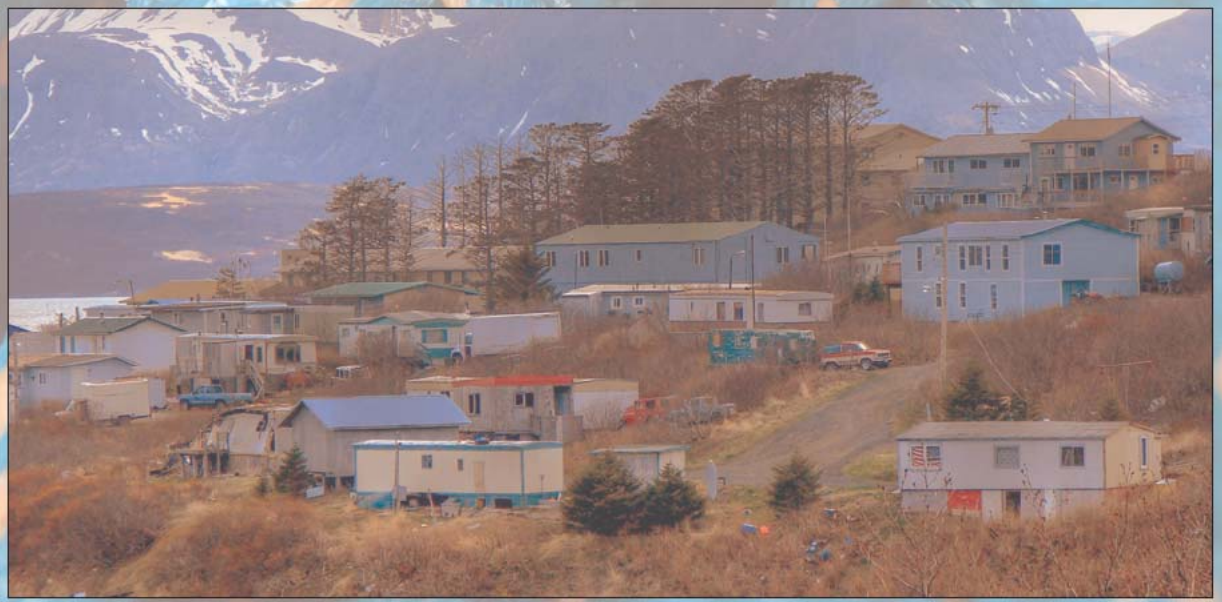
Top Left: Russian Orthodox grave and distant Unga Island

Top Right: Mud Bay and nearby houses

Bottom: Residential units on a hillside







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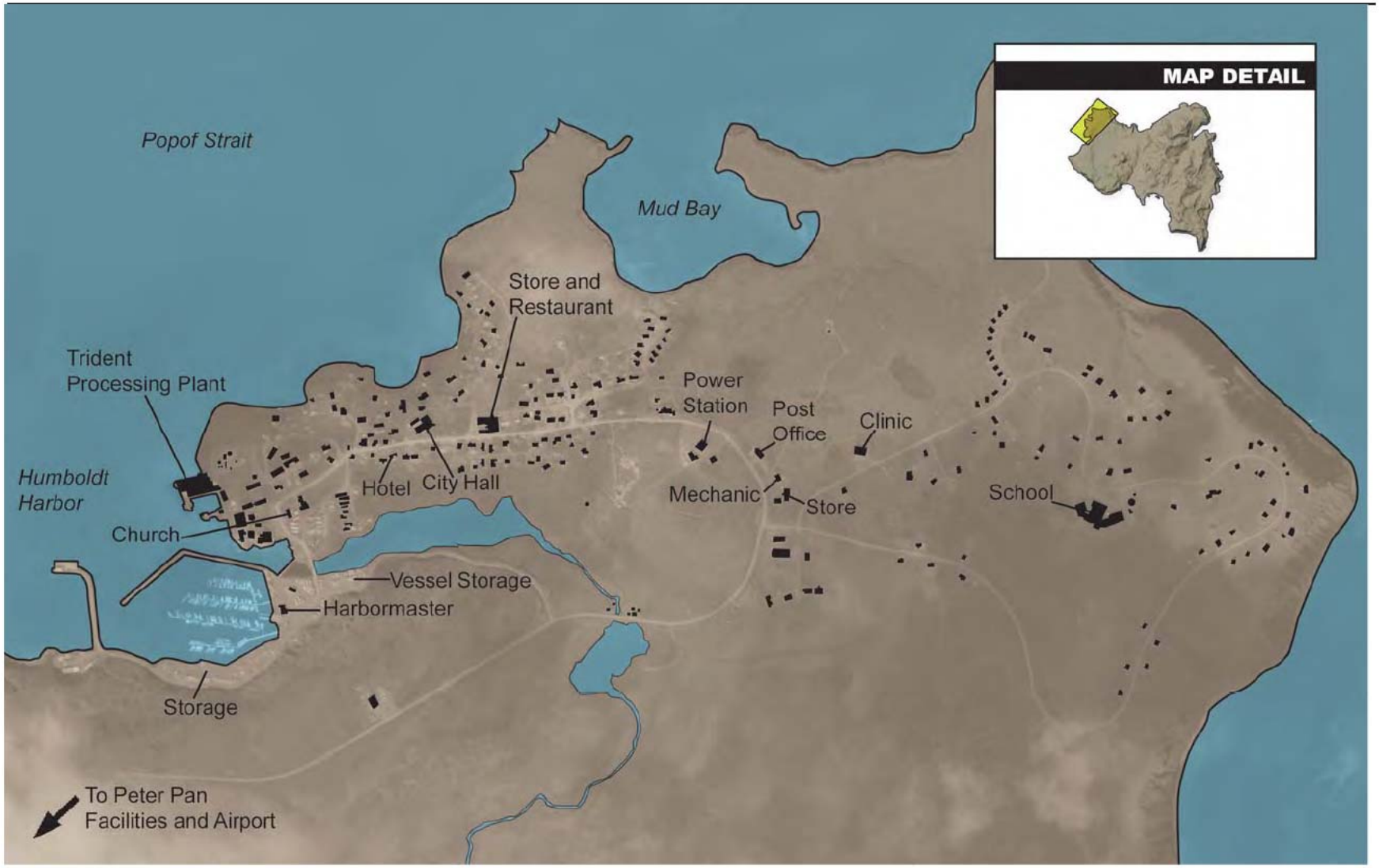

Source: Google Earth; Google Maps

Map SDPT-1
Community of Sand Point

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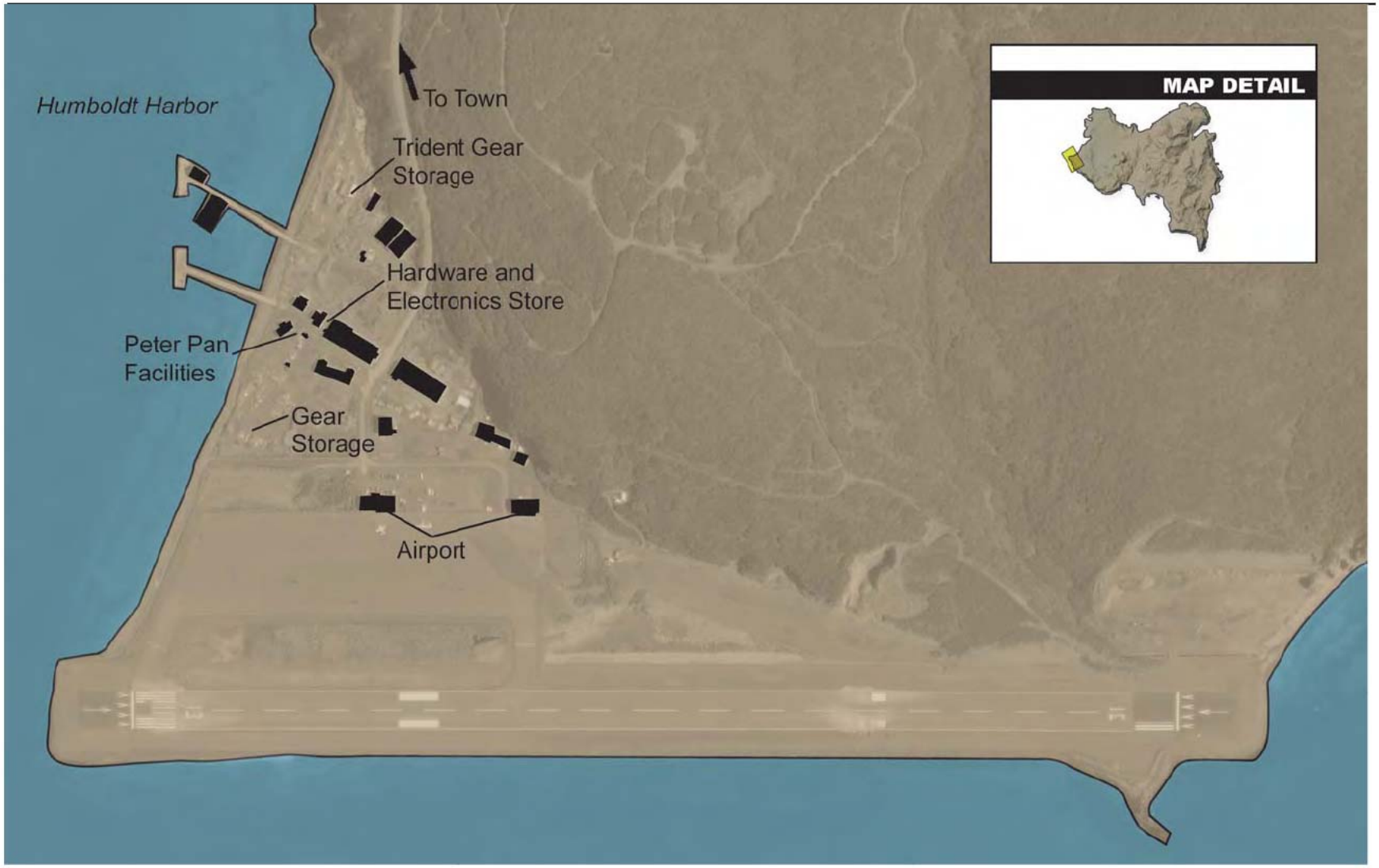

Source: Google Earth; Google Maps

Map SDPT-2
Airport of Sand Point

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SAND POINT

PLATE
SDPT-5
COMMUNITY ATTRIBUTES

Top Left and Right: Wooden skiffs at the southern end of the community

Bottom: Eagle landing on a still windmill

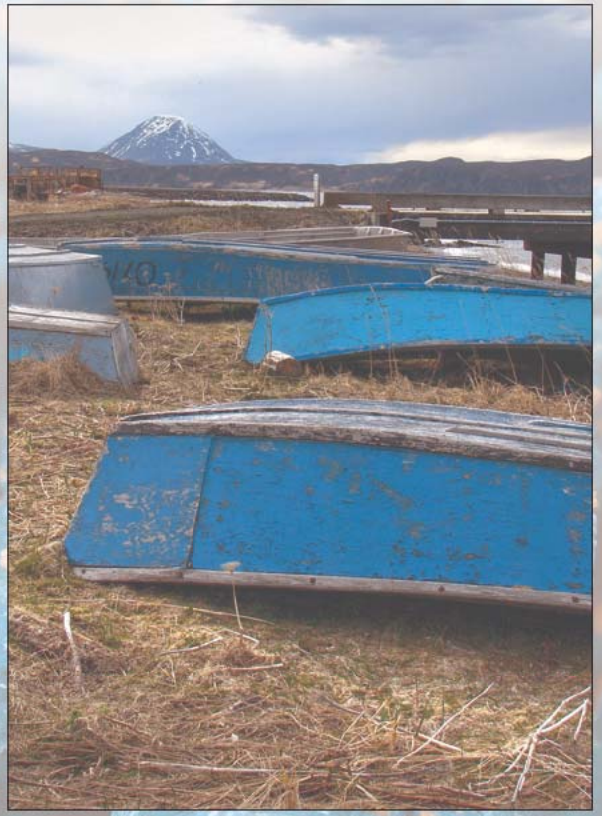

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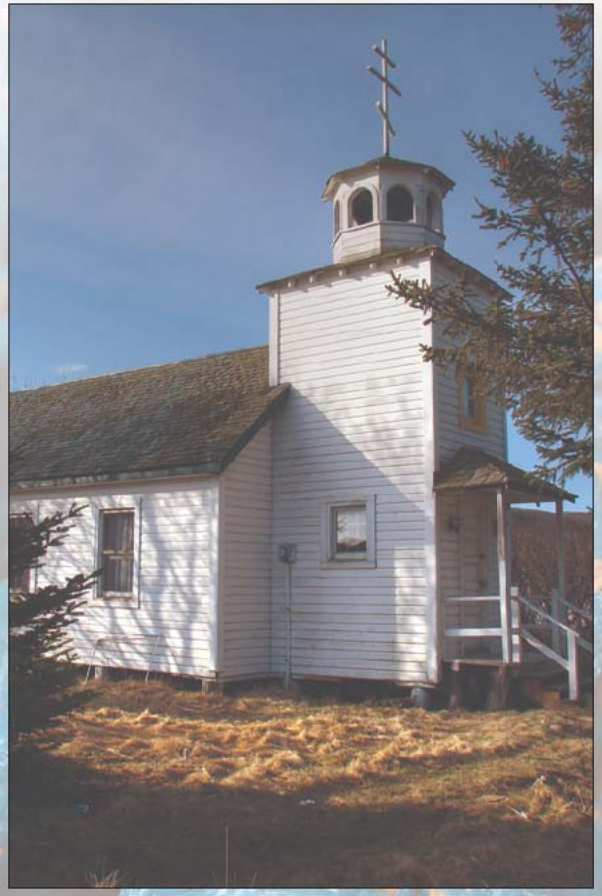
PLATE
SDPT-6
COMMUNITY ATTRIBUTES

Top Left: Russian Orthodox church

Top Right: Direction and distance to other Alaskan towns

Bottom: Graveyard upon a hill



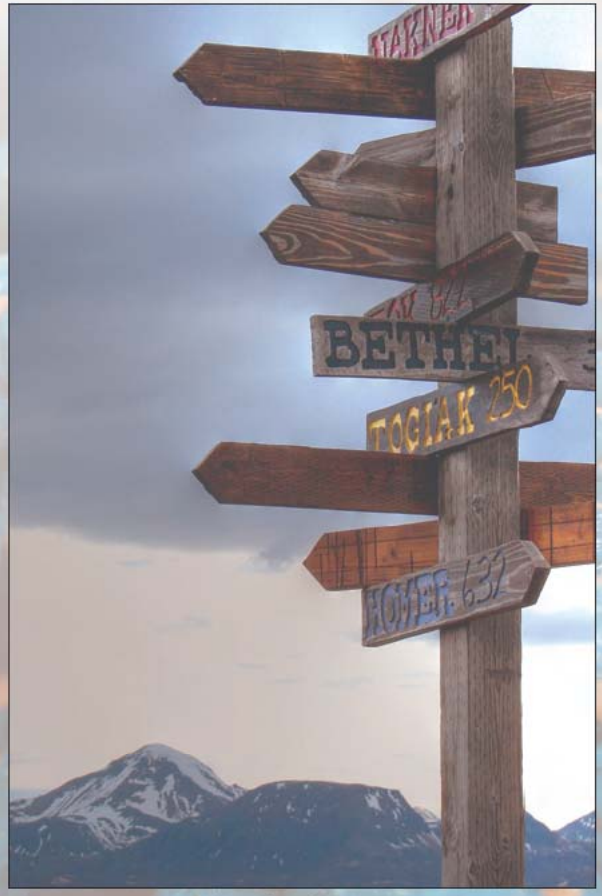


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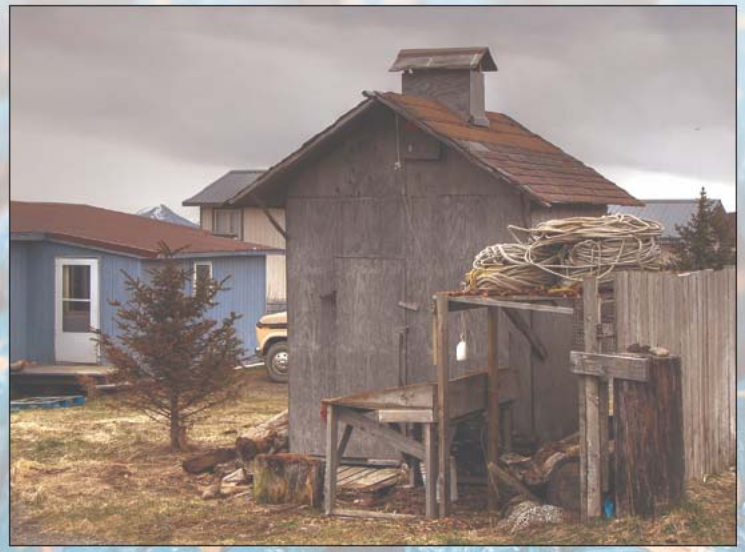
PLATE
SDPT-7
COMMUNITY ATTRIBUTES

Top Left: Small shed used for smoking fish

Top Right: Refrigeration-equipped cargo containers

Bottom Left: Equipment used for construction of new harbor

Bottom Right: Bumper sticker in support of commercial fishermen



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According to the mayor of Sand Point, local population estimates have shown a drop from 954 residents in 2002 to approximately 910 residents in 2006. A number of individuals have apparently left the community to seek better employment opportunities in the Anchorage area, with relatively poor fishing and a lack of other economic opportunities cited as reasons for these moves. These moves have prompted local concerns of a "brain drain" type of population flow where capable and ambitious residents, especially young adults, may leave to seek better opportunities elsewhere, depriving the community of some of its potentially most productive members. Some of these former full-time residents return to Sand Point in the summertime to fish salmon, while others have full-time employment elsewhere that precludes local seasonal residency. According to the mayor there is some cause for optimism, however, as one or two families that previously left have recently (2006-2007) returned to the community full-time.

2.2.2 Ethnicity

The ethnic composition of Sand Point's population may be seen in Table SDPT-2. As shown, Sand Point has a plurality of Alaska Native residents, but the diversity of the population associated largely with fish processing may be seen in the fact that, in 2000, Asian/Pacific Islander and "Other" groups combined were larger than the "White" community population component.

Table SDPT-2. Ethnic Composition of Population, Sand Point, 1990 and 2000

Race/Ethnicity	1990		2000	
	Number	Percent	Number	Percent
White	284	32.3%	264	27.7%
Black or African American	4	0.5%	14	1.5%
American Indian, Eskimo, Aleut	433	49.3%	403	42.3%
Asian or Pacific Islander*	87	9.9%	224	23.5%
Other**	70	8.0%	47	4.9%
Total Population	878	100%	952	100%
Hispanic origin, any race***	78	8.9%	129	13.6%

*In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 3) and Asian (pop 221).
**In the 2000 census, this category was Some Other Race (pop 21) and Two or more races (pop 26).
***"Hispanic" is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).
Source: U.S. Census Bureau, 2007a, 2007b

While not evident in existing data, the long-term population of Sand Point has reportedly become ethnically more diverse in recent years due to seafood processing-related in-migration. Reportedly, a number of individuals of varying ethnic origins who came to the community originally through seasonal employment at the processing plant have subsequently switched employment to other sectors of the local economy, becoming longer-term residents of the community. An estimated six or seven individuals have done so in the recent past, taking employment positions in health care, education, and retail fields at the clinic, the school, the local Head Start program, and the general store, although according to city staff the rate of this type of transition has slowed in the past couple of years (2005-2007).

2.2.3 Age and Sex

Table SDPT-3 displays the age and sex distribution of Sand Point's population in 1990 and 2000. The predominance of males over females is consistent with disproportionate number of male-held processing jobs, as well as possible differential female/male emigration from the community.

Table SDPT-3. Population by Age and Sex, Sand Point, 1990 and 2000

Attribute	1990		2000	
	Number	Percent	Number	Percent
Male	557	63%	593	62%
Female	321	37%	359	38%
Total	878	100%	952	100%
Median Age	NA		36.5 years	

Source: U.S. Census Bureau 2007a, 2007b

Table SDPT-4 provides information on school enrollments in Sand Point for the period 1991-2007. As shown, there has been year-to-year fluctuation in enrollments over this period, with 1997 being the year with the highest count for the range of years shown. Beginning in 1997, enrollments dropped in each year for six years straight, declining from 150 students in 1997 to 111 in 2003, an overall decrease of 26 percent, before increasing to 117 in 2004 then falling to 98 in 2007, the lowest count in the period shown. Currently (2007), the Sand Point School provides preschool and K-12 education, with 14 certified staff members, 6 in the elementary level and 8 in the secondary level (including 1 special education instructor in each), along with 13 support personnel. According to local school staff, total enrollment for 2006-2007 included 19 preschoolers (ages 3 and 4 years), 55 elementary students (kindergarten through grade 6), 20 junior high students (grades 7 and 8), and 27 high school students (grades 9 through 12), for a total of 121 combined preschool and school students.

Table SDPT-4. School Enrollment, Sand Point, FY 1995-2007

Fiscal Year	Student Count
1995	128
1996	136
1997	150
1998	130
1999	127
2000	125
2001	116
2002	114
2003	111
2004	117
2005	111
2006	103
2007	98

Note: Fiscal year designation notes the calendar year in school year ended (e.g., 2003 refers to the 2002-2003 school year).
Source: C. Warner, personal communication, 2007

Despite relative precipitous drops in some previous years, enrollments appear to have now stabilized according to school staff, but in a small community the gain or loss of a single large family can have a relatively large impact to overall enrollments at least in the short term. According to school staff, ongoing commercial fishing activities do have a minor impact on attendance fluctuations at the school, as students may temporarily leave school to participate in a fishing season. Most students, however, are involved in the summer salmon fisheries outside of the school year rather than in the winter fisheries, although some students may take a day or two off during the winter specifically to help family members get vessels and gear ready for a winter season opener. In a case described as unique by school staff, an upper grade student left school for a more extended time to participate in the winter pollock fishery in 2005, but this type of situation has not occurred since. In years past, students would also sometimes take time off in May to participate in halibut fishing, but it is reportedly now common for students to wait to fish until later in May, after school has let out for the summer. In more general terms, school officials report that the availability of local commercial fishing opportunities may serve as a disincentive for students to pursue higher educational goals, with students choosing instead to follow the local historical pattern of earning a living in the fishery. Others in the community, however, stated that relatively poor economic conditions for harvesters in the local fisheries in recent years, combined with regulatory changes that have made entry into a number of the fisheries more difficult, have effectively discouraged young Sand Point residents from entering the fishery in the numbers (or proportions) seen in the more distant past.

In contrast to the situation seen in some other regional processing communities, a number of the students at the school are from families whose parents are employed at the local seafood processing plant. As of the 2006-2007 school year, according to school staff, a total of 15 students (3 in preschool, 4 in grades K-6, and 8 in grades 7-12) had parents working in various capacities at the plant, including an office worker, an engineer, an electrician/refrigeration specialist, a dock foreman, and two processing personnel. In terms of resulting linguistic diversity, two of the preschoolers are "English as a second language" students, but none of the other students are, although two or three other students come from families where another language is spoken in the home. According to school staff, processing family children enrollments have also fluctuated over time with ownership changes at the plant. Apparently at different points in the history of operations of the plant, there have been differences in the degree of employment at the plant drawn from the local workforce, with reportedly more long-term residents being employed at the plant under at least some of the previous ownership configurations than is the case today (2007). According to several community sources, including city officials, no individuals raised in the community or others who are considered permanent residents of the community currently work at the processing plant, although several in management positions at the plant have been in the community for many years and are active in different aspects of community life.

An additional link between the school and local commercial fishing may be found at the school outside of the academic classrooms. Commercial fishing-oriented water survival training is offered at the school pool and is available to members of the public as well as students. This includes instruction in donning cold water survival suits of the type used on commercial fishing vessels as well as emergency life raft use training and related survival skills. The school also

features shop training that includes practical training in mechanics, welding, and carpentry, skills that are directly applicable to the commercial fishing context.

2.2.4 Housing Type and Population Segments

Group housing in the community is largely associated with the seafood processing workforce. As shown in Table SDPT-5, 22 percent of the population lived in group housing in 1990 and 36 percent of the population did so in 2000. Plates SDPT-8, SDPT-9, and SDPT-10 include photographs of different housing types in the community.

Table SDPT-5. Group Quarters Housing Information, Sand Point, 1990 and 2000

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	878	189	21.5%	689	78.5%
2000	952	340	35.7%	612	64.3%

Source: U.S. Census Bureau 2007a, 2007b

Table SDPT-6 provides information on group housing and ethnicity for Sand Point for 1990, and similar information for 2000 is provided in Table SDPT-7. In 2000, no Alaska Natives/Native Americans lived in group quarters in the community, but comprised 66 percent of the population living outside of group quarters. As shown, the ethnic diversity among group quarter residents was, in general, substantially less in 2000 than in 1990, but detailed comparison of individual groups (other than White, Alaska Native/Native American, and Asian) are problematic due to missing data (the "unknown" category). Asians comprised over 60 percent of all persons living in group quarters in 2000 with persons of Hispanic origin accounting for about two-thirds of the remaining 40 percent of group quarter residents.

Table SDPT-6. Ethnicity and Group Quarters Housing Information, Sand Point, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	284	32.3%	48	25.4%	236	34.3%
Black or African American	4	0.5%	4	2.1%	0	0.0%
American Indian, Eskimo, Aleut	433	49.3%	3	1.6%	430	62.4%
Asian or Pacific Islander	87	9.9%	80	42.3%	7	1.0%
Other race	70	8.0%	54	28.6%	16	2.3%
Total Population	878	100.00%	189	100.0%	689	100.0%
Hispanic origin, any race	78	8.9%	58	30.7%	20	2.9%
Total Minority Population	601	68.5%	146	77.2%	455	66.0%
Total Non-Minority Population (White Non-Hispanic)	277	31.5%	43	22.8%	234	34.0%

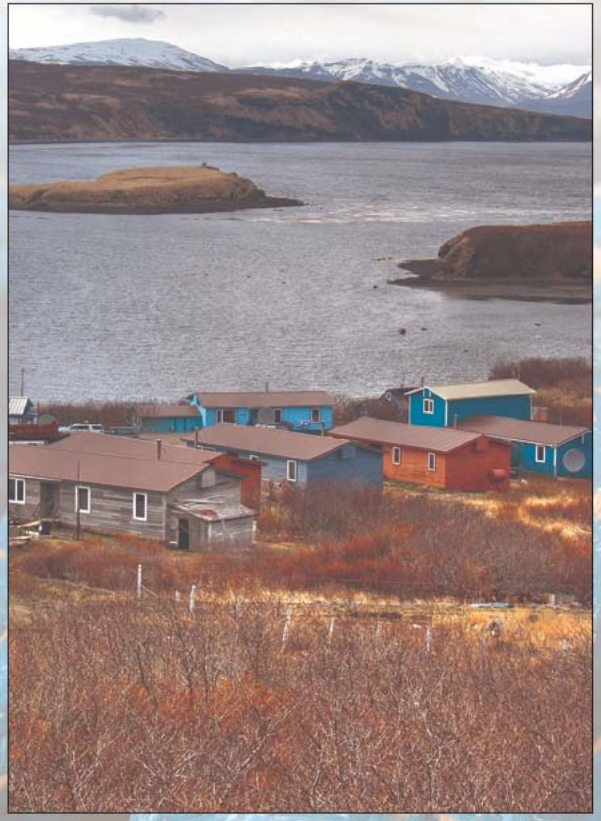
Source: U.S. Census Bureau 2007a

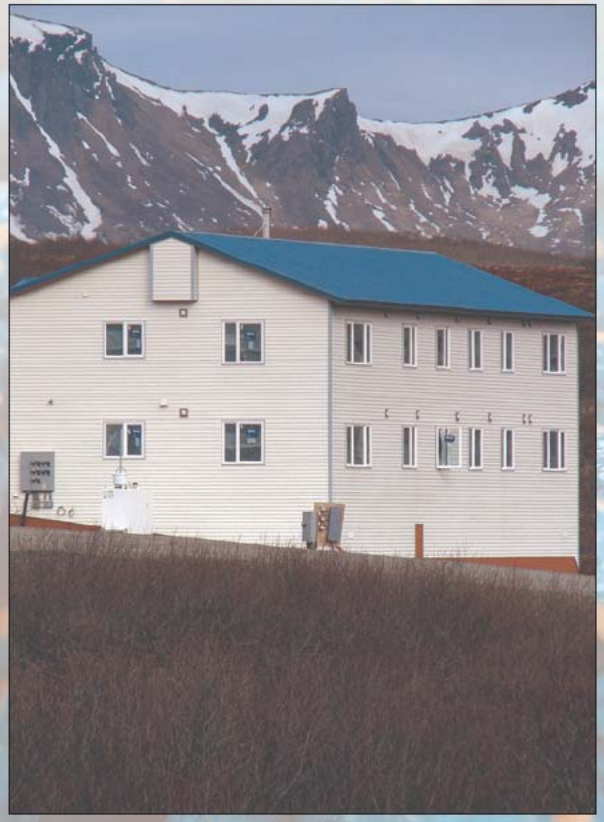
SAND POINT

PLATE
SDPT-8
HOUSING TYPES

Top Left and Bottom: Single-family homes

Top Right: Newly constructed apartment complex





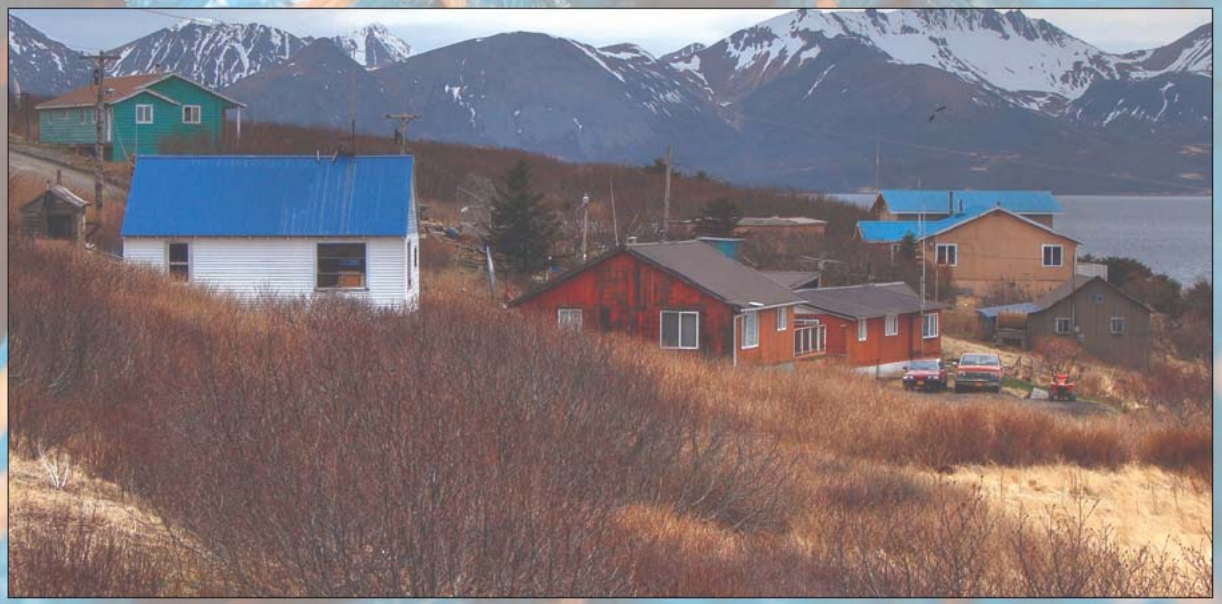


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PLATE
SDPT-9
HOUSING TYPES

All: Single-family homes ranging in size

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PLATE
SDPT-10
HOUSING TYPES

Top Left: Duplex

Top Right and Bottom Right: Apartment complex

Bottom Left: Group quarters associated with Trident processing plant

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Table SDPT-7. Ethnicity and Group Quarters Housing Information, Sand Point, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	264	27.7%	104	30.6%	160	26.1%
Black or African American	14	1.5%	14	4.1%	0	0.0%
American Indian, Eskimo, Aleut	403	42.3%	0	0.0%	403	65.8%
Asian or Pacific Islander	224	23.5%	211	62.1%	13	2.1%
Other race	47	4.9%	11	3.2%	36	5.9%
Total Population	952	100.0%	340	100.0%	612	100.0%
Hispanic origin, any race	129	13.6%	90	26.5%	39	6.4%
Total Minority Population	790	83.0%	317	93.2%	473	77.3%
Total Non-Minority Population (White Non-Hispanic)	162	17.0%	23	6.8%	139	22.7%

Source: U.S. Census Bureau 2007b

Individual housing in Sand Point has typically been in short supply in recent years, a condition locally attributed to the fact that most housing is built through government agencies or programs, and there has not been any recent significant, private sector residential construction. Local residents did report that some houses are occupied only seasonally, in conjunction with the summer fisheries, but that such houses were generally not available for rent, except perhaps to family, friends, and other "known" people. Further, despite the fact that the residential population of the community has apparently declined in recent years, housing demand has remained high due to a number of construction projects in the community as outside workers have needed housing. With the completion or winding down of several projects (such as clinic construction, airport expansion, and harbor improvements), however, the shortage has apparently begun to be alleviated through a decrease in project-specific demand in 2007. Nevertheless, a continuing lack of adequate housing is cited by city officials as contributing to a relatively high turnover in teachers and police officers initially hired from outside of the community as without other social ties to Sand Point, satisfaction with housing has become all the more important as a retention factor for individuals filling these positions. Further, other interview data would suggest that there are still cases where extended families are living together when smaller family residential groups would be preferable if appropriate housing would become available.

Table SDPT-8 displays basic information on community housing, households, families, and median household and family income for Sand Point in 2000.

Table SDPT-8. Selected Household Information, Sand Point, 2000

Community	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
Sand Point	282	53	229	2.67	$55,417	156	3.17	$58,000

Source: U.S. Census Bureau 2007b

2.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

The economy of Sand Point is primarily based on fishing and governmental economic sectors. These two sectors make up the large majority of long-term employment in the community. Various construction projects provide important short- to medium-term employment. Projects currently (2007) underway or soon to be underway include the next phase of boat harbor improvements, construction by the Aleutian Housing Authority of three residential fourplexes (two of which are earmarked for professional staff residences, including teachers, police officers, and health care workers and their families, and one of which is designated for low-income housing), paving the road system from the reservoir to the spit and along the school loop road, and a Bureau of Indian Affairs-managed water/sewer project that is in its sixth year. While some community residents characterize the local employment market as limited, others suggest that the individuals who are good employees are fully employed in the community and that individuals who are employable on a steady basis are hard to find when job openings do become available.

The Sand Point economy, like those of other heavily fishery-dependent communities in the area, is cyclical and tied to fish harvesting and processing activities. There are, however, indications of an overall downward economic trend in recent years. A number of factors cited for these effects are regional and cumulative in nature (low fish prices, Steller sea lion protection measures, competition from farmed fish, Area M restrictions, negative impacts to Sand Point resulting from American Fisheries Act (AFA) and BSAI crab rationalization-related conditions, and other management and resource concerns). Nevertheless, conditions are reported to have improved somewhat in 2006-2007.

Information gathered through interviews with community leaders would suggest that the dynamics of the "available labor force" have undergone change in recent years, with more men seeking non-fishing employment (during the winter months especially) than was the case in the more distant past. The most commonly cited factor for this was projected low fish prices, with the specific expectation that salmon crew shares would not be as substantial as has historically been the case. Other families have considered moving. The common pattern in the past has been for locals to graduate from high school and either go fishing or move to another community. There has been relatively little turnover in local non-fishing jobs, as these jobs tend to be highly valued by those who occupy them since there are relatively few of them (and there are, of course, jobs that are held by more transient non-locals). Local opportunities are seen as quite constrained, and it was pointed out by several people that economic development opportunities in Sand Point are quite limited. Table SDPT-9 shows employment and poverty information for Sand Point for the years 1990 and 2000.

Table SDPT-9. Estimated Employment and Poverty Information, Sand Point, 1990 and 2000

Year	Total Persons Employed	Total Persons Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
1990	438	13	2.9%	32.1%	194	12.5%
2000	427	190	22.8%	48.67%	215	16.0%

Source: U.S. Census Bureau 2007a, 2007b

The following discussion of the fishing industry is divided into the harvesting, processing, and support services sectors.

2.3.1 Harvesting

Community Fleet Quantitative Description

Table SDPT-10 provides information on the characteristics of vessels owned by Sand Point residents for the period 1995 through 2006. This information is collected by the CFEC when vessel owners renew their registration. As shown, the local fleet in Sand Point is much larger than the fleets characterized for the other communities in this volume. Even at its large size in comparison to the other communities, Sand Point has experienced a decline in overall numbers for their fishing fleet over the last 13 years, as evidenced by the data below, dropping from 249 vessels in 1995 to 135 in 2006. The loss of vessels of all size classes—particularly those less than 26 feet—is substantial. Also apparent is the decline in the number of larger vessels in the fleet, with only one vessel 60 feet or greater remaining in 2006. Wood hull vessels have declined most sharply among hull types, although iron/steel/alloy hulls are also becoming less common.

In addition to vessel ownership information, data on permit holders for Sand Point provide a perspective on local harvester engagement in various fisheries. Table SDPT-11 shows the number of persons in the community who own permits in one, two, three, or all four of the major fishery groups in Alaska, by year, for the period 1995 through 2006. Table SDPT-12 shows the percentages of all permit holders who owned permits in the different combinations listed. (Additional information on permit holders by community may be found in Appendix A.) As shown, salmon permits are the most prevalent in Sand Point, whether or not they are combined with permits for halibut/sablefish, groundfish, crab/other, or a combination of the three. In fact, for 2006, 82 percent of all permit holders have a permit for salmon. Groundfish permits for 2006 are also in relatively high numbers in Sand Point, with 51 percent of all permit holders having a permit for this fishery category. The number of permits, generally, has declined over the years shown, with the 99 permits in 2006 the fewest for the range shown. The number of permit holders with more than one permit has declined over the recent years, while the number of permit holders in one species has grown since 1995 or has remained relatively constant.

Summary catch and earnings estimates for the community may be made through using the annual CFEC data report called "Permit and Fishing Activity by Year, State, Census Division or Alaskan City." Table SDPT-13 aggregates and summarizes estimated landings and gross revenue data for Sand Point into 14 gear and species groups for the years 1995 through 2005 (Note that this table, unlike the previous table, displays the number of permits held, not the number of permit holders). Where the number of permits in any group is less than that required to permit disclosure of actual data, an algorithm was used to produce "reasonable estimates" of total catch and earnings. (A more detailed explanation of the algorithm methodology is provided in Appendix A.) The main permits fished in the recent past include halibut, salmon seine, salmon set net, groundfish jig, groundfish pot, and tanner crab, although tanner crab was only popular in 2001 and 2005. Generally, since 1995, the number of all permits fished has declined with only small increases in activity over the 11 years highlighted. This includes those fished

Table SDPT-10. Characteristics of Vessels Owned by Residents of Sand Point, 1995-2006

Characteristics	Year											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Number of Vessels	249	241	237	231	236	224	220	190	169	164	150	135
Number of Vessels Fishing	242	234	229	221	228	218	215	185	165	162	148	133
Number of Vessels By Size												
0-26 feet length overall	140	135	136	133	138	129	125	98	85	82	72	66
27-32 feet length overall	11	11	12	10	9	9	15	18	14	14	11	9
33-49 feet length overall	74	60	50	50	52	51	49	45	43	41	41	40
50-59 feet length overall	18	30	33	33	32	32	29	28	26	26	25	19
60-124 feet length overall	5	4	5	4	4	5	3	2	2	1	1	1
125+ feet length overall	1	1	1	1	1							
Average Age of Vessels (years)	17	17	18	19	19	20	20	21	22	23	23	24
Number of Vessels by Hull Type												
Aluminum	58	57	58	64	72	72	73	64	58	57	51	49
Fiberglass/Plastic	72	70	68	68	71	72	71	67	66	67	64	59
Rubber	1	1	1	1	1	1	1	1				
Iron/Steel/Alloy	18	18	17	17	17	17	13	13	11	10	9	7
Wood	99	94	92	80	74	63	62	46	35	30	26	20
Number of Vessels with Refrigeration	31	31	34	36	36	39	35	37	35	36	34	25
Number of Vessels Using Diesel	142	135	128	126	127	126	122	112	105	101	96	83

Note: CFEC analysts provided vessel registration data of all resident vessel owners by community and year. Vessel registration data are available on the internet at www.cfec.state.ak.us/fishery_statistics/vessels.htm. The data were summarized by Northern Economics, Inc.
Source: CFEC Vessel Registration Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table SDPT-11. Distribution of Permit Holders across Fisheries for Sand Point, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in Only One Major Fishery Group												
Salmon (SM)	25	27	23	20	26	23	26	32	35	34	38	30
Groundfish (GF)	6	7	25	19	14	16	14	15	13	14	10	10
Halibut and Sablefish (HS)	2	1	0	1	1	2	4	4	5	4	4	5
Crab/all other species (CO)	2	2	2	1	0	0	1	2	3	3	3	1
Persons with Permits in Two Major Fishery Groups												
SM, HS	17	14	11	17	16	14	11	12	10	7	8	10
SM, GF	8	13	20	21	20	25	14	19	18	16	8	15
SM, CO	2	1	2	2	1	1	2	1	0	0	2	3
HS, GF	3	4	2	1	2	2	2	4	3	2	1	2
HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
GF, CO	3	5	5	7	6	4	6	3	3	4	4	0
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	20	26	29	27	26	24	13	21	20	23	9	15
SM, HS, CO	3	4	1	0	0	0	1	0	1	0	0	0
HS, GF, CO	2	1	0	0	0	0	0	0	1	0	0	0
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	28	20	16	10	10	6	17	8	9	8	17	8
Total of All Permit Holders												
All Fisheries	121	125	136	126	122	117	111	121	121	115	104	99

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table SDPT-12. Percentage Distribution of Permit Holders across Fisheries for Sand Point, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in only One Major Fishery Group												
Salmon (SM)	21%	22%	17%	16%	21%	20%	23%	26%	29%	30%	37%	30%
Groundfish (GF)	5%	6%	18%	15%	11%	14%	13%	12%	11%	12%	10%	10%
Halibut and Sablefish (HS)	2%	1%	-	1%	1%	2%	4%	3%	4%	3%	4%	5%
Crab/all other species (CO)	2%	2%	1%	1%	-	-	1%	2%	2%	3%	3%	1%
Subtotal, One Fishery Group	29%	30%	37%	33%	34%	35%	41%	44%	46%	48%	53%	46%
Persons with Permits in Two Major Fishery Groups												
SM, HS	14%	11%	8%	13%	13%	12%	10%	10%	8%	6%	8%	10%
SM, GF	7%	10%	15%	17%	16%	21%	13%	16%	15%	14%	8%	15%
SM, CO	2%	1%	1%	2%	1%	1%	2%	1%	-	-	2%	3%
HS, GF	2%	3%	1%	1%	2%	2%	2%	3%	2%	2%	1%	2%
HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
GF, CO	2%	4%	4%	6%	5%	3%	5%	2%	2%	3%	4%	-
Subtotal, Two Fishery Groups	27%	30%	29%	38%	37%	39%	32%	32%	28%	25%	22%	30%
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	17%	21%	21%	21%	21%	21%	12%	17%	17%	20%	9%	15%
SM, HS, CO	2%	3%	1%	-	-	-	1%	-	1%	-	-	-
HS, GF, CO	2%	1%	-	-	-	-	-	-	1%	-	-	-
Subtotal, Three Fishery Groups	21%	25%	22%	21%	21%	21%	13%	17%	18%	20%	9%	15%
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	23%	16%	12%	8%	8%	5%	15%	7%	7%	7%	16%	8%
Total of All Permit Holders												
All Fisheries	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table SDPT-13. Summary Catch and Earnings Estimates for Sand Point Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Held											
Halibut	75	68	60	60	57	52	47	49	46	43	40
IFQ Sablefish	2	4	1	1	1	1	2	3	4	1	-
Salmon Seine	49	47	46	46	46	45	47	47	43	43	38
Salmon Drift Net	13	13	12	11	10	9	9	9	11	10	8
Salmon Set Net	46	50	45	48	46	45	45	48	44	41	41
Salmon Other Gear	1	1	1	1	1	1	1	1	1	-	1
Herring	37	39	37	25	22	19	14	13	16	13	8
Groundfish Longline	25	24	16	9	8	7	12	12	6	5	4
Groundfish Jig	32	38	49	43	46	48	51	57	59	54	48
Groundfish Pot	31	33	49	56	51	47	41	35	38	36	30
Groundfish Trawl	33	33	32	32	31	31	24	26	20	15	17
Tanner Crab	3	3	2	1	2	2	35	2	1	2	37
King Crab	16	16	11	10	4	2	3	2	3	2	-
All other fish/Shellfish	14	9	10	9	8	1	2	3	2	3	1
Total	377	378	371	352	333	310	333	307	294	268	273
Permits Fished											
Halibut	40	40	43	35	43	38	36	40	38	32	29
IFQ Sablefish	-	1	1	1	-	-	1	-	-	-	-
Salmon Seine	48	42	37	40	37	35	38	22	20	18	20
Salmon Drift Net	14	13	12	10	11	10	7	6	7	9	7
Salmon Set Net	41	46	43	47	42	40	41	38	34	34	34
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	13	16	18	10	8	6	5	4	3	1	-
Groundfish Longline	3	2	1	1	1	-	2	-	1	-	-
Groundfish Jig	10	8	22	13	7	13	24	29	40	31	26
Groundfish Pot	16	14	21	36	31	33	20	26	30	31	21
Groundfish Trawl	27	25	25	27	26	23	19	18	16	11	13
Tanner Crab	-	1	1	1	2	2	28	1	1	2	29
King Crab	12	10	6	8	2	2	2	1	3	2	-
All other fish/Shellfish	2	-	1	-	-	-	1	1	1	2	-
Total	226	218	231	229	210	202	224	186	194	173	179

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Table SDPT-13. (continued)

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Landings (pounds)											
Halibut	186,552	195,634	535,117	492,398	796,221	906,352	791,144	866,215	821,588	702,149	530,210
IFQ Sablefish	-	24,595	6,528	8,366	-	-	15,371	-	-	-	-
Salmon Seine	33,262,296	7,678,079	5,821,499	15,772,964	19,662,835	9,568,110	12,448,571	8,161,996	6,485,108	15,632,263	16,697,423
Salmon Drift Net	1,415,092	722,358	675,701	516,775	511,792	574,406	254,855	279,292	260,983	557,641	784,423
Salmon Set Net	-	4,375	3,469	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	998,090	1,810,155	2,040,817	1,405,203	1,389,417	694,069	1,221,603	2,023,287	926,679	-	-
Groundfish Longline	42,569	89,748	15,368	8,854	94,310	-	7,959	-	89,441	-	-
Groundfish Jig	154,318	101,062	204,235	242,840	136,820	181,828	635,749	1,007,081	1,706,996	646,565	911,089
Groundfish Pot	1,021,223	4,520,673	2,293,582	4,635,251	7,114,676	6,652,304	4,347,264	7,462,039	11,070,998	9,734,286	4,855,427
Groundfish Trawl	20,088,283	34,380,398	38,530,753	30,437,547	33,799,204	31,353,694	39,883,693	25,267,754	18,236,374	20,166,734	31,374,645
Tanner Crab	-	100,990	396,834	744,090	899,057	166,923	100,315	114,455	136,629	104,948	253,231
King Crab	140,868	108,115	81,070	116,668	42,208	36,022	15,510	-	61,814	72,082	-
All other fish/Shellfish	4,178	38,818	45,692	26,867	7,807	1,453	12,017	171,769	157,061	105,503	48,162
Total	57,313,471	49,775,000	50,650,666	54,407,824	64,454,347	50,135,162	59,734,051	45,353,887	39,953,671	47,722,170	55,454,610
Estimated Gross Revenue (dollars)											
Halibut	$346,805.00	$388,809.45	$1,046,676.00	$469,435.00	$1,412,238.00	$2,324,210.63	$1,566,977.90	$1,750,075.89	$2,285,803.50	$1,980,912.60	$1,548,250.75
IFQ Sablefish	-	$49,461.29	$14,062.60	$11,651.78	-	-	$27,678.20	-	-	-	-
Salmon Seine	$9,331,917.83	$2,292,746.28	$2,340,952.00	$4,241,863.00	$5,918,159.00	$3,132,942.00	$1,817,063.89	$1,306,921.15	$1,045,627.27	$3,077,434.00	$3,571,934.00
Salmon Drift Net	$1,390,421.58	$568,907.17	$562,835.48	$476,351.30	$513,797.73	$425,616.85	$125,788.73	$128,511.01	$144,696.59	$307,793.00	$499,963.90
Salmon Set Net	$2,960,617.00	$2,371,385.86	$2,627,868.50	$3,303,939.00	$4,297,416.00	$2,297,798.00	$1,015,656.00	$850,628.00	$1,300,539.00	$1,602,265.00	$2,824,649.00
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
HIerring	$317,186.04	$607,112.61	$352,276.44	$264,030.67	$349,683.63	$138,813.43	$208,894.00	$331,819.00	$115,594.67	-	-
Groundfish Longline	$8,073.00	$36,361.82	$3,704.67	$1,753.75	$31,429.44	-	$1,963.50	-	$27,281.91	-	-
Groundfish Jig	$41,637.00	$23,912.00	$39,880.50	$40,429.00	$39,950.56	$49,549.00	$159,121.00	$218,911.00	$458,018.00	$150,470.00	$232,396.00
Groundfish Pot	$194,263.13	$1,108,399.43	$413,950.33	$749,876.65	$1,821,080.43	$2,005,804.71	$1,039,904.56	$1,569,421.43	$2,894,160.44	$2,298,550.75	$1,231,799.00
Groundfish Trawl	$2,660,927.00	$4,300,346.00	$5,267,413.00	$3,022,553.00	$4,907,587.00	$5,938,839.00	$5,165,263.00	$3,284,631.00	$2,058,703.11	$2,250,174.38	$3,959,749.00
Tanner Crab	-	$141,734.80	$312,704.75	$420,411.00	$883,773.33	$308,265.50	$150,356.00	$157,224.43	$252,061.50	$221,935.75	$428,403.68
King Crab	$496,771.00	$362,507.94	$232,127.14	$278,852.71	$264,473.17	$171,627.14	$74,077.56	-	$313,990.00	$341,618.20	-
All other fish/Shellfish	$2,552.51	$2,573.75	$660.80	-	-	-	$16,364.00	$11,938.60	$24,269.00	$35,563.10	-
Total	$17,751,171.10	$12,254,258.39	$13,215,112.22	$13,281,146.86	$20,439,588.28	$16,793,466.27	$11,369,108.33	$9,610,081.51	$10,920,744.99	$12,266,716.78	$14,297,145.33
Total in 2005 Constant Dollars	$22,748,055.88	$15,253,388.55	$16,080,444.96	$15,912,932.40	$23,960,693.82	$19,046,248.33	$12,544,558.51	$10,432,734.40	$11,591,421.18	$12,682,317.56	$14,297,145.33

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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permits for halibut, salmon (seine and set net), herring, and groundfish trawl. Landings in the recent past have been highest for salmon seine and groundfish trawl, with groundfish pot landings also adding a significant amount to the overall total. Effects from the absence of some fisheries, the overall decline of permits owned, and the overall decline in the number of permits fished, can be seen in the relationship between total poundage and value for the years 1995 to 2005. The relationship between these values suggests that, as total pounds have changed over the years, total value has similarly increased or decreased. When comparing values for 1995 and 2005, however, it can be seen that, despite a total poundage that is generally similar, the total real value was substantially higher in 1995.

Table SDPT-14 provides estimates of the percentage of non-confidential gross revenue for Sand Point permit holders by species group, by year, for the period 1995 through 2005. These data provide one type of fundamental measure of "dependency" of community harvesters on particular fisheries. As noted above, the salmon seine, salmon set net, and groundfish trawl fisheries are the most lucrative for the relatively recent past (2004 and 2005), with 2005 numbers at 24.98, 19.76, and 27.70 percent of the total estimated gross revenue, respectively. The halibut fishery also contributed 10.83 percent of the total $14,297,145.33 in 2005. These recent percentages are different from those even 11 years ago, however, when the same fisheries were dominant, but in different proportions. No trend is clear in the data. This volatility is true for even the more recent data, where groundfish pot and trawl were relatively equal in their proportion of gross revenue in 2004, only to be separated by over 19 percentage points and $2.7 million dollars in 2005.

Communities also directly benefit from the harvest sector through participation of residents as crew members as well as through the engagement of vessel owners and permit holders. Beginning in 2000, the CFEC has produced estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a Crew Member License with the ADF&G. (A more complete discussion of this methodology may be found in Chapter 1.0.) Table SDPT-15 provides estimates of crew members for Sand Point for the years 2000 through 2006. These data should be only taken as a rough indicator of the level of involvement of community members, but they do indicate that a sizeable proportion of the total population of the community is engaged in commercial fisheries.

Table SDPT-15. Estimated Number of Permit Holders and Crew Members from Sand Point, 2000-2006

Year	Permit Holders	Crew Members	Total
2000	116	170	286
2001	CFEC did not report data for 2001		
2002	116	116	232
2003	118	119	237
2004	110	106	216
2005	103	107	210
2006	97	113	210

Source: CFEC 2007b

Spatial Distribution of Harvester Effort

Figure SDPT-1 provides information on the spatial distribution of groundfish catch for vessels owned by Sand Point residents for all gear types for the years 1996 through 2005. Figures SDPT-2, SDPT-3, SDPT-4, and SDPT-5 show the spatial distribution of catch for groundfish in intervals for this same overall time period. These figures show a relatively localized distribution of effort, with a marked concentration of effort in the statistical area containing Popof Island and the community of Sand Point. Activity is also present in statistical areas southeast of Sand Point, near the Shumagin Islands of Nagai and Big Koniuji. More recent distributions (2004-2005) of groundfish effort have been located closer to the Alaskan Peninsula, directly north and west of Sand Point. Still, groundfish effort is present throughout the Shumagin Islands. Figures SDPT-6 and SDPT-7 show breakouts of groundfish catch by gear type (to the extent possible given confidentiality restrictions) for the most recent 2-year interval available (2004-2005). These figures suggest that longline, pot, and jig fishing is more prevalent in waters immediately surrounding Sand Point and in waters surrounding the Shumagin Islands directly south, east, and southeast of Sand Point. Trawl effort is also common in the statistical area immediately surrounding Sand Point but is more common near the bays and inlets closer to the Alaskan Peninsula.

Figure SDPT-8 provides information on the spatial distribution of salmon catch for vessels owned by Sand Point residents for all gear types for the years 1996 through 2005. Figures SDPT-9, SDPT-10, SDPT-11, and SDPT-12 show the spatial distribution of catch for salmon in intervals within the same overall time period. Compared to groundfish, the overall distribution of the salmon harvest spreads farther west, past King Cove, Cold Bay, and False Pass. Effort is concentrated in the waters immediately surrounding Sand Point, especially those to the south. For the time period between 1996 and 2005, a relatively high level of activity was seen in the waters around Unga Island, Nagai Island, Korovin Island, and Fox Bay. For the most recent interval available (2004-2005), these same areas are popular. A small amount of earnings is also attributed to statistical areas close to the Alaska Peninsula, including some areas near False Pass and on the northern edge of the peninsula, east of Nelson Lagoon and west of Port Heiden.

Figure SDPT-13 provides information on the spatial distribution of halibut catch for vessels owned by Sand Point residents for all gear types for the years 1996 through 2005. Figures SDPT-14, SDPT-15, and SDPT-16 show the spatial distribution of catch for halibut in intervals for within this same overall time period. Before 2000, halibut catch was tracked either by standard groundfish statistical area or by International Pacific Halibut Commission (IPHC) statistical areas. Thus, for a complete picture of the halibut catch for years before 2000, both tracking systems must be displayed. Generally, the halibut catch is more localized than the groundfish and salmon fishery, with most activity taking place in the area surrounding Sand Point and the statistical areas contiguous in every direction. Before 2000, halibut from the IPHC statistical area near False Pass was recorded. In more recent years, however, the halibut catch has been largely concentrated in the waters surrounding Sand Point and the southeastern Shumagin Islands.

Table SDPT-14. Percentage of Gross Revenue Estimates for Sand Point Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Gross Revenue (dollars)											
Halibut	$346,805.00	$388,809.45	$1,046,676.00	$469,435.00	$1,412,238.00	$2,324,210.63	$1,566,977.90	$1,750,075.89	$2,285,803.50	$1,980,912.60	$1,548,250.75
IFQ Sablefish	-	$49,461.29	$14,062.60	$11,651.78	-	-	$27,678.20	-	-	-	-
Salmon Seine	$9,331,917.83	$2,292,746.28	$2,340,952.00	$4,241,863.00	$5,918,159.00	$3,132,942.00	$1,817,063.89	$1,306,921.15	$1,045,627.27	$3,077,434.00	$3,571,934.00
Salmon Drift Net	$1,390,421.58	$568,907.17	$562,835.48	$476,351.30	$513,797.73	$425,616.85	$125,788.73	$128,511.01	$144,696.59	$307,793.00	$499,963.90
Salmon Set Net	$2,960,617.00	$2,371,385.86	$2,627,868.50	$3,303,939.00	$4,297,416.00	$2,297,798.00	$1,015,656.00	$850,628.00	$1,300,539.00	$1,602,265.00	$2,824,649.00
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	$317,186.04	$607,112.61	$352,276.44	$264,030.67	$349,683.63	$138,813.43	$208,894.00	$331,819.00	$115,594.67	-	-
Groundfish Longline	$8,073.00	$36,361.82	$3,704.67	$1,753.75	$31,429.44	-	$1,963.50	-	$27,281.91	-	-
Groundfish Jig	$41,637.00	$23,912.00	$39,880.50	$40,429.00	$39,950.56	$49,549.00	$159,121.00	$218,911.00	$458,018.00	$150,470.00	$232,396.00
Groundfish Pot	$194,263.13	$1,108,399.43	$413,950.33	$749,876.65	$1,821,080.43	$2,005,804.71	$1,039,904.56	$1,569,421.43	$2,894,160.44	$2,298,550.75	$1,231,799.00
Groundfish Trawl	$2,660,927.00	$4,300,346.00	$5,267,413.00	$3,022,553.00	$4,907,587.00	$5,938,839.00	$5,165,263.00	$3,284,631.00	$2,058,703.11	$2,250,174.38	$3,959,749.00
Tanner Crab	-	$141,734.80	$312,704.75	$420,411.00	$883,773.33	$308,265.50	$150,356.00	$157,224.43	$252,061.50	$221,935.75	$428,403.68
King Crab	$496,771.00	$362,507.94	$232,127.14	$278,852.71	$264,473.17	$171,627.14	$74,077.56	-	$313,990.00	$341,618.20	-
All other fish/Shellfish	$2,552.51	$2,573.75	$660.80	-	-	-	$16,364.00	$11,938.60	$24,269.00	$35,563.10	-
Total	$17,751,171.10	$12,254,258.39	$13,215,112.22	$13,281,146.86	$20,439,588.28	$16,793,466.27	$11,369,108.33	$9,610,081.51	$10,920,744.99	$12,266,716.78	$14,297,145.33
Total in 2005 Constant Dollars	$22,748,055.88	$15,253,388.55	$16,080,444.96	$15,912,932.40	$23,960,693.82	$19,046,248.33	$12,544,558.51	$10,432,734.40	$11,591,421.18	$12,682,317.56	$14,297,145.33
Percentage of Estimated Gross Revenue											
Halibut	1.95%	3.17%	7.92%	3.53%	6.91%	13.84%	13.78%	18.21%	20.93%	16.15%	10.83%
IFQ Sablefish	-	0.40%	0.11%	0.09%	-	-	0.24%	-	-	-	-
Salmon Seine	52.57%	18.71%	17.71%	31.94%	28.95%	18.66%	15.98%	13.60%	9.57%	25.09%	24.98%
Salmon Drift Net	7.83%	4.64%	4.26%	3.59%	2.51%	2.53%	1.11%	1.34%	1.32%	2.51%	3.50%
Salmon Set Net	16.68%	19.35%	19.89%	24.88%	21.02%	13.68%	8.93%	8.85%	11.91%	13.06%	19.76%
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	1.79%	4.95%	2.67%	1.99%	1.71%	0.83%	1.84%	3.45%	1.06%	-	-
Groundfish Longline	0.05%	0.30%	0.03%	0.01%	0.15%	-	0.02%	-	0.25%	-	-
Groundfish Jig	0.23%	0.20%	0.30%	0.30%	0.20%	0.30%	1.40%	2.28%	4.19%	1.23%	1.63%
Groundfish Pot	1.09%	9.05%	3.13%	5.65%	8.91%	11.94%	9.15%	16.33%	26.50%	18.74%	8.62%
Groundfish Trawl	14.99%	35.09%	39.86%	22.76%	24.01%	35.36%	45.43%	34.18%	18.85%	18.34%	27.70%
Tanner Crab	-	1.16%	2.37%	3.17%	4.32%	1.84%	1.32%	1.64%	2.31%	1.81%	3.00%
King Crab	2.80%	2.96%	1.76%	2.10%	1.29%	1.02%	0.65%	-	2.88%	2.78%	-
All other fish/Shellfish	0.01%	0.02%	0.01%	-	-	-	0.14%	0.12%	0.22%	0.29%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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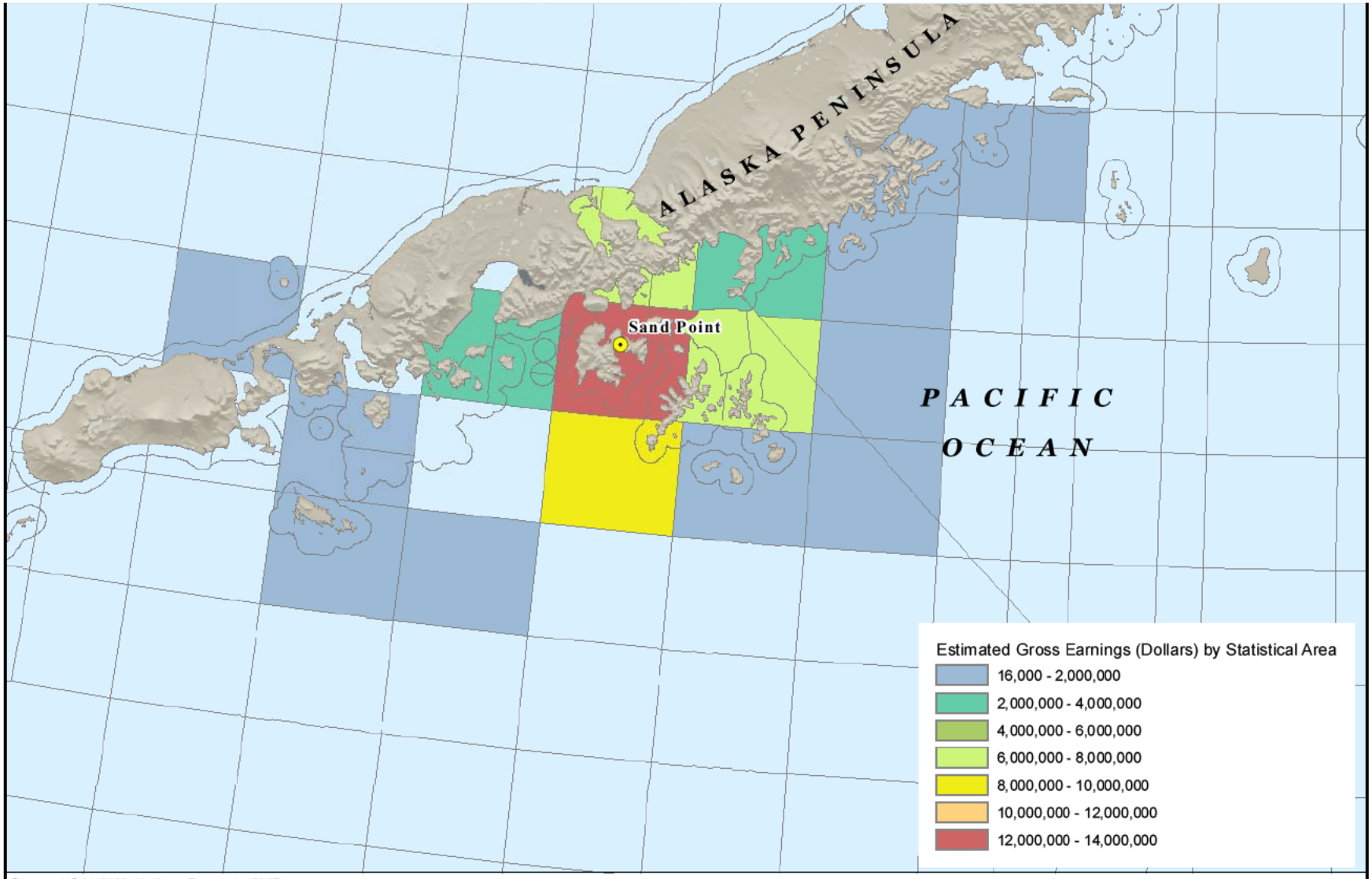

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-1
Commercial Groundfish Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 2005

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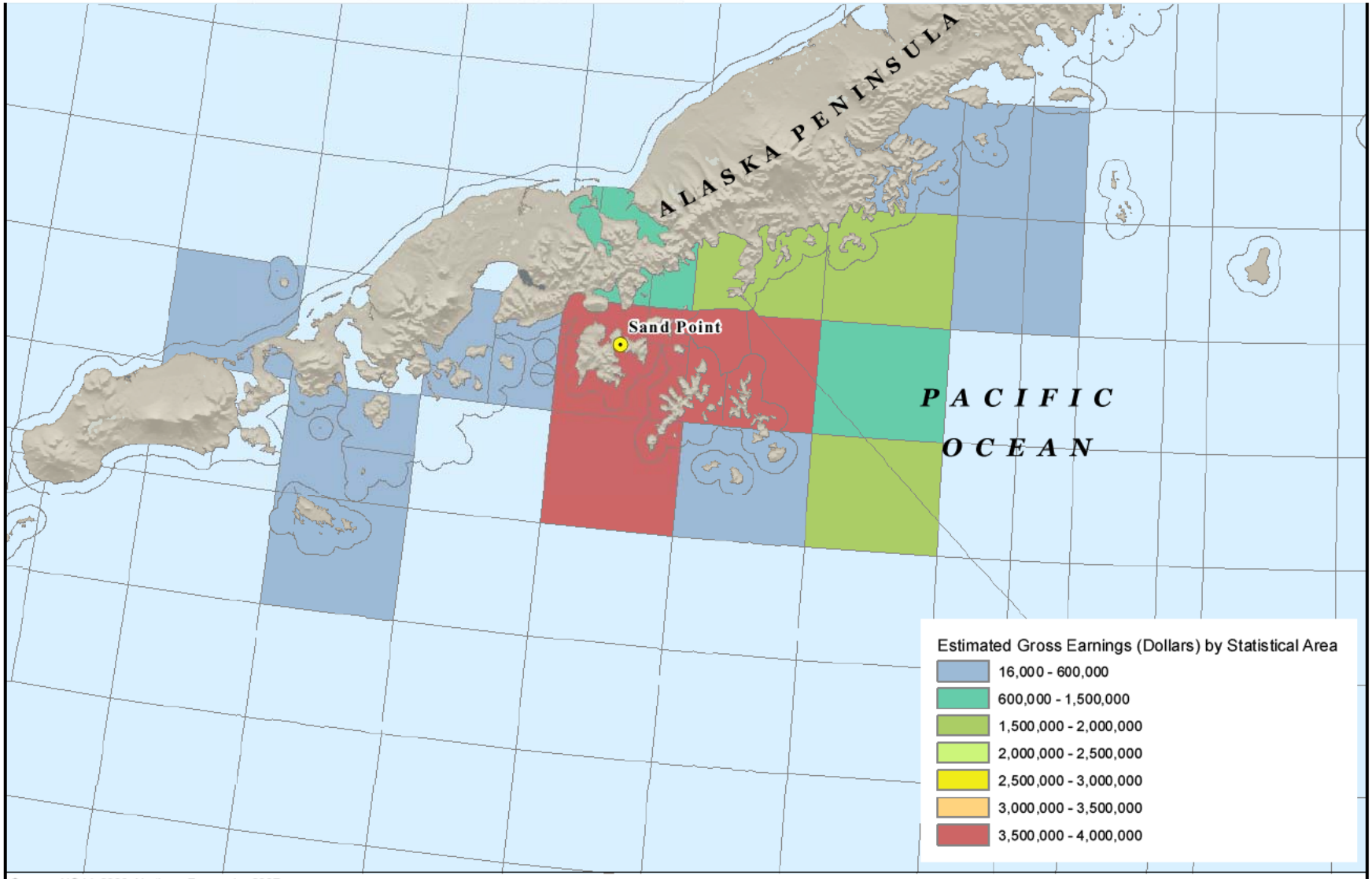

Source: NOAA 2003; Northern Economics 2007

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Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-2
Commercial Groundfish Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 1999

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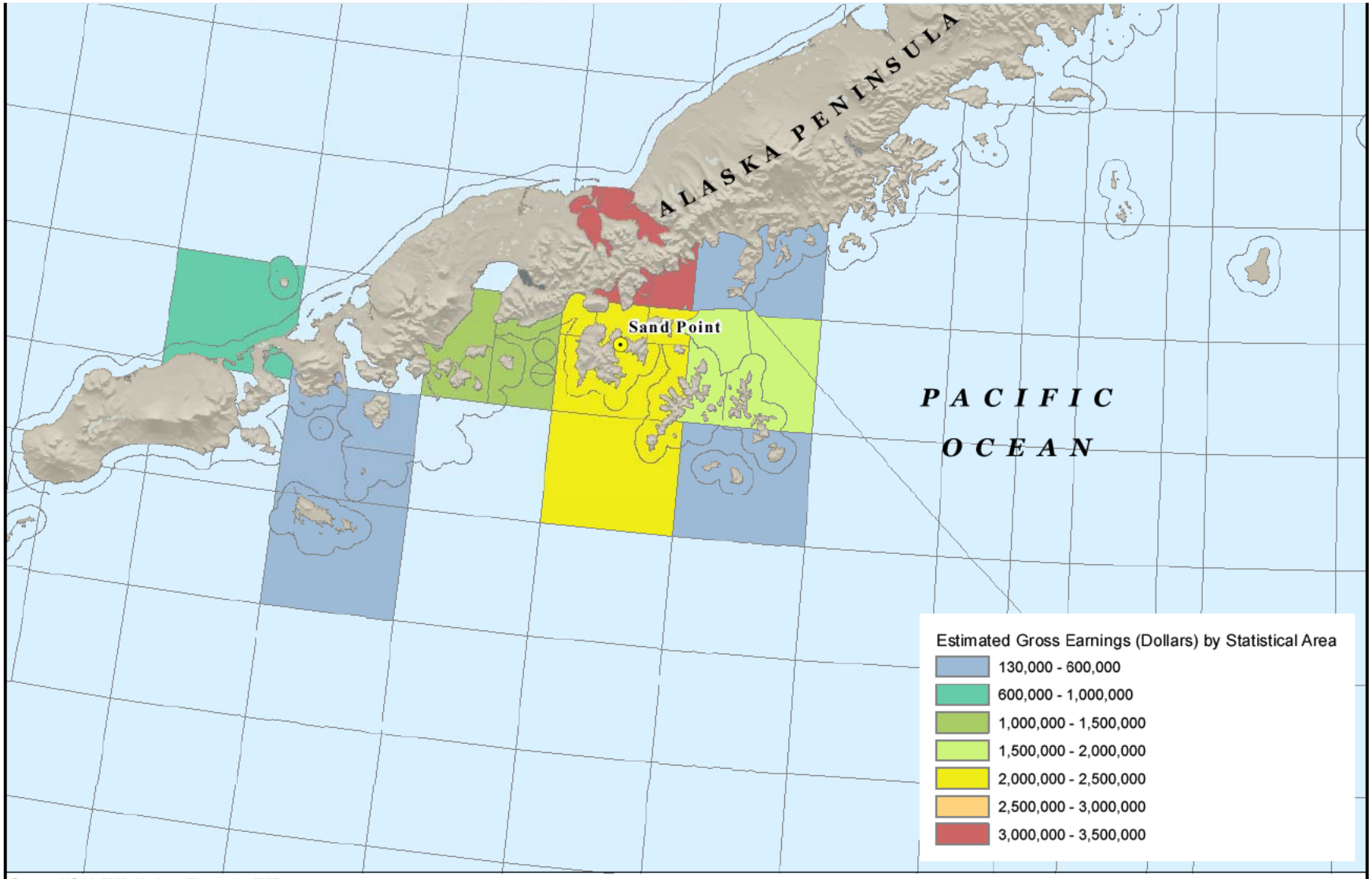

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-3
Commercial Groundfish Catch for Vessels Local to Sand Point, All Gear Types, 2000 - 2001

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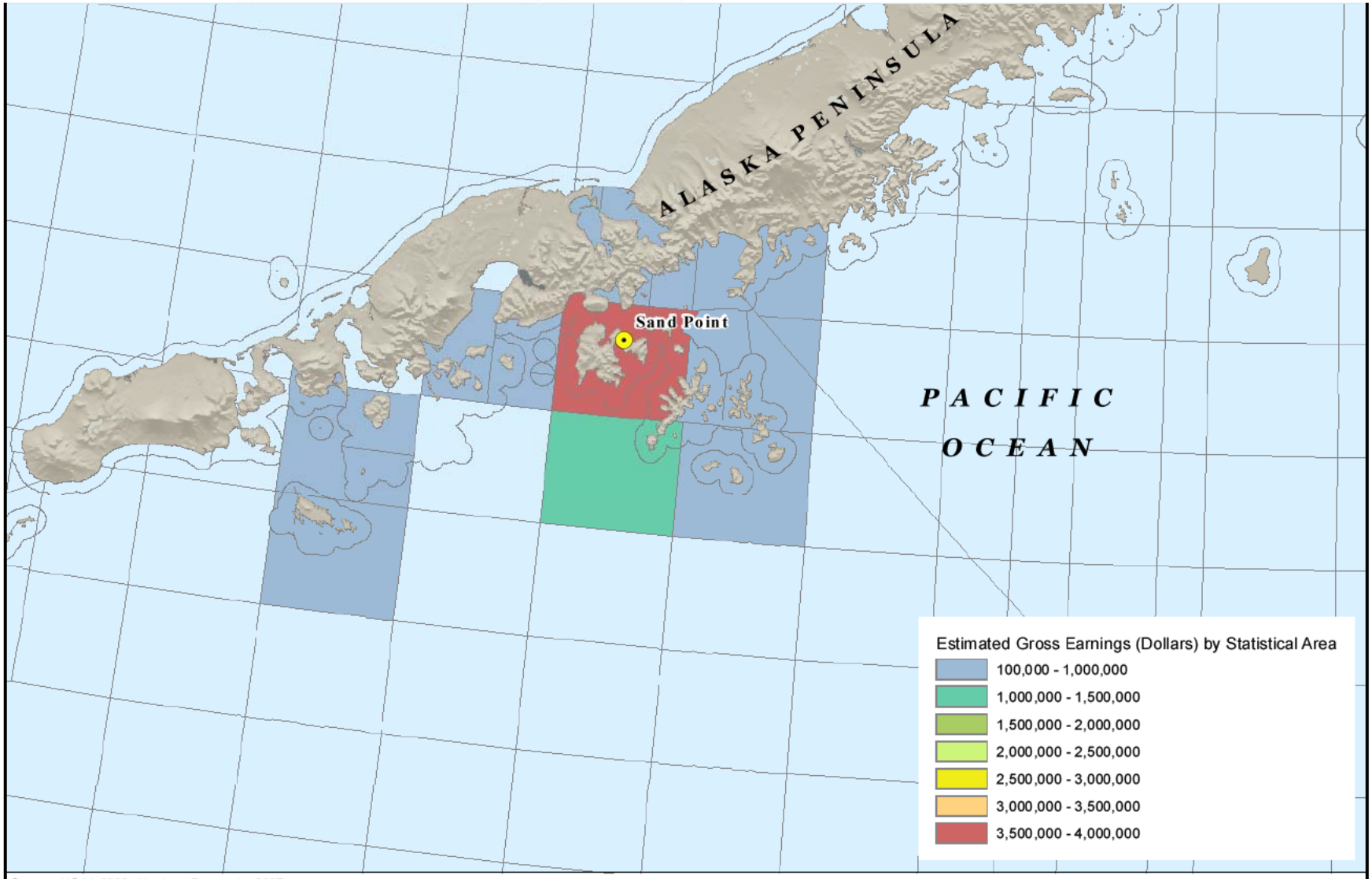

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,000,000 1 inch equals 50 miles

Figure SDPT-4
Commercial Groundfish Catch for Vessels Local to Sand Point, All Gear Types, 2002 - 2003

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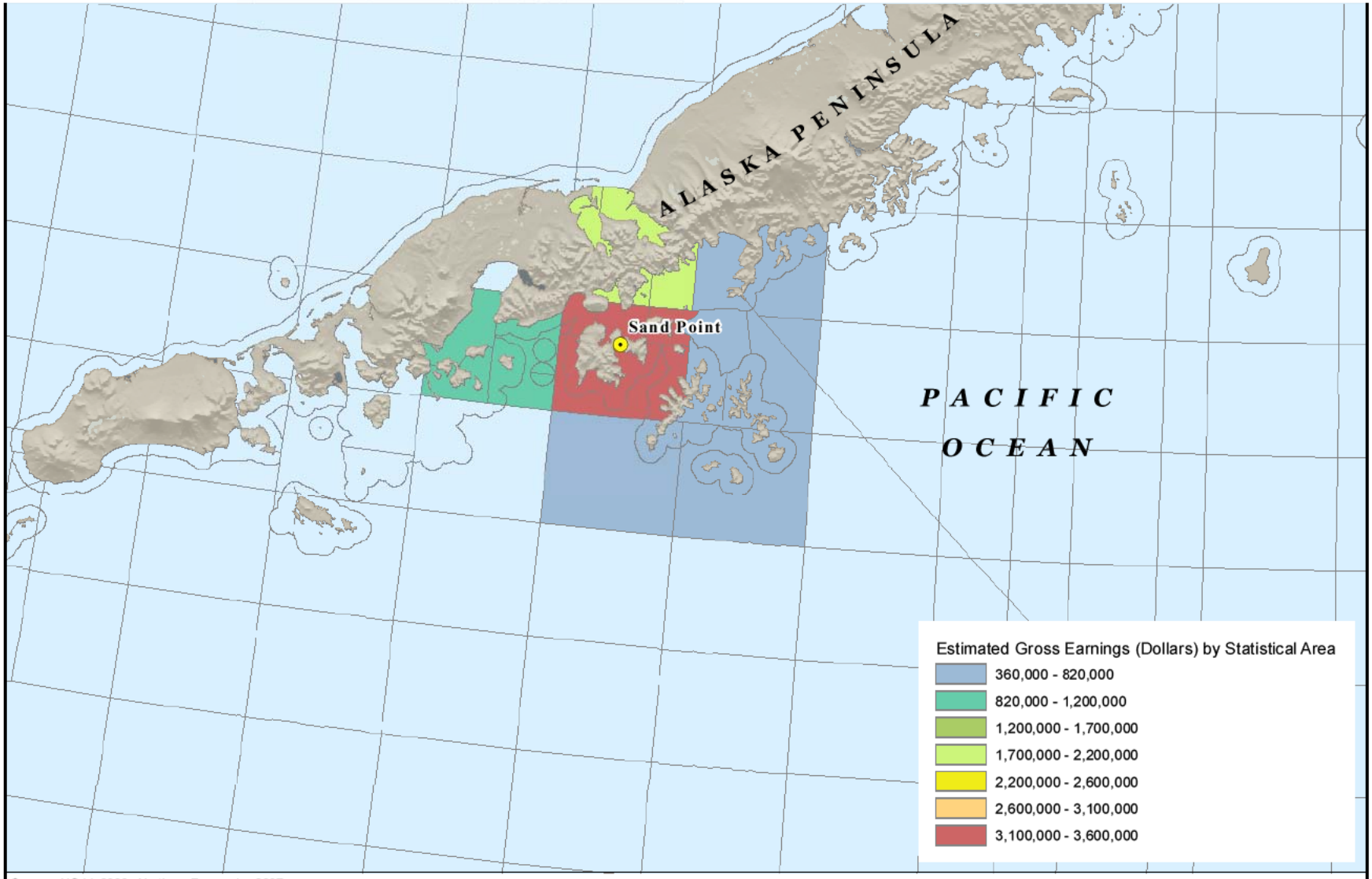

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-5
Commercial Groundfish Catch for Vessels Local to Sand Point, All Gear Types, 2004 - 2005

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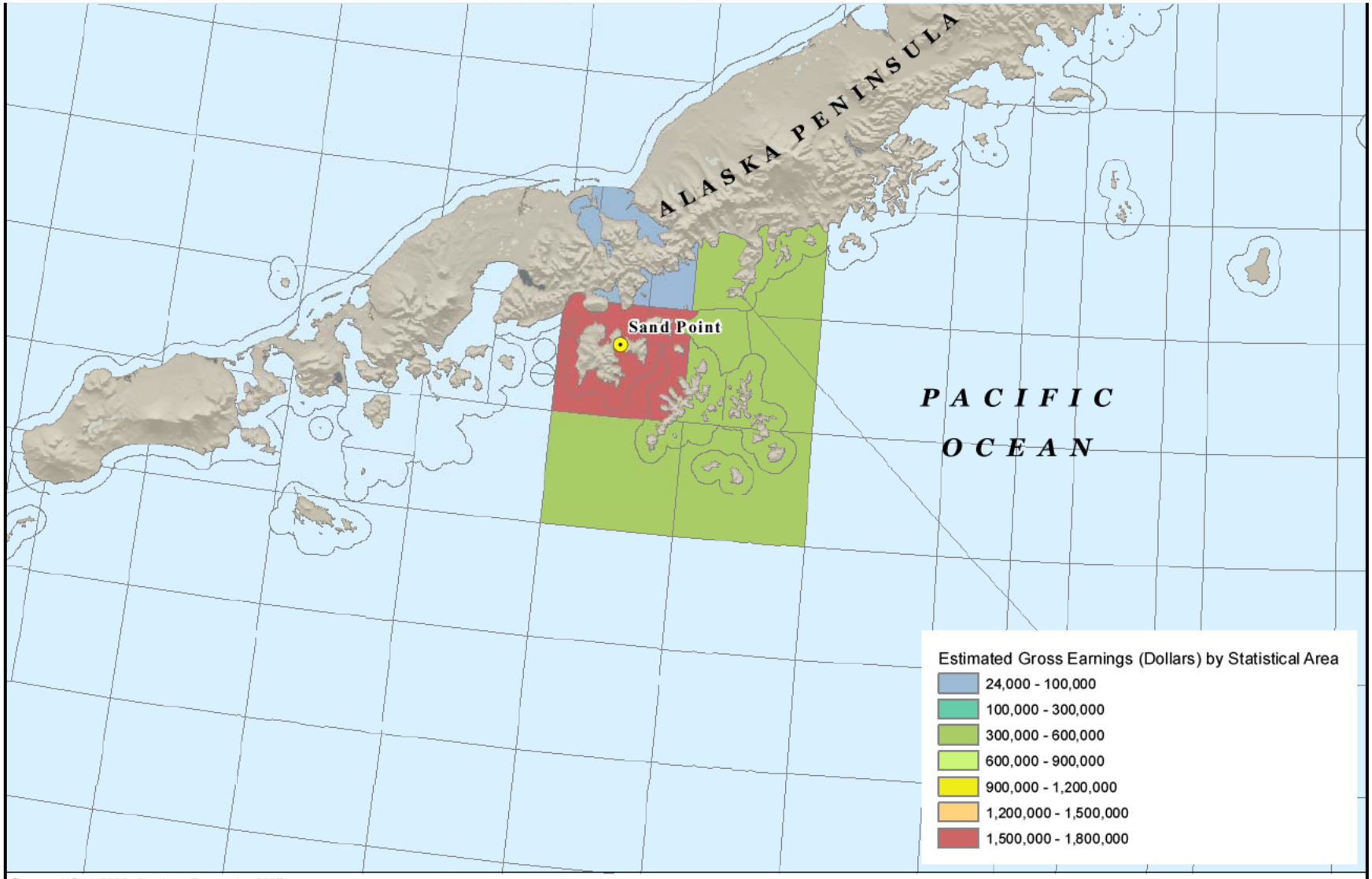

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-6
Commercial Groundfish Catch for Vessels Local to Sand Point, Longline/Pot/Jig Gear Types, 2004 - 2005

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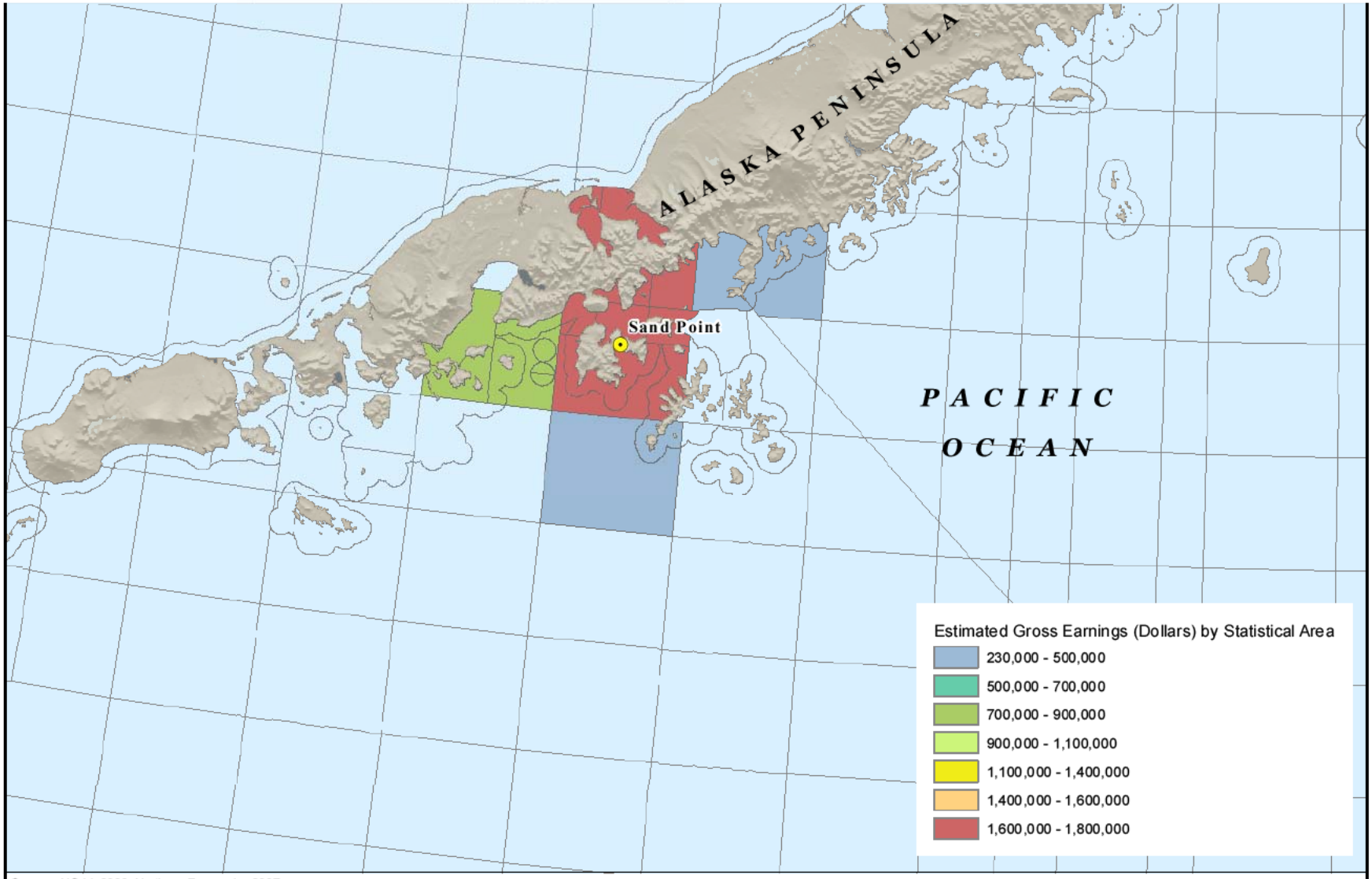

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-7
Commercial Groundfish Catch for Vessels Local to Sand Point, Trawl Gear, 2004 - 2005

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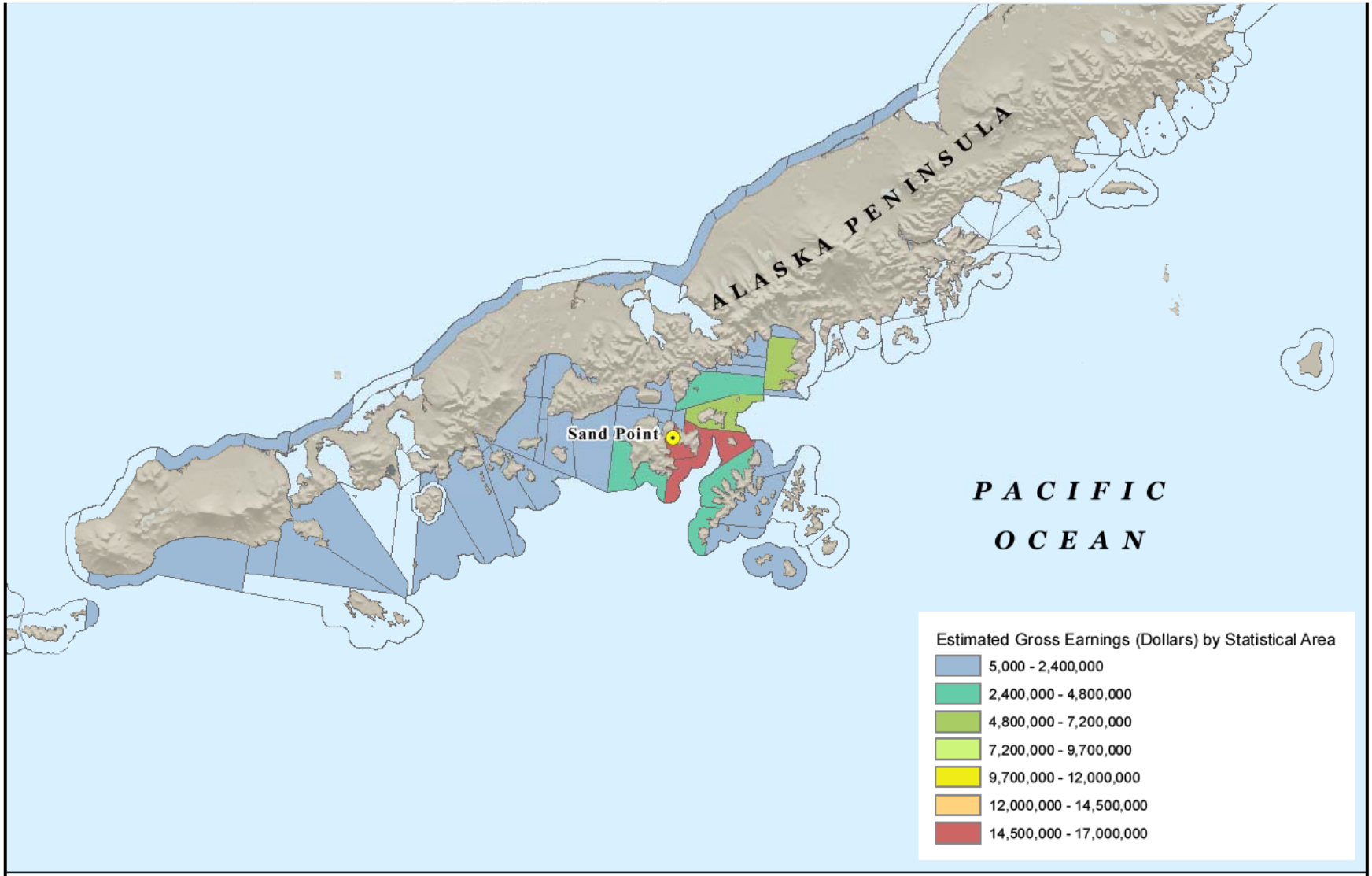

Source: NOAA 2003; Northern Economics 2007

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Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-8
Commercial Salmon Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 2005

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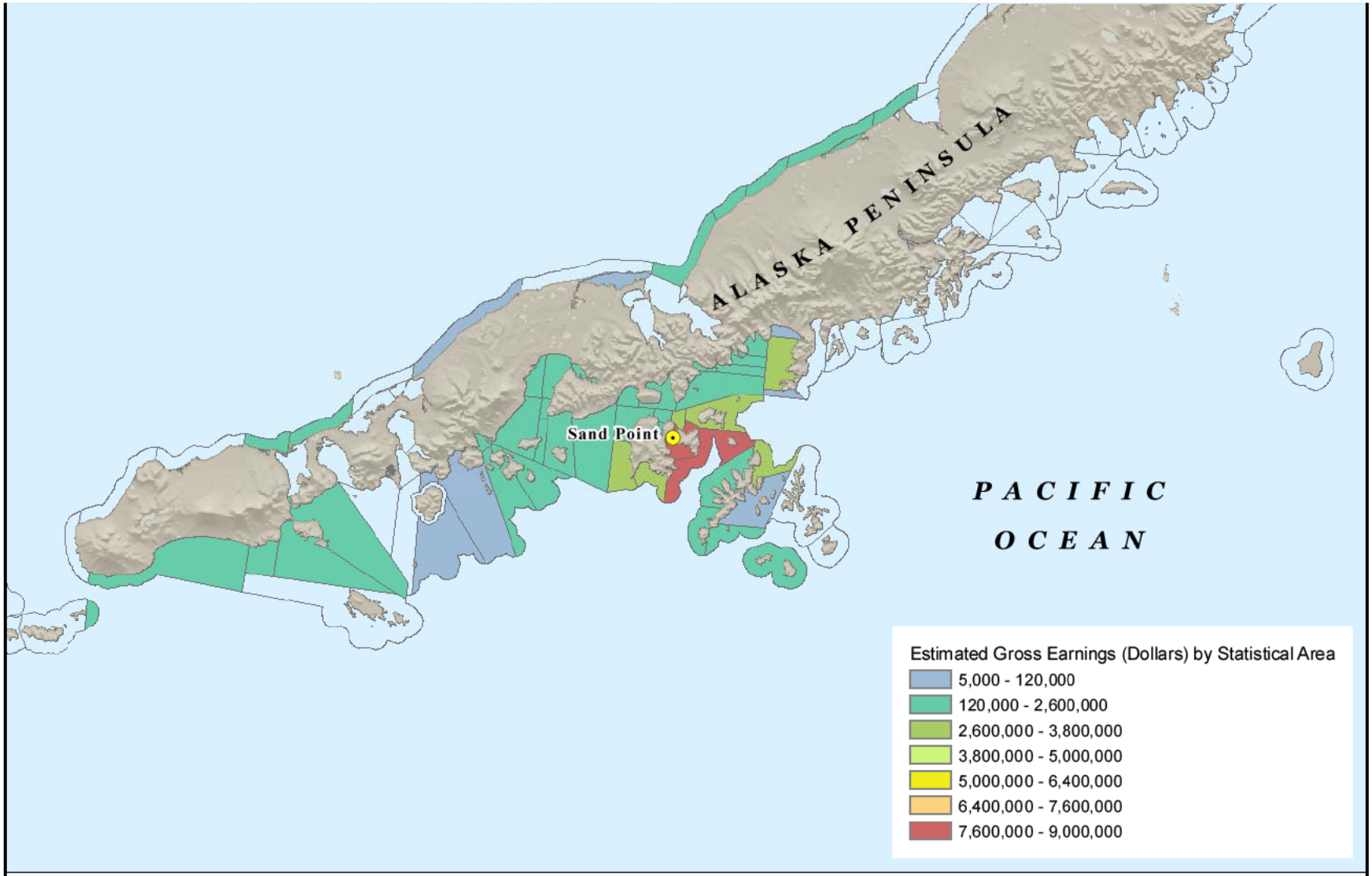

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-9
Commercial Salmon Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 1999

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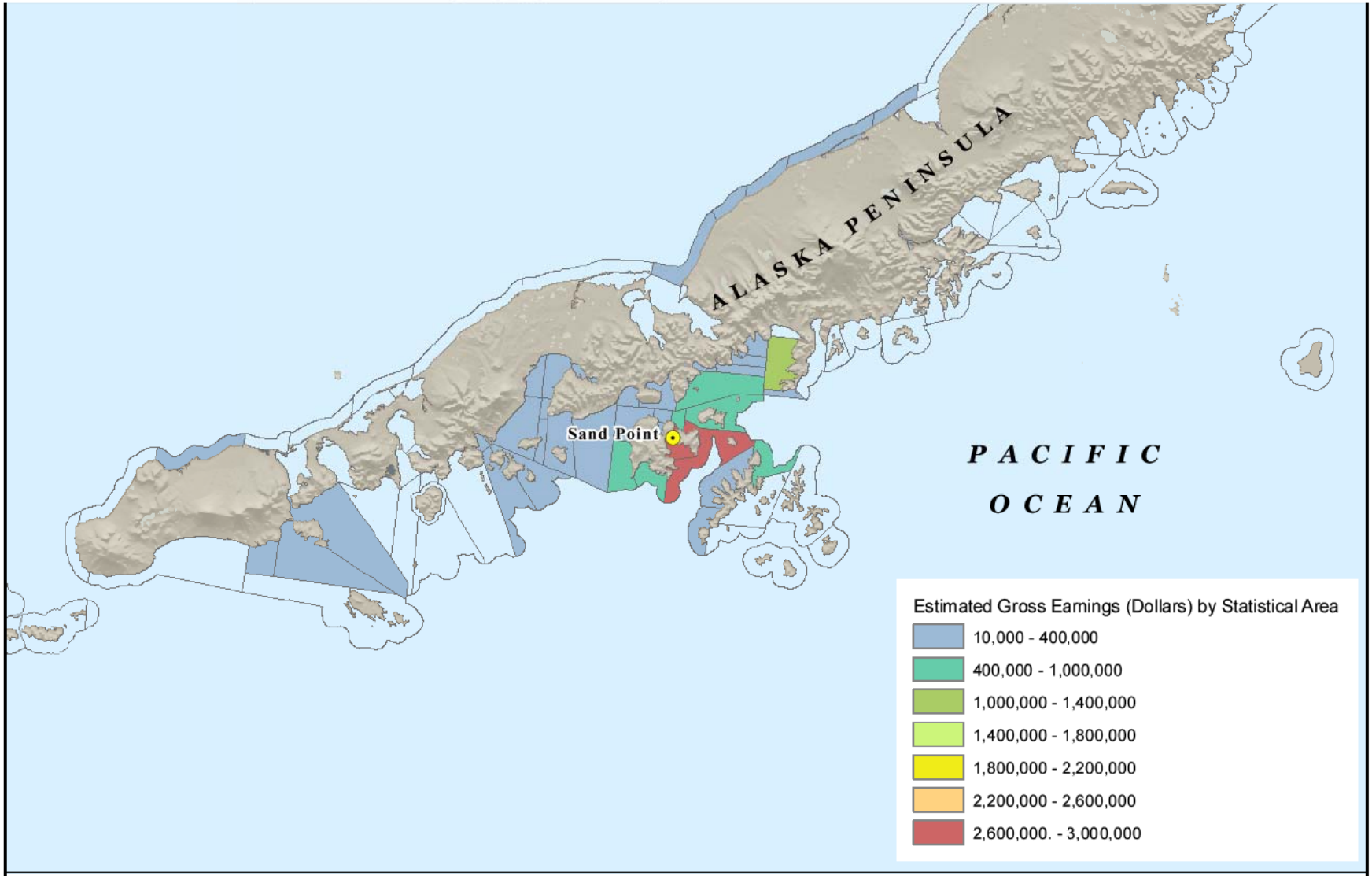

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-10
Commercial Salmon Catch for Vessels Local to Sand Point, All Gear Types, 2000 - 2001

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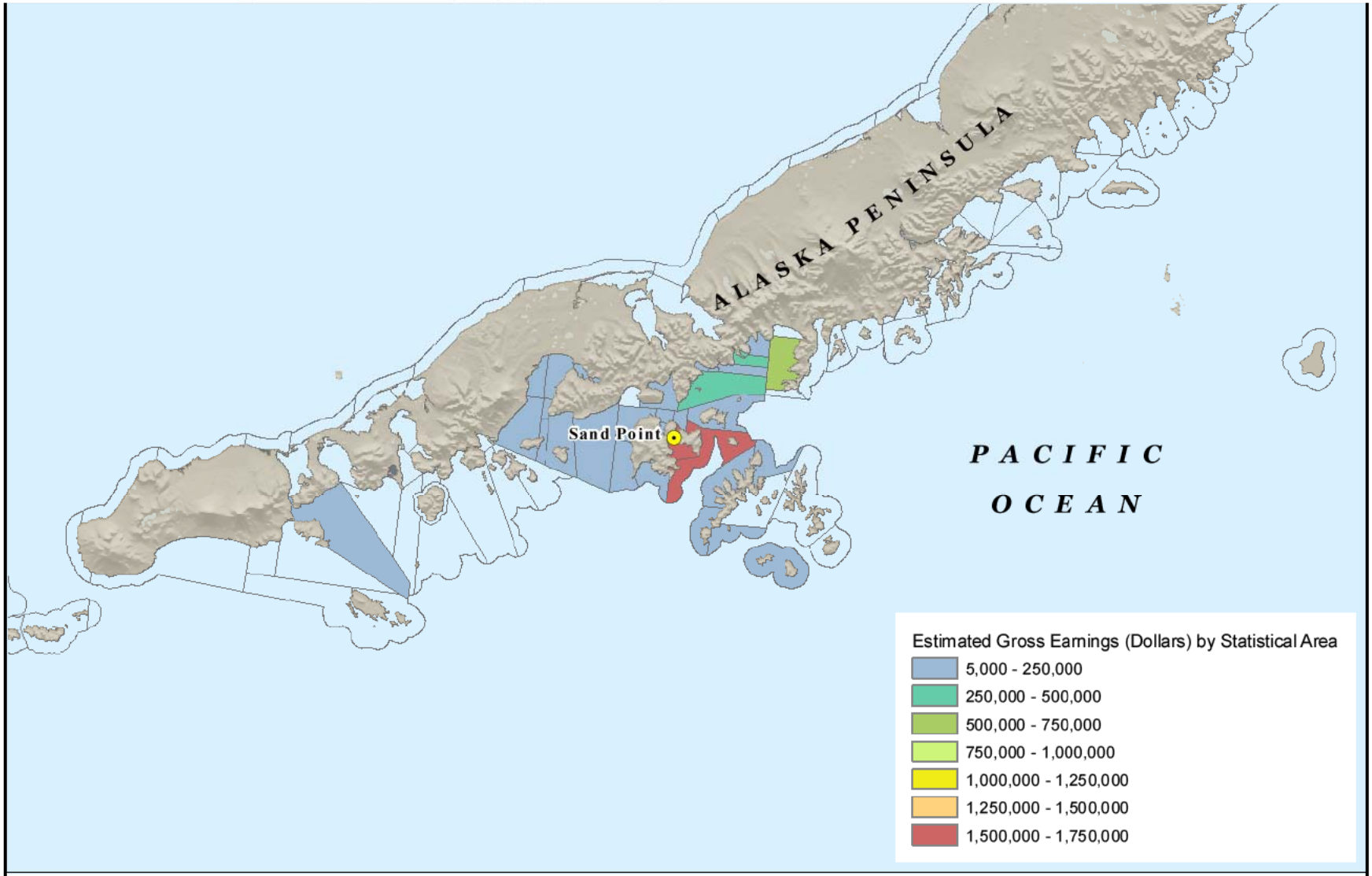

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-11
Commercial Salmon Catch for Vessels Local to Sand Point, All Gear Types, 2002 - 2003

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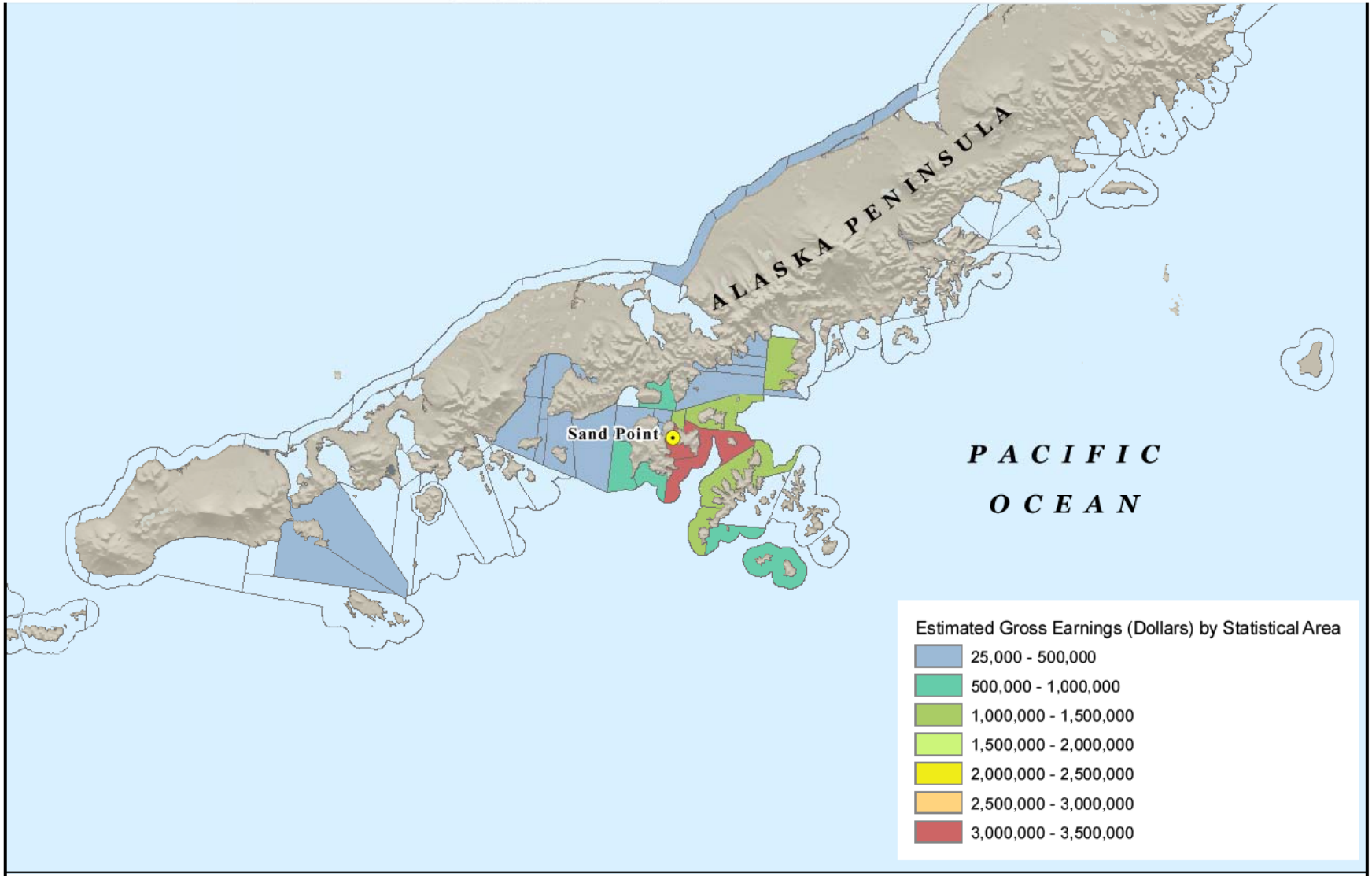

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-12
Commercial Salmon Catch for Vessels Local to Sand Point, All Gear Types, 2004 - 2005

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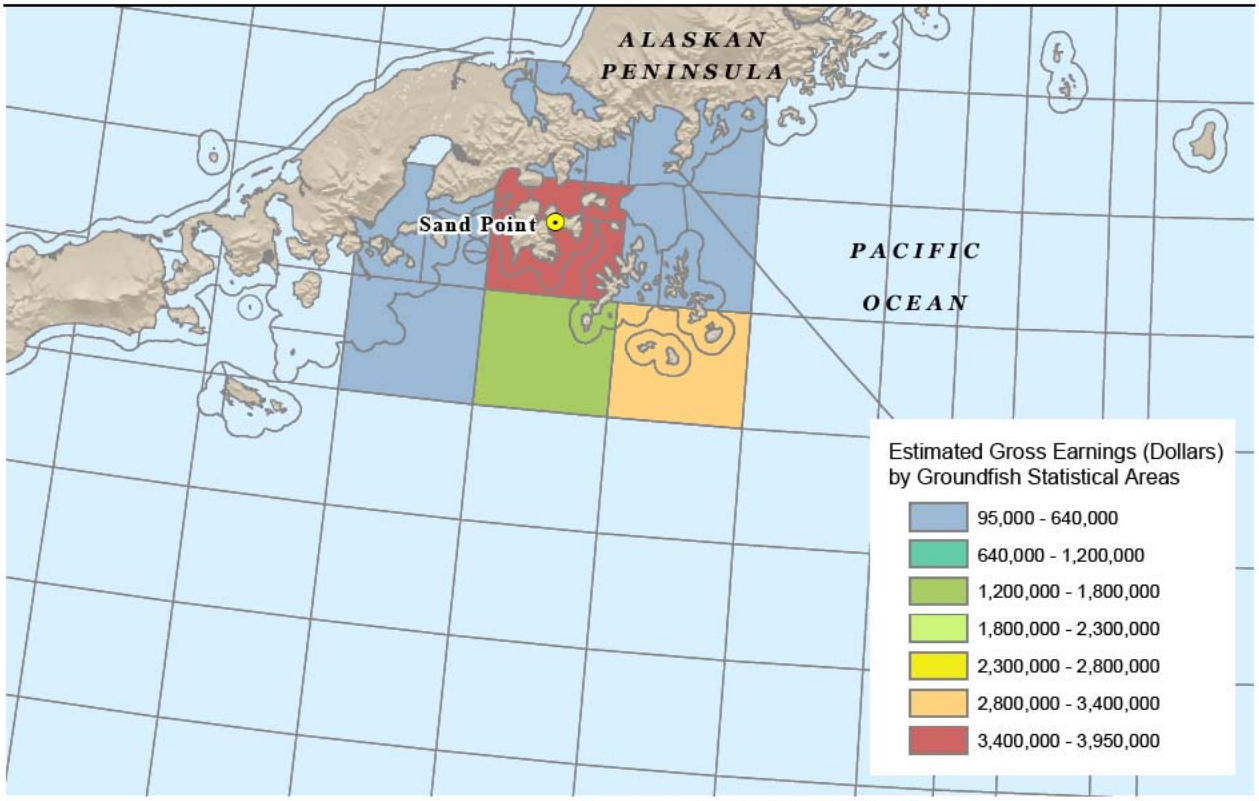

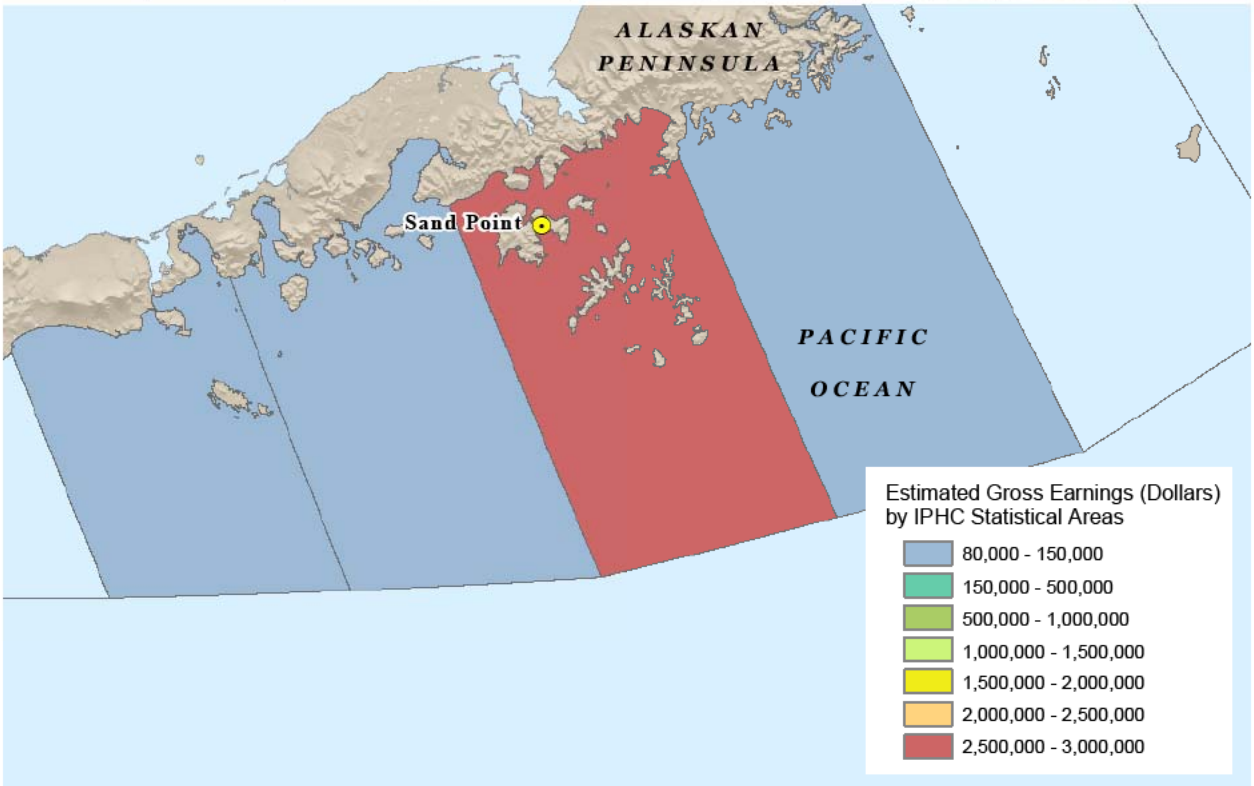

Source: NOAA 2003; Northern Economics 2007

60 30 0 60 Miles

Scale = 1:3,625,000 1 inch equals 60 miles

Figure SDPT-13
Commercial Halibut Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 2005

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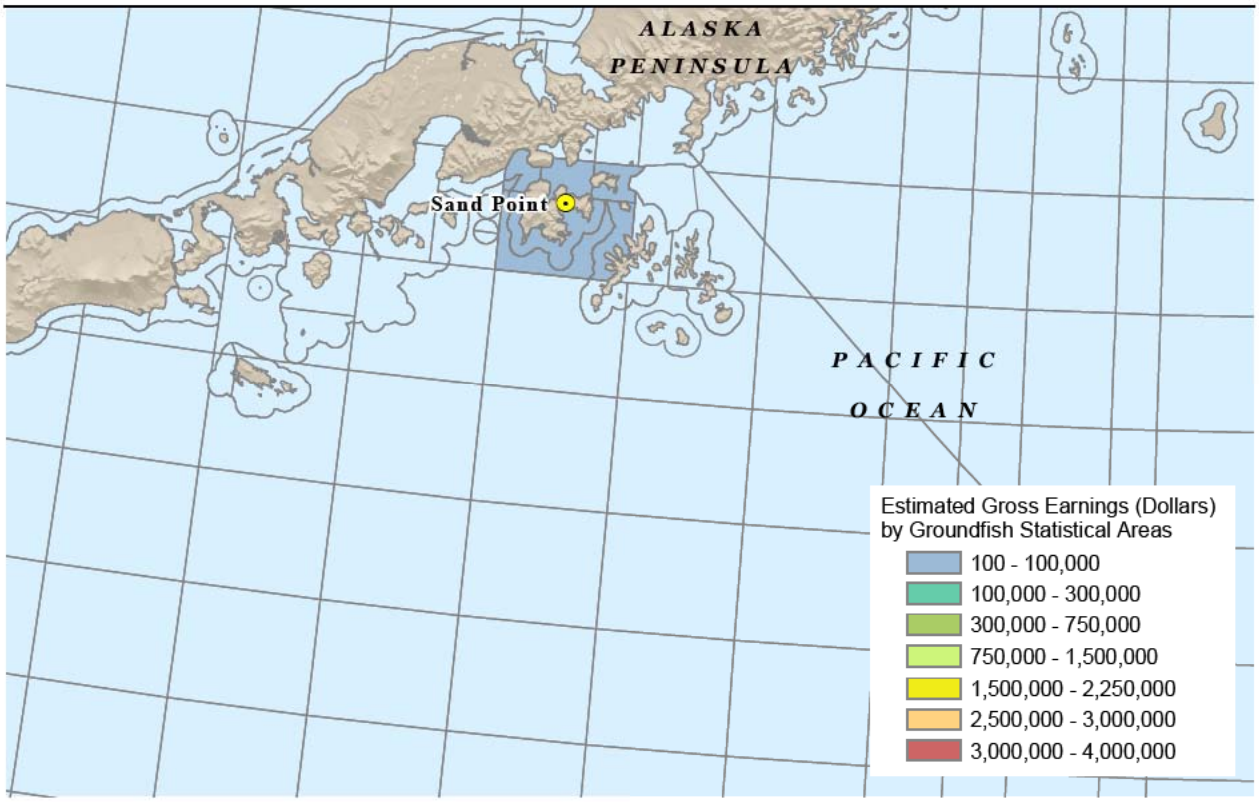

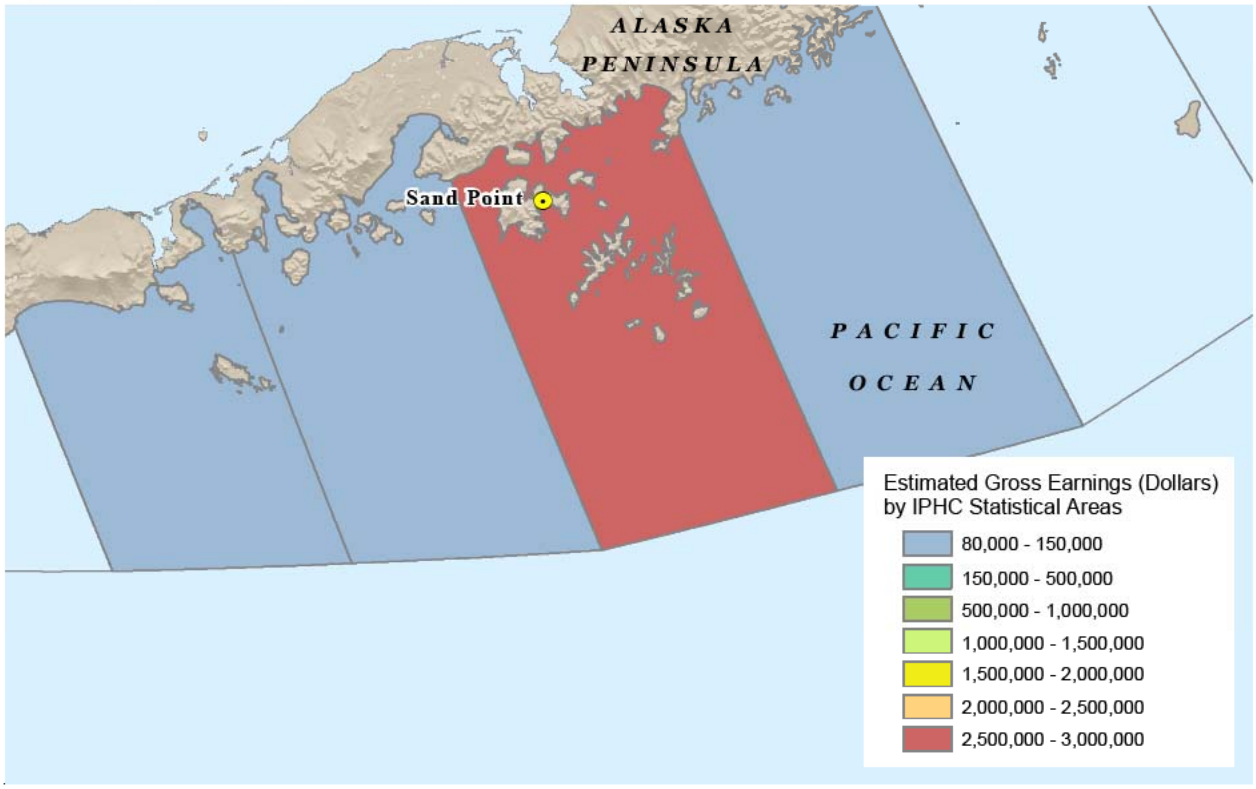

Source: NOAA 2003; Northern Economics 2007

60 30 0 60 Miles

Scale = 1:2,900,000 1 inch equals 60 miles

Figure SDPT-14
Commercial Halibut Catch for Vessels Local to Sand Point, All Gear Types, 1996 - 1999

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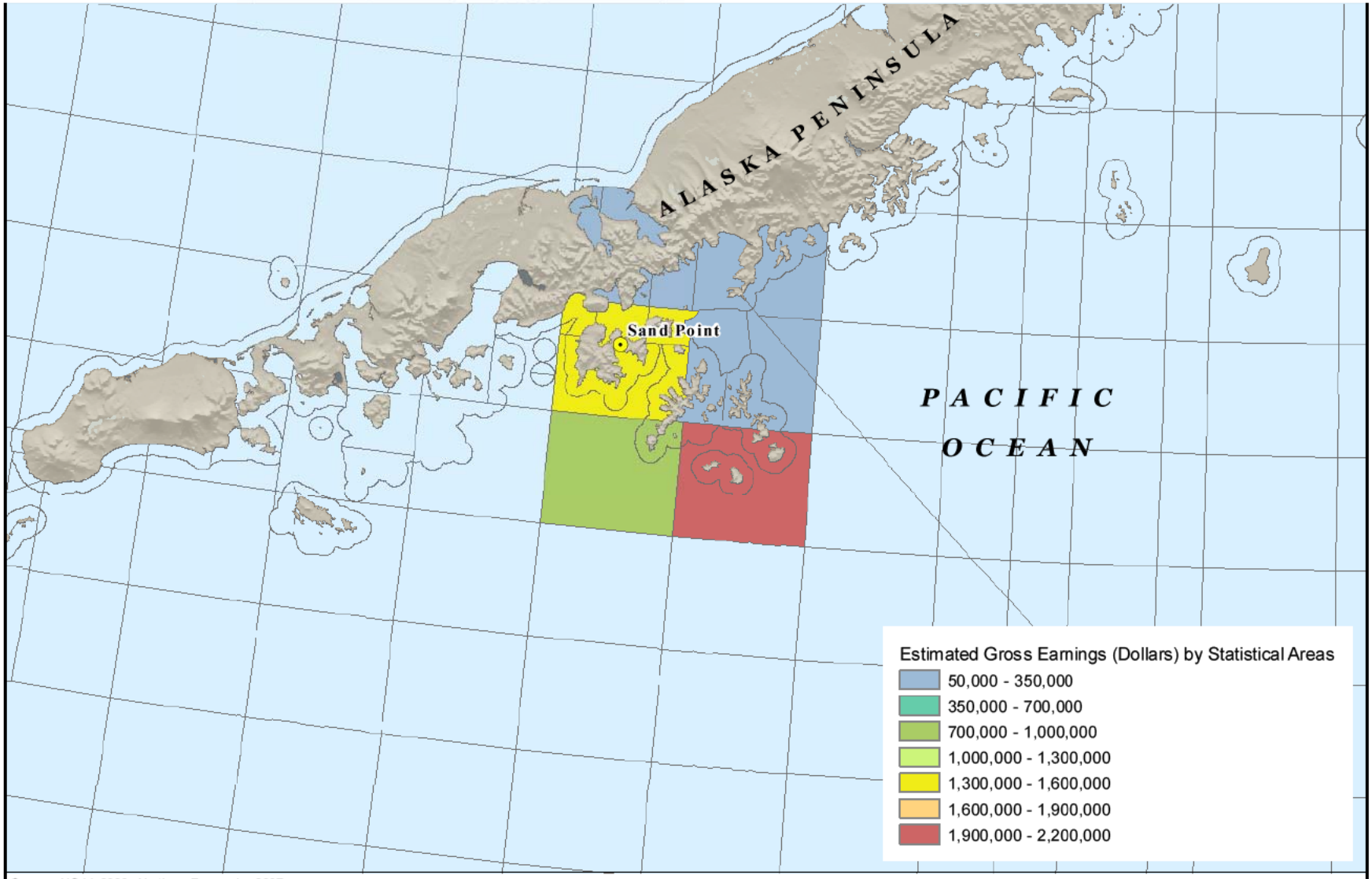

Figure SDPT-15
Commercial Halibut Catch for Vessels Local to Sand Point, All Gear Types, 2000 - 2002

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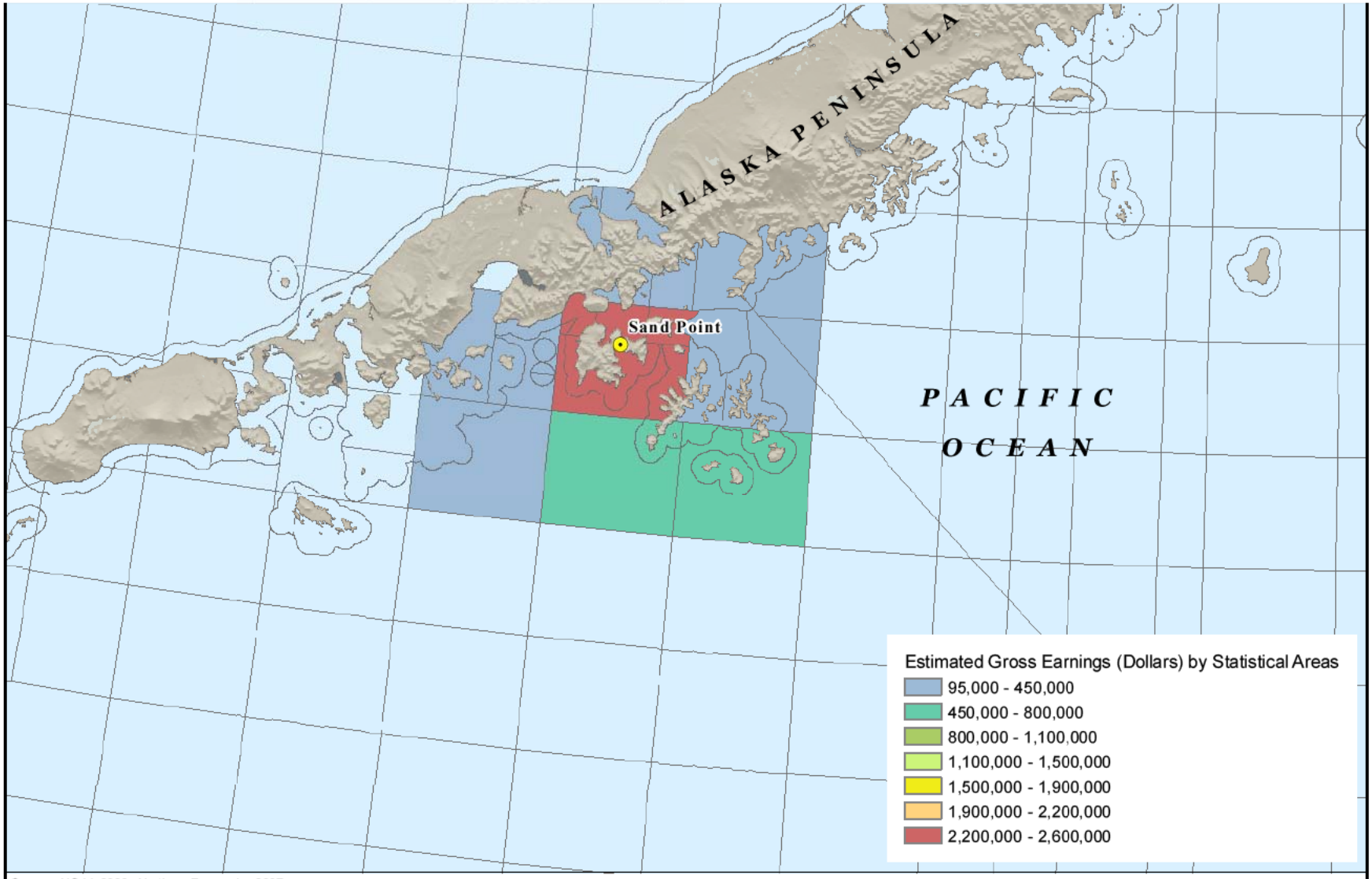

Source: NOAA 2003; Northern Economics 2007

50 25 0 50 Miles

Scale = 1:2,900,000 1 inch equals 50 miles

Figure SDPT-16
Commercial Halibut Catch for Vessels Local to Sand Point, All Gear Types, 2003 - 2005

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Community Harvester Characterization

The Sand Point local fleet is relatively large and diverse compared to the other communities profiled in this document. Within the Aleutian/Pribilof region, the Sand Point fleet most closely resembles the King Cove fleet. Plates SDPT-11, SDPT-12, SDPT-13, and SDPT-14 include images of the Sand Point harvest vessel fleet.

According to Sand Point leaders, there are essentially two main components of the Sand Point residential commercial fishing fleet. The first is composed of 58-foot vessels that fish heavily during the winter fisheries (typically focusing on the cod trawl fishery) as well as during the summer salmon fisheries. The second is composed primarily of vessels in the 32- to 48-foot range that are more oriented toward summer salmon fisheries, although quite a few of these vessels also jig for cod in the winter and/or participate in the halibut fishery. There are active local vessels that fall outside of these clusters, such as a few local vessels in the 48- to 58-foot range that fish the winter fisheries as well, and a substantial number of smaller vessels that focus on the local salmon openings.

Only four vessels in Sand Point considered by local fishermen to be locally owned are of a length greater than 58 feet. These include *Destination* (at approximately 107 feet) and *Keeta* (approximately 102 feet), both of which focus primarily on crab.[6] *Alaska Dawn* (approximately 90 feet) has fished crab, pollock, and cod in recent years, but reportedly is currently (2007) not fishing its own Bering Sea crab quota, concentrating instead on groundfish and tendering activities and leasing out its crab quota. The fourth local vessel over 58 feet, *Francis* (approximately 72 feet), has focused mainly on salmon in the past, but reportedly has not been active for several years.

Winter fisheries of particular importance to the local fleet include pollock and cod trawl fisheries, along with the pot and jig cod fisheries. Local vessels participating in summer fisheries primarily target salmon. Halibut is taken by the local fleet anywhere from March through November. Delivery patterns to local processing entities vary seasonally, with Trident getting the bulk of local deliveries in the winter, with salmon split more evenly between Trident and Peter Pan in the summer (however, there is ebb and flow, and locals suggest that perhaps Trident has picked up some market share in recent summers).

Different types of harvester operations utilize crews of different sizes and concentrate on different geographic areas. Local set net salmon operations utilize one to three crew members, and smaller operations can consist of "a skiff and a tent on the beach." As a less gear-intensive fishery, it is locally estimated that one can get a set net operation up and running for between $20,000 and $25,000, plus permits. A larger vessel may serve as a tender, but actual fishing is labor intensive and takes place from a skiff, with every fish touched twice as they are picked from the net as it is pulled into the skiff and then again when they are subsequently transferred. In contrast, local seine vessels typically utilize about five crew members (and reportedly used up

[6] Ascertaining, or even defining, location of ownership is often complex, and vessels may have multiple individuals or entities with ownership interest and/or the vessel may be listed as owned by a corporation with a different address than the corporation's major owners. Both of these vessels are listed in at least some datasets having Pacific Northwest ownership.

to six or seven crew members "when the money was good"). Seine operations are more capital intensive, with local estimates suggesting that it requires about $2 million to $2.5 million, plus permits, to fund an operation. Seine vessels utilize hydraulics and, in contrast to the set netters, the crew never touch the fish, either during the catch operation or when they are vacuumed off the vessel at the processing dock. The seine itself is worked by a main vessel and skiff working in concert. (Drift net fishing utilizes a buoyed net deployed in a "J" pattern, with drifts ranging from 10 to 15 minutes to 3 to 4 hours; like seine operations, drift netting relies on mechanical and hydraulic power, as opposed to set netting, which is exclusively man-powered.)

Typically, Sand Point purse seiners and set netters primarily work the local area around Sand Point, while drift netters most frequently work to the west. There are areas of overlap between the efforts of different community fleets as, for example, some of the smaller Sand Point vessels fish near the communities of False Pass and Port Moller. Drift netters typically launch the first or second week of June and finish the season at the end of September or early October. During June they tend to fish the False Pass/Pankoff area before fishing the Port Moller area during July, August, and September where Sand Point vessels make up the majority of the area fleet. Tenders resupply the vessels, and crews may go for extended periods of time without going ashore.

According to borough and local officials, historically the Sand Point fleet has been characterized by flexibility and the ability to adapt to fishery conditions that may fluctuate on a shorter- or longer-term basis. According to the borough mayor, the communities of the region themselves, including Sand Point, were built on the ability to transfer fishing effort laterally between fisheries and between communities. Unfortunately, from the local perspective, trends of fishery management in recent years have tended to make movement between fisheries and communities inherently more difficult than in the past, particularly for fishermen with limited access to investment capital. Cited as examples of this trend have been relatively expensive salmon limited entry permits (with permit costs remaining high even during times of poor fish prices), the difficulty of obtaining halibut Individual Fishing Quota (IFQ) (or re-obtaining IFQ that previously left the community), and the rationalization of the BSAI crab fishery, which has resulted in both fishing and processing quota share systems that may serve as impediments to local entry or continued access to the fishery. Combined with a constellation of other factors, including a state codfish pot fishery that is relatively expensive to pursue and a jig fishery that is reportedly relatively difficult to make money in, conditions in recent years have not been conducive to growing (or even maintaining the size of) the local fleet. In Sand Point in particular, apparently proportionately less of the fleet is fishing year-round than used to be the case as participation in the winter fisheries has declined.

According to local residents, the size of the local fleet actually grew for some period immediately after the implementation of the salmon limited entry system as it was not uncommon for Sand Point fishermen to qualify for three permits (set, drift, and seine). Reportedly, it was not unusual in the early years of the program for individuals to sell one or two of these permits to diversify, resulting in one or two other individuals/vessels entering the fishery. Over time, however, the number of vessels began to decline as economic conditions changed for the worse (such adverse changes in the international monetary climate and a decline in local prices paid for salmon occurring with a rise in availability of farmed salmon on the world market), and the salmon fishery became less financially rewarding. In contrast to what

SAND POINT

PLATE
SDPT-11
HARVEST SECTOR

Top Left: Harbor entrance sign

Top Right: Overview of harbor

Bottom Left: Four vessels ranging in size

Bottom Right: A fishing vessel being launched

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PLATE
SDPT-12
HARVEST SECTOR

All: Vessels in the Sand Point harbor ranging in size and type

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PLATE
SDPT-13
HARVEST SECTOR

Top Left and Right: Details of smaller vessels in the Sand Point commercial fleet

Bottom Left and Right: Overview of smaller vessels in the Sand Point commercial fleet

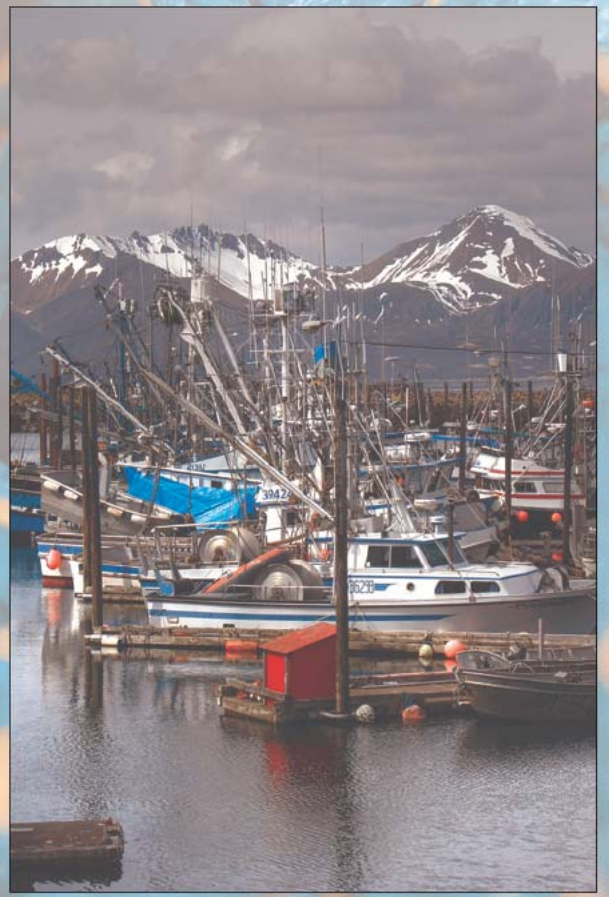

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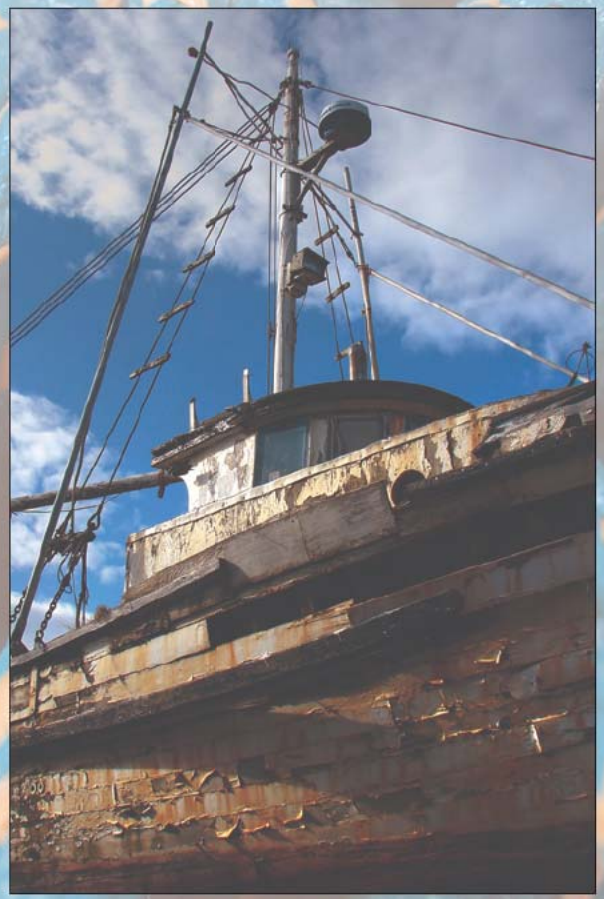
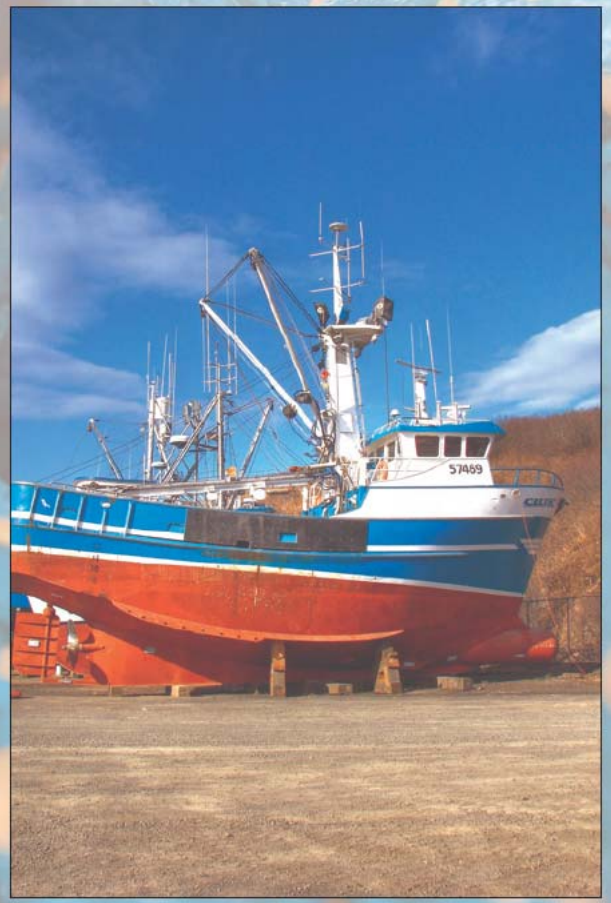
PLATE
SDPT-14
HARVEST SECTOR

Top: Range of differently sized vessels in storage onshore

Bottom Left: An older boat is affected by age and weather

Bottom Right: A vessel undergoes repairs onshore





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was seen with the implementation of the salmon limited entry program, relatively few Sand Point fishermen initially qualified for halibut IFQ or crab quota when those fisheries rationalized compared with long-term participation in those fisheries over time.

In 2005, a tanner crab season was opened in the area for the first time in many years, and approximately 65 vessels took part from Sand Point and King Cove. According to Sand Point fishermen, a number of individuals were pursuing this fishery not because it was economically viable to do so at present, but in anticipation of the fishery going to limited entry status at some point, and it was felt that it was important to "fish for history" to avoid exclusion at a later date when economic conditions were more favorable. This fishery was open in 2006 as well, but did not open in 2007.

In terms of the specific impact of the relatively recently implemented (2005) BSAI crab rationalization program on the local fleet, according to local fishermen, several crew jobs were lost in the community. According to interviews with knowledgeable local fishermen, one local crab vessel with an all-local crew and another vessel that was not locally owned but spent a considerable amount of time in the community and hired at least some local crew members left the fishery as a result of consolidation following rationalization. Of the vessels considered by local residents to be locally owned that fished in the BSAI crab fisheries immediately prior to rationalization, *Keeta* and *Destination* are still (as of 2007) actively fishing crab. Two other boats with Bering Sea crab quota and ties to Sand Point, *Alaska Dawn* and *Lady Joanne*, have recently fished their quota off other vessels and not directly participated in that fishery, but they remain locally based and active in other fisheries. A fifth locally based vessel that qualified for Bering Sea crab quota, *Silent Lady*, is reportedly no longer operating out of Sand Point. A few local fishermen also seasonally crewed on other Bering Sea crab vessels, such that estimates by a number of local fishermen and local government personnel suggest that perhaps six to eight seasonal crab crew positions were lost that were normally filled by Sand Point residents, but the actual number of residents directly affected as former crew members may be closer to a dozen, as different individuals would occupy these positions from year to year (even if only a half-dozen or so residents were filling crab crew positions at any one time). Some of these individuals are now cod fishing in the winter out of Sand Point, but there has been a decline in earning potential compared to level of effort associated with the switch from crab to cod fisheries. Two or three other crab vessels from elsewhere that sometimes moored in the community (but that did not hire local crew) are also now absent from Sand Point as well. Since the implementation of rationalization, no BSAI crab has been landed by local or outside vessels and processed in Sand Point, although quantitative data are unavailable and it is possible that an increase in landings elsewhere in the AEB may have made up for any fiscal impacts associated with a local decline in landings in Sand Point. Taken together, these changes have resulted in a decline in seasonal crew positions (that were relatively modest in number but comparatively well compensated), a modest decline in moorage fee revenues to the city, and the loss of some level of direct support business activity (and associated indirect and induced economic benefits to the local economy), but the overall assessment by both local community and borough leadership is that Sand Point was relatively little affected by BSAI crab rationalization compared to its neighbor King Cove.

Partially in response to less than optimal local conditions and positive opportunities that have presented themselves elsewhere, some Sand Point vessels have chosen of late to fish relatively far afield. For example, according to local fishermen, a total of five Sand Point-owned 58-foot vessels (*Advancer*, *Camron*, *Karen Evich*, *Ocean Storm*, and *Marauder*) have participated in the Adak area cod trawl fishery in recent years.

According to community leaders, patterns of resident participation in the harvest sector have also been changing in recent years and vary by fleet subsector. In general, it is reportedly easier for Sand Point owners of large vessels to find crew than it is for the owners of smaller vessels, with a result that average age (and overall level of experience) has been declining for some of the local small vessels, which has resulted in the expression of some safety concerns. With vessel size differences corresponding to seasonal fishery participation, vessels fishing in the winter tend to have older crews and smaller summer-only vessels tend to have younger crews, a trend reinforced by the lack of conflict between school attendance and fishing during the summer months.

Overall, fewer young people in Sand Point are characterized as going into fishing, and more vessels are tying up in the winter with crew members seeking onshore jobs. The bulk of the local fleet is composed of seine vessels and one of the local concerns is that the average age of the owner/skippers is increasing, such that it is expected that within the next few years a significant number of individuals will be retiring or otherwise selling out of one or more of the local fisheries. This is not only a concern for continuing employment of crew members and secondary economic benefits generated by these operations in the private sector of the local economy but for the public sector finances as well. One local leader characterized the relative contribution of this portion of the fleet by stating "the city survives off those tax dollars." While no quantitative data are readily available to cross-check these trends, it is the perception locally that skippers are aging at the same time more young people are working ashore. According to one long-time local fisherman, young people working the summer fisheries from June through August can sometimes find out that after expenses and draws are deducted that "you can make more money flipping burgers" than you can fishing. In this context, skippers now often have to actively look for crew where the opposite used to be true in the not-too-distant past. Some individuals report that a substantial number of the summer crew positions that used to be filled by Sand Point residents in the 1970s, 1980s, and 1990s are now being filled by outsiders simply because they do not provide enough income to be worthwhile for local residents.

Relatively poor economic returns from local fishing are also seen as influencing the local housing market. According to city leadership, there are no new homes being built locally by private individuals, despite the fact that the local market is influenced by continuing needs (such as the need for residences for clinicians, teachers, and police officers who come to the community for specialized employment opportunities). The Aleutian Housing Authority has facilitated the construction of some new housing in the community, which undoubtedly served to somewhat lessen what would otherwise be a higher level of private sector demand. Additionally, there are seasonal residential vacancies as at least some former year-round residents are now seasonal residents of the communities due, at least in part, to lack of viable year-round fishing opportunities.

2.3.2 Processing

Community Processor Quantitative Description

With only one true processor in Sand Point, a quantitative description of processor activity can not be reported due to confidentiality restrictions.

Community Processing Characterization

The single active processing plant in Sand Point is owned and operated by Trident. In general, Trident management characterizes the Sand Point facility as a "white fish plant" in terms of its dependency on cod, pollock, and halibut, in sharp contrast to the high volume of salmon run in other communities, such as King Cove. While salmon is run in Sand Point (unlike the Trident plant in Kodiak, which is the only major plant in that community that does not run salmon), salmon production has dropped dramatically over time. According to local management, volume at the plant is currently approximately half that seen in the 1980s when the local salmon fishery was particularly prosperous. In addition to taking deliveries directly to the plant, in recent years Trident also has at times provided tendering services for pot cod fishermen who "camp out" on the grounds during the season as well as for state waters cod fishermen in the Chignik area. Given common ownership with the Akutan Trident plant, the Sand Point plant, prior to the AFA, obtained Bering Sea pollock in coordination with that plant. While the specifics have changed over the years, this operation remains unique among inshore operators for the degree of coordination across regions and for the way Bering Sea pollock processing is managed between regions.

A buying station for Peter Pan is also present in Sand Point, with the physical processing taking place in King Cove. The buying station typically purchases cod, pollock, halibut, and salmon, giving local fishermen in Sand Point a second market for their catch. Some custom processing takes place between Peter Pan and Trident, specifically of salmon.

Photos of the Peter Pan facility, Trident plant, and processing activities on the dock of the Trident plant can be seen in Plates SDPT-15, SDPT-16, and SDPT-17, respectively.

Current Operations

In terms of a typical annual cycle for the Trident plant, according to plant management the year kicks off with the federal cod opening on January 1. In reality, however, the plant has started to gear up for this opening in late December, as the plant needs to be prepared and workers brought in for the new seasons, building up from the small group of 20 to 30 core employees who handle winter cleanup and maintenance activities at the plant during the end of year period when no production is taking place. During some years, the winter cleanup and maintenance crew is also supplemented with construction crews for special projects. For example, over the winter of 2006-2007, approximately 40 additional project personnel were on-site, working on increasing cold storage capacity and adding cod and pollock line improvements.

During a typical year, the buildup to the January openings occurs over time, in part due to the constraints imposed by air transportation. Processing workers are recruited out of Seattle and from the workforces of other Alaska Trident plants that may have excess labor capacity at the time of need in Sand Point, with worker retention being about 40 percent from season to season, according to plant staff (with retention/recruiting proving a bigger challenge during the salmon season than at other times of the year). According to company management, whatever seats are available on regularly scheduled service (PenAir) are utilized, but the company also sometimes charters other aircraft to bring in 35 to 50 people a day if needed. The specifics of demand for processing capacity, and therefore processing workers, varies somewhat from year to year while other recent changes have accompanied changes in fisheries management. Since the implementation of BSAI crab rationalization, for example, BSAI bairdi and king crab are no longer processed at the plant, changing worker demand flows in both the earlier and later parts of the year. In general, however, around 300 workers have typically been needed at the Sand Point facility at least by the January 20 pollock A season opening, but recent changes in the mix of product form (specifically, a shift to an emphasis on pollock fillet blocks) raised this number to 390 for the 2007 season. Before the pollock A opening, the plant has the flexibility to optimize the use of different size workforces by adjusting product forms. For example, it can produce shatterpack, head and gut, and other products to supply different markets in the United States, Europe, and China if need be. With the "race for roe" that still occurs during pollock A season, however, peak workforce is necessary to keep up with the flow of fish through the plant. Bering Sea AFA pollock is also seen at the plant in late January/early February, with processing continuing as long as it makes sense in terms of balancing operations with Trident's Bering Sea facility in Akutan. Outside of this critical roe period, the plant does not see Bering Sea pollock. Cod and pollock processing remain at high levels through federal and state openings, before things being to slow down with longline season in March (although the opening can be earlier, which started in February in 2004). Employment at the plant is normally stepped down at the end of April, but timing depends on a variety of factors. Processing workers typically sign a 3-month employment commitment and rotate out at that point, but work may be extended depending on processing conditions. Typically by the May bottomfishing efforts, approximately 180 workers are needed at the Sand Point plant.

Another increase in activity is seen in May and June, which are particularly important months for halibut, before tapering off somewhat. Most of the halibut produced locally is filleted and frozen, with little if any going to the fresh market. Halibut has become a stronger market for the firm in recent years with Trident securing a substantial contract to supply Costco stores. Both halibut and black cod remain important "backdrop" fisheries through mid-November, however, as the fleet passes through the area pursuing a variety of openings. In 2007, the total workforce on-site during May, including special project workers, was 218, of which 132 were processing workers per se. The period from mid-June through the end of July represents a busy period for salmon processing, and in recent years this has required about 230 workers on-site. The workers brought in to ramp up to this level are typically a combination of new contract workers and transfers from Trident's Kodiak plant, although some workers may come from other Trident plants in an attempt to optimize labor sharing. In 2007, about 30 additional workers above the levels of previous years will be needed during the summer salmon season due to the addition of salmon fillet operations oriented toward vacuum-sealed product. Early June 2007 ramping up will occur as 17 additional workers per day will be brought in beginning on June 1 until the

SAND POINT

PLATE
SDPT-15
PROCESSING SECTOR

Top Left and Bottom: Peter Pan buying station offices

Top Right: Peter Pan storage facilities

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PLATE
SDPT-16
PROCESSING SECTOR

Top: Trident processing plant overview

Bottom Left: *Angelique* unloads its haul

Bottom Right: A net of fish is moved by a Trident crane

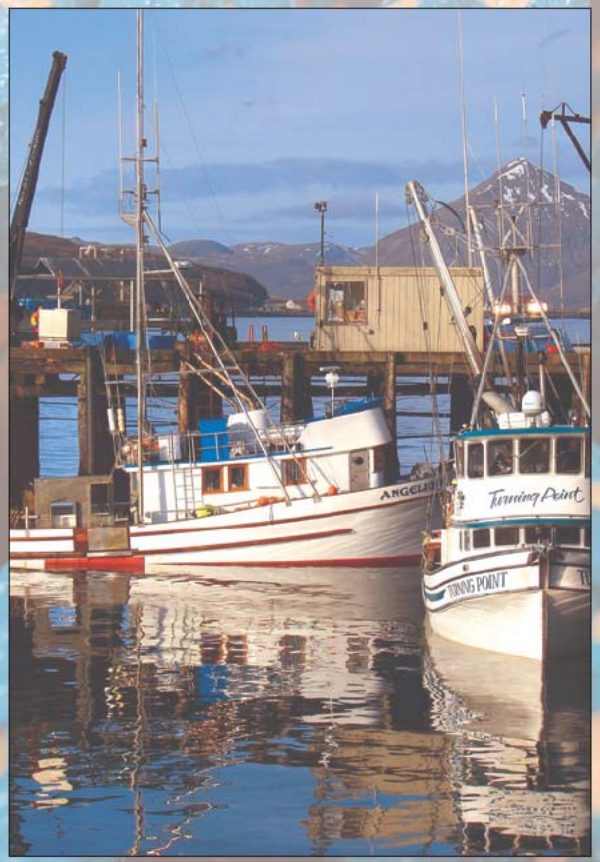

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PLATE
SDPT-17
PROCESSING SECTOR

Top: A fisherman loads his catch into a net for transfer

Bottom Left: A Trident worker sorts and counts fish

Bottom Right: A Trident worker disposes of excess ice

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needed total is reached. Dungeness crab is also run at the plant around the end of June or early July, and a number of bycatch species are run in some numbers, including black rockfish, idiot, skates, and octopus. Salmon processing continues through the various species runs into September, but after the pollock C season at the end of August the workforce again steps down to about 180 individuals on-site. The September 1 cod B season opening provides more flow through the plant, and by early October, salmon is completed and the last of the pollock has been run, and the local workforce steps down to around 30 individuals to handle various remaining committed cod deliveries through November 30, as supplemented by opportunistic purchases to keep the plant running efficiently. By the end of November, there is no more production being done at the Sand Point Trident plant, with effort shifting to cleanup and maintenance activities.

Given seasonal labor force fluctuations, Trident varies the number and duration of daily shifts. During slow periods of the year, a single shift may be run with the duration of that shift being variable, depending on the availability of fish. During the busiest time of the year, three overlapping 16-hour shifts are run per day, meaning that at any given time at least the equivalent of two full shifts are running simultaneously.

In terms of physical relationship to the community, the vast majority of Trident workers live in group quarters housing on-site. At present, Trident housing can accommodate between 410 and 420 workers during production peaks, as in addition to the production line people working on-site during peak periods there is always a need to accommodate additional individuals, such as buyers, observers, technicians, and others. During off-peak times, effective capacity is reduced as senior people are not asked to share rooms, some rooms feature double rather than triple occupancy, and the like. In addition to the workers housed in the processing plant complex itself, there are between 20 and 30 salaried employees and their family members living in residences elsewhere in the community, according to plant management. Trident owns two multi-unit housing structures (a fourplex and a sixplex) in the community outside the main footprint of the plant, along with three single-family houses (occupied by the plant superintendent, the fuel dock manager, and the meal plant manager) that were former government housing, including Navy and Federal Aviation Administration (FAA) units.

In addition to its facilities in the downtown area, Trident also owns land on the west side of the downtown area as well as a sizeable piece of developable waterfront property in the community near the airport. According to Trident management, the land near the airport was the site of a cannery that burned prior to World War II and was owned by the New England Fisheries Company before being acquired by several local fishermen and subsequently passing into Trident's hands in a transaction that was separate from its acquisition of the main plant in the community. Through a complex series of transactions, a part of this land was sold to Peter Pan, which had previously leased in the area but had been displaced by an airport expansion project. A number of the old cannery outbuildings remain on the site and have been used by Trident for storage, but this use has become more limited over time as the buildings have continued to deteriorate. At present, the use of the land is primarily devoted to open space pot and other gear storage.

Trident provides a number of support services to the vessels that deliver to the plant. In addition to the typical logistical support, including handling mail, expediting parts, arranging for emergency repairs on the grounds, and the like, Trident engineers will also assist vessels with maintenance and

repairs if needed. When specialized services are required, Trident will arrange for those types of services as well. These services include, for example, having refrigeration or electronics technicians or Caterpillar mechanics come to the community. Trident will also make these specialized types of services available to local vessels that deliver elsewhere after first prioritizing the needs of its own fleet, and in other ways acts as a general source of support for local vessels. For example, while Carl's general store does stock hardware, the Trident store is another source of marine hardware in the community (along with the stock room at Peter Pan, as described in a separate section below). Trident also provides pot and other gear storage to delivering vessels. While Trident does not charge gear storage fees to vessels that deliver to the plant, there is a per pot round-trip charge for pot hauling services, with pot hauling fees varying (up to $5.00 per pot round trip) depending on the nature of the relationship of the vessel to the plant.

Trident also provides fuel services in the community. In addition to being the only supplier of marine fuel in Sand Point, it is also the only supplier of other fuel to the community, and its facilities are open to the public for vehicle fueling typically from noon to 5:00 p.m. daily, although fueling can be arranged to take place at other hours.

Trident provides its own power and water services to the plant and other structures on the main site, including housing. Some of its housing near the site is provided with one or the other of these services, but Trident-owned housing away from the site is provided with municipal water services and power by the Tanadgusix Corporation (the local ANCSA village corporation of St. Paul typically referred to as "TDX"), the private supplier of power to the rest of the community. Trident does purchase sewer and solid waste service from the municipality for all of its facilities.

In terms of functional economic or social integration with the community at large, the plant in Sand Point is quite different from those in other communities such as Unalaska/Dutch Harbor or Akutan. As noted, compared to Sand Point, the development of commercial seafood processing in Unalaska/Dutch Harbor and Akutan is a more recent development (at least in terms of continuity of operations at specific facilities). The Sand Point processor has long-standing relationships with the local catcher fleet which, in turn, is a main source of employment in the community (among permanent residents). This is a sharp contrast to some other major regional port communities, specifically Unalaska and Akutan. Unalaska's local fleet, while being important for some local individuals and families, does not provide a substantial source of employment relative to other local opportunities, nor does Akutan's. In general terms, according to plant management, about 80 percent of the delivering salmon fleet is local as is the delivering pollock fleet. In contrast, the halibut and black cod fleets are characterized as being composed of 60 to 65 percent vessels from outside of the community.

Product is shipped from Trident's Sand Point plant by several different carriers. As characterized by local plant management, the facility is a "high volume plant with low volume cold storage capacity." This fact influences which of three primary carriers (Northland barge, Coastal freighter, or Trident-owned freighter) is used at any given point. According to local plant management, which shipping option is used sometimes depends on "how full is the freezer and who can get here first." In general, it is estimated that roughly 65 percent of Trident product leaves the community on Northland barge. Of the remaining amount, a larger percent ships via Coastal freighter rather

than Trident-owned freighter simply due to Coastal being more frequently available, though preference is given to Trident-owned vessels when logistically possible.

While Trident operates the only true processor in Sand Point, Peter Pan operates a buying station in Sand Point at a site near the airport. Typically, fish purchased by Peter Pan in Sand Point are then tendered to King Cove for processing at the Peter Pan plant in that community. With this arrangement, although there is only one processing plant in Sand Point, vessels do have a second market for their catch. Peter Pan buys cod, pollock, and salmon locally (but, like Trident, also takes other species that are caught as bycatch during these targeted fisheries). In addition to tendering fish to its own facility at King Cove, Peter Pan also arranges for some of its salmon to be custom processed at the Sand Point Trident plant. (Peter Pan also at times provides canning services for pink salmon from the Trident Sand Point plant at its King Cove plant.) Peter Pan also buys halibut from local Sand Point fishermen, but typically this is done through direct deliveries to the King Cove plant rather than purchases in Sand Point that are then tendered to King Cove. Depending on the market, a fuel allowance is sometimes offered to Sand Point boats for halibut deliveries to the Peter Pan King Cove plant. According to Peter Pan personnel, it is not unusual for local vessels to deliver halibut to a wider area than is the case for other, lower value species such that if the price differential is great enough, Sand Point boats may deliver fresh halibut all the way to Homer and combine the trip with vessel services in that larger community.

As a buying station, employment at the Peter Pan Sand Point facility is limited. During the winter, a total of three employees work at the station: the office manager, an office assistant, and a stockroom worker. During the summer there are four employees on-site with the addition of a dispatcher/tender coordinator. Plans are in place for a refrigeration specialist to join the local crew in the summer of 2007, with this individual becoming a year-round employee (which will raise the winter total to four employees and the summer total to five employees). Tendering is performed by vessels under contract to Peter Pan rather than by Peter Pan employees. In the summertime tendering is performed by a couple of crab vessels that do not participate in the summer fisheries, and in the winter by other vessels that do not participate in the winter fisheries. In previous years Peter Pan charged fishermen one cent per pound for tendering, but as of 2005 this practice was discontinued, with the price paid to fishermen in Sand Point being the same as paid for deliveries to the plant in King Cove. According to Peter Pan personnel, the halibut purchasing patterns are different than for other species due to shifts in the market brought about by changes in the fishery due to IFQ conditions as well as local market competition. In general, the size of quotas or runs, price structure, market demands, and the speed of the fishery all affect how much tendering takes place in Sand Point as opposed to direct delivery to the King Cove plant.

In addition to purchasing catch, Peter Pan supports its vessels through pot and gear storage, and it has a dock that is utilized for gear changes and limited resupply. Equipment made available free of charge to vessels includes a bobcat and a flatbed truck for pot hauling, as well as land and warehouse space for gear storage. Peter Pan does not supply personnel for hauling and storage work. Other vessel support includes financial and logistical services, such as arranging for insurance prior to fishing, expediting parts up to and including replacement engines, and coordinating other needed services, such as grocery orders. Typically, the vessels that utilize the Peter Pan dock also have slips in the City boat harbor, and that is where vessel work is performed along with most resupply. There is also a bunkhouse facility on-site that was built

when employment levels at the buying station were higher. The bunkhouse consists of a private residence that houses the office manager's family and an attached group quarters facility that consists of seven units with private bedrooms and baths, but with a common room, kitchen facilities, laundry facilities, and a storage area. According to the office manager, in the early 1990s there were eight workers on-site, including a carpenter who built skiffs, but with changes in the overall prosperity of the local fisheries, local employment has dropped and less money is being invested in vessels. Reasons cited for the overall decline in prosperity of local fisheries are many and not unique to the Peter Pan operations, and include a decline in the price of fish, changes in the market caused by farmed fish, a drop in the strength of local salmon runs, the 60/40 split of the cod fishery into "A" and "B" seasons that reportedly facilitates outside competition, and an overall drop in the locally seen volumes of bottomfish. At present (2007) housing remains in relatively short supply in the community and the excess bunkhouse capacity is utilized to house workers on various projects. For example, for the last 2 years (2006-2007), the units not needed by Peter Pan personnel have been utilized by Western Marine Construction workers engaged in a local harbor project. Peter Pan also has a marine hardware/specialty store on-site as described in a separate section below.

The fact that both Trident and Peter Pan operations in Sand Point are part of larger entities has an impact on local markets for fishermen. For example, if the Peter Pan plant in Valdez is able to purchase a large amount of pink salmon during a given season, they will not buy in large quantities in Sand Point. Similarly, the conditions at other Trident plants influence operations at the Sand Point plant.

In addition to the Trident and Peter Pan operations, there is a third market entity in town, Aleutia, that buys fish from fishermen on a regular basis. Initially operating through a 3-year state grant administered by the Alaska Fisheries Development Foundation and supplemented with AEB funding, Aleutia was formed in 2003. Aleutia does not have its own processing plant; rather, it represents a local branding initiative that relies on premium quality product for its ultimate success. Following the expiration of the original grant, the AEB has continued to assist Aleutia with financing, with the borough essentially owning the brand, and recently the Aleutian Pribilof Islands Community Development Association (APICDA) CDQ group has become a partner as well. Aleutia was founded on the idea of producing consistently premium quality product with a consistent approach of live bled fish immediately iced with quality control provided by third-party inspection. Aleutia is a non-profit entity owned by its 40 members, employing a single staff member, supplemented by one or two others employed as third-party inspectors in the summer salmon season. Ten local members have been trained and certified as seafood inspectors through the industry Hazard Analysis Critical Control Point (HACCP) course, which trains participants in quality control measures related to seafood harvesting, processing, transporting, distributing, and retailing. According to Aleutia staff, every fish is inspected, with the first line of control exercised by the fishermen, the second line by pre-processing inspection by Aleutia personnel, and the third line provided by the processors post-production quality inspection.

Aleutia began operations in Sand Point by purchasing early season sockeye salmon that were sold to high-end restaurant markets. Subsequently, late run sockeye and silvers were added as they represent a unique opportunity for the premium trade, given that no other area of Alaska has runs that last into October or even November. King salmon are also utilized by Aleutia, but not

in large volumes. About 80 percent of local purchases are from set netters, with the balance purchased from seiners.

Although still described as being in its "infancy stage" by staff, the Aleutia operation has continued grow in recent years, shipping about 80,000 pounds to market in 2005 and 180,000 pounds in 2006, with plans to ship around 250,000 pounds in 2007 if business conditions permit, according to Aleutia staff. At present (2007), Aleutia fish are custom processed at the Sand Point Trident plant and at the King Cove Peter Pan plant, with wholesaling and some secondary processing (filleting) occurring in Anchorage and Seattle. Aleutia, working with the AEB and a state grant, put in the first salmon fillet line in the Trident Sand Point plant (and with the success of that line, Trident is in the process of putting in their own). Current products include fresh and frozen "head and gut" (H&G) and frozen fillet product from the Sand Point Trident plant and frozen H&G product from the King Cove Peter Pan plant. About 75 percent of Aleutia fish is run in Sand Point and about 25 percent in King Cove, but plans are in the works to begin processing in False Pass in an APICDA plant. While currently focused on salmon, there is potential interest in expanding the Aleutia brand to halibut and cod in the future. As the designated Community Quota Entity for halibut and black cod IFQ in Sand Point and King Cove, Aleutia is able to directly obtain quota in these fisheries but had not yet done so as of 2007. Aleutia, with its local community and APICDA ties, is also designated as the "right of first refusal" entity for BSAI crab quota for a number of communities, including King Cove, Port Moller, False Pass, and Nelson Lagoon (but not Sand Point itself).

Finally, there are at least one or two individuals who have shipped fresh red and silver fall salmon from the community to a couple of small processing companies in the Anchorage area and another individual who has been involved in supplying product for the smoked fish market in recent years. These are very small-scale operations involving niche markets, but reportedly purchases by one of these individuals did have an upward effect on the price per pound paid by the major processing operations to fishermen in the community for salmon during at least one recent season. This same individual also purchases some cod and rockfish on a small scale as well.

2.3.3 Support Services

The fishing-related support services sector of the Sand Point economy has relatively few independent providers and relatively well-developed support services. Community residents report that there used to be more independent providers in years past when fisheries were more active during longer periods of the year. In Sand Point, the primary shoreplant has historically provided a variety of fleet support services. Photos of some of the support services and community facilities in Sand Point may be seen in Plates SDPT-18, SDPT-19, SDPT-20, SDPT-21, SDPT-22, and SDPT-23.

Shipping

Product is shipped from the Trident plant by a number of carriers as previously described. Northland barge has largely replaced Samson tug and barge service in recent years, although Samson still does service the community on occasion. Coastal Transportation serves the community as a general freight carrier on a regular basis and is also used to ship seafood

products from the community. Vessels carrying freight into the community often must make three stops—the city dock, the Trident dock, and the Peter Pan dock.

The only fresh products Trident typically ships by air out of Sand Point are cod milt and salmon roe, although in 2006 approximately 180,000 pounds of red salmon were shipped by air from the community. Past constraints to shipping fresh from the community included dependability and volume of air service, as the local runway was adequate for landing jets, but take-off weight restrictions placed practical constraints on large shipments. Recent runway improvements, however, have improved this situation compared to previous years. Air passenger service acts as another type of bottleneck for the community, as it is reportedly difficult to get a seat into the community near the start of fishing seasons or out of the community toward the end of fishing seasons. The community is served by PenAir, which operates relatively small aircraft in comparison to the Reeve Aleutian Airways aircraft that served the community in the more distant past.

Vessel Support Businesses

There are a few vessel-related support service businesses located at Sand Point's harbor. These include welding, mechanical, and shipwright services.

While there are several individuals who do at least some welding in the community, there is only one individual who does so on a consistent basis, doing business as Fleet Welding and operating 5 to 6 days a week out of a welding truck and a shop at the harbor. In 2007, this business marked its twelfth year in the community, having begun after the owner originally came to Sand Point for cannery work. After working at the plant for about 9 months, he went out on his own after being encouraged to do so by local vessel owners who have been the base of his business ever since. The owner attributes about "99 percent" of his business to the commercial fishing industry. Although he is also occasionally utilized for jobs by others, such as the school, the airport, Trident, and the U.S. Coast Guard, he has characterized this revenue as being well under a thousand dollars per year. According to the owner, the first 6 years of the business were strong, but in the next 4 years revenues declined each year before rebounding somewhat in the last 2 years. This overall decline is attributed to fishery conditions, with vessel owners less willing to put money into their vessels and more willing to delay any work that can be construed as optional. The vast majority of work derives from the local fleet, with very little work attributed to outside vessels delivering to Trident. This is characterized as happening perhaps once per year under emergency circumstances, as Trident otherwise provides support services to its fleet. While this business does not face competition from any independent provider, there is always concern that Trident, already providing support services, could be in a position to adversely impact the market for welding services. Like fishing itself, the welding support business has marked seasonal fluctuations. January is typically a busy month, while February through March is typically a slow period. April, May, and June are normally busy months, as vessel owners "try and get a whole year's work done at once." This occurs not only because of preparation for salmon season, but also because the weather has improved so more work can be done. During the period 2004-2006, a temporary assistant welder was brought to the community during the month of May to help keep up with the peak workload, but this seasonal hire was not needed for 2007. The balance of the year settles down in terms of demand, as when fishing starts

SAND POINT

PLATE
SDPT-18
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: City offices

Top Right: Police station and squad cars

Bottom Left: Shumagin Corporation offices

Bottom Right: Aleutian East Borough offices

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PLATE
SDPT-19
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top: School

Bottom Left: Gymnasium at school

Bottom Right: Community pool at school

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PLATE
SDPT-20
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Mechanic workshop at harbor

Top Right: Welding equipment at harbor

Bottom Left: Interior of Peter Pan hardware and electronic store

Bottom Right: Exterior of Peter Pan hardware and electronic store

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PLATE
SDPT-21
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Shipwright and interior of workshop

Top Right: Exterior of shipwright workshop

Bottom Left: Proprietor of Carl's store with inventory

Bottom Right: Exterior of Carl's store

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PLATE
SDPT-22
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Hardware section inside AC Value Center

Top Right: Anchor Inn Motel

Bottom Left: Fuel station at Trident dock

Bottom Right: PenAir offices

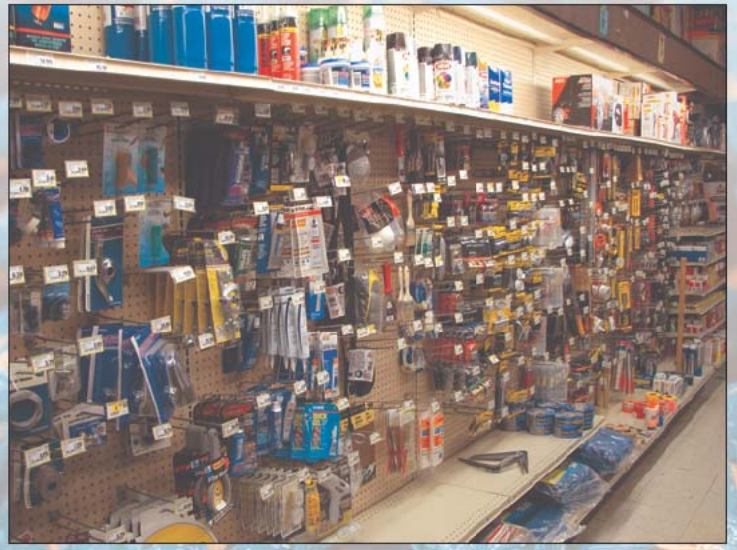

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PLATE
SDPT-23
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top: Clinic

Bottom: Harbor Café

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in earnest, demand for services drop. As summer fishing becomes routine, welding demands are typically limited to emergencies and breakdowns. The last few months of the year business drops off and has done so sharply in recent years. In 2004, the shop was closed for November and most of December, with no revenue reported at all for the final quarter of the year. Since that year, the shop has closed regularly for the final quarter of the year. In 2007, the business owner estimated that he worked about 22 hours per week when averaged over the previous year, including the busy and slow periods.

There is one individual doing business as Larry's Marine who does marine mechanical work as an ongoing business in Sand Point. Operating out of a converted school bus adjacent to the welding shop at the harbor, this individual also provides "jack of all trades" services to vessels. Originally located in the building that now houses the Harbor Café, the converted "Tundra Treats" bus serves as a small shop, but this individual also accesses space in the adjacent Fleet Welding shop for larger jobs. Like the individual who started the welding business, the mechanic originally came to the community to work for the processor and left to start his own business, in this case about a year later. While he also derives some business from non-marine work, the owner attributes over 90 percent of his work to the fishing industry, with seasonal fluctuations in activity tied to the fishing seasons. Winters are typically slow periods, but this period is also used to catch up on working on outboard engines and well as winches that have been stockpiled during the summer fishing seasons. Reportedly, virtually all boats carry spares, and repair work is performed after the seasons are closed. The busy season typically extends from mid-April through September 1. This business owner characterizes winter as being a time of trying to make a living and summer as a time of trying to keep up with the work. Within the pattern of annual fluctuation, overall mechanical work has reportedly been quite steady over the years for the local fleet, and some business is also derived from outside vessels seeking certified mechanic services. Most business derives from the salmon fleet, although year-round business does come from the versatile year-round multi-fishery 58-foot fleet. In addition to mechanical work, this individual also does electrical, hydraulic, and other work on vessels including "everything but refrigeration" services. (Reportedly the lack of local refrigeration services has been the source of substantial inconvenience and downtime for vessels over the years while waiting for refrigeration technicians; the planned addition of a refrigeration specialist at Peter Pan may change this dynamic.) In addition to vessel work for the local fleet, the owner of this business reports deriving business from the Peter Pan fleet on a regular basis and occasionally providing services to Trident vessels if they are experiencing an overload there and cannot keep up by utilizing their in-house engineers, as well as to the City of Sand Point, but these latter two are not steady sources of income.

Another local fleet support service provider located at the harbor is a shipwright operating out of a shop adjacent to the harbormaster's office. Known as Bravos Boats, this is primarily a one-man operation, but a brother and a cousin of the main proprietor are both trained as shipwrights and live locally so they can be called on as peak demand or a specific larger job requires. The main proprietor is a second generation shipwright and worked for his father locally in Sand Point beginning in 1982 before taking over the business upon his father's retirement in 1987. While the shop is equipped with resources to undertake aluminum welding, the owner states that normally the business does everything related to vessels "but mechanical and welding." He does fill in for the local marine welder when that individual is out of town. The

core of the business is wood and fiberglass fabrication and gel coating, with woodwork preferred when available. The owner reports that in past years during heavy fishing times and a strong local economy up to eight individuals worked for the business, but in 2006 only two other employees were hired as helpers for significant periods of time. At present (2007) extra help is typically only hired for a day or two at a time to help with shop cleanup or a particularly challenging job. Winter months are typically slow and the owner will do residential construction, window installation, or the like as, in his words, you need to be a "jack of all trades" to earn a living. The owner does report, however, that his first commitment is to his shipwright business customers and he will put other work on hold to service his primary clients. Summer months associated with the salmon openers are the busiest times, although with the generally poor prices that local fishermen have been receiving a number of customers are finding it difficult to pay for shipwright work. In this case, the owner will ask for the money for the materials up front but accept delayed payment for the balance of the job. While most work is associated with the local salmon fleet, other work comes from the local multi-species winter fleet as well as occasionally from outside vessels in port in Sand Point.

Other vessel support service providers come to Sand Point regularly on a seasonal basis. Up until 2005, one individual from Washington state who does fiberglass work typically came to the community from April through October, but did not do so in 2006 and is not planning on doing so in 2007. This individual was formerly associated with a particular fleet of salmon vessels but has gone out on his own and when in Sand Point works out of a van while staying at the Anchor Inn motel. The current fleet mechanic/welder works for this same family-owned fleet of half a dozen or so drift permit salmon vessels that tend to be around Sand Point in the spring and then fish around the Port Moller area before returning to the Sand Point area in the fall. He also provides services in Sand Point to other vessels on an as-needed basis during salmon seasons. Another individual from Bellingham, Washington, who is an electronics technician for Radar Marine reportedly comes to Sand Point for a week or 10 days at a time approximately every 3 to 4 months, but especially before the January pollock and summer salmon openers. This individual stays at the Anchor Inn motel and works "out of a backpack and from a four-wheeler" while in town. One former full-time resident of the community who owns one of the local restaurants still rebuilds engines on occasion but does not do so on a regular basis.

Additionally, as is common in rural Alaska fishing communities, individual Sand Point vessel owners will also pool resources to bring specialty service providers for the community. For example, when several individuals need service by NC Machinery, they will arrange for a service provider to come to the community on a single trip and will split the expenses involved in the technician making the trip to make the service economic for each of the vessel owners. Refrigeration systems maintenance and repair are not available in the community on a regular basis, but according to local vessel owners most of the local fleet has been switching over to systems provided by Integrated Marine, which are fabricated in Seattle and custom installed by a technician who comes up from Seattle when the system is completed. Typically, this individual will stay aboard the vessel that is being worked on, or at the vessel owner's house, if not at the Anchor Inn motel. Yet other basic vessel support services are not available in the community. Life raft servicing, for example, normally takes place in either Unalaska/Dutch Harbor or Seattle. In terms of net repair, local crews typically repair their own nets when possible, but for major repairs nets are sent to either Unalaska/Dutch Harbor or Seattle as well.

General and Hardware/Marine Supply Stores

Alaska Commercial (AC) Value Center is currently (2007) the largest grocery store in Sand Point, carrying a wide range of grocery and other items including fresh fruits and vegetables, meat, frozen foods, cereal, bread, snacks, drinks, small electronics, clothing, furniture, and other small goods. Aleutian Commercial, a store most recently run by Western Pioneer/Alaska Ship Supply, was previously operating in the same space until 2005 when AC picked up the lease. Upon ownership transition, AC made significant changes to the inventory, which was reportedly met with mixed reaction in the community and which some other entrepreneurs viewed as creating demand for new market niches as detailed in subsequent discussions. Perhaps the most notable change with store transition was the discontinuation of construction/home hardware as a major business line, although more subtle changes in the brands of goods carried in other departments occurred as well. In 2007, there were reportedly five to six full-time employees working at the AC Value Center, supplemented by another three part-time employees brought in during the busy summer months when local fishing activity is at a peak and the community population increases with the return of seasonal residents. In general, business is characterized as brisk in the summer months, starting in June and lasting through September. The autumn is reportedly slow, with business picking back up in after the first of the year with local activity in the cod and pollock fisheries. Summer business directly related to the fleet was estimated by a senior employee to be around 60 to 70 percent of the total business during that time period, with crews both local and outside the community purchasing supplies.[7] Those boats and crews from outside of the community generally shop disproportionately more at AC Value Center than local vessels and crews do reportedly because local crews have the luxury of more easily ordering supplies from outside the community at lower prices for local delivery before the season begins. While it is not clear with the various transitions in ownership what the ultimate relationship of the AC Value Center will have in terms of fishing-related activity compared to other sales activity, indications are that the AC Value Center is less overtly oriented toward facilitating sales to commercial fishing vessels than were the previous store owners. The store does have local seafood processing personnel among their clients and stocks a number of specialty items to meet the needs of this clientele, as many of the items carried by the store are not present in the closer but much smaller Trident company store.

The newest general store in Sand Point, opened in January 2007, is Carl's Trading LLC, widely known simply as "Carl's." The owner of Carl's previously started a number of other stores in the region over many years, including general stores in Sanak (opened in 1949), King Cove (1960), and Unalaska/Dutch Harbor (1961). Until recently the owner of Carl's still held ownership of Carl's Commercial, which included a general store, a hotel, and a liquor store, in Unalaska/Dutch Harbor. These holdings were then sold, with the owner relocating to Sand Point and opening Carl's on property purchased from the Shumagin Corporation, which several years previously had operated a general store and auto repair facility on the same land. The store is operated by two full-time employees and one part-time employee, with plans to add another full-time employee if business increases. Carl's business is focused on a somewhat different niche than other stores in the community, focusing primarily on hardware and other home

[7] Some individual vessel supply orders can be quite large. For example, at the time of field data collection (May 2007), a single vessel order totaling $5,000 occurred the preceding day.

improvement goods along with furniture, although some snack food is also carried. This niche was reportedly created when what is now the AC Value Center transitioned from Aleutian Commercial and changed their inventory, including dropping hardware as a major set of stocked items. While the stores operated by Trident and Peter Pan stock large quantities of marine-related hardware, Carl's primarily stocks hardware for general construction use, although the store is beginning to carry stainless-steel screws and bolts, which are needed for use on fiberglass boats but are not carried by Trident or Peter Pan in large quantities. While the store has been in operation only a few months at the time of fieldwork for this project (May 2008), meaning the annual cycle is not yet known from experience, it is anticipated that eventually the store will come to have a significant reliance on commercial fishing-related purchases. During the early months of store operation, furniture has reportedly been selling particularly well.

Toys Plus represents a third store in the community. As the name implies, this store carries a wide variety of children's toys, along with a number of other different types of merchandise. These include kitchen items, bath items, clothing, gifts, party supplies, movie rentals, and an assortment of sundries. Toys Plus started in the owner's basement in 1992 but quickly expanded into a space of its own in 1993. The store is run by the owner and her husband, with one full-time assistant. Part-time student help is also common, with the student employed earning credit for school in addition to learning small-business skills. The business is open throughout the year, with peaks in activity occurring around major holidays and throughout the year as people celebrate birthdays, anniversaries, and other events. Local community members, fishing crews based outside of the community, and those people working at the Trident processing plant are reported to shop at Toys Plus. Movie rentals and gifts are popular with residents and visiting fishermen alike, with microwavable cookware popular among Trident employees (who are allowed microwaves but not other cooking appliances in their rooms). Party supplies and toys have historically been popular, although the market for toys in Sand Point has recently become more competitive as AC Value Center has also started to carry many of the same toys. Toys Plus has added a line of shelf-stable groceries to its inventory, as well, in an attempt to provide people in the community with familiar foods and brands no longer carried at AC Value Center under the new ownership. An expansion is planned for Toys Plus largely to accommodate a more extensive grocery inventory, including refrigerated and fresh items. Business is reportedly related to the economic strength of the local fishery, with islandwide economic vitality reflected in more purchasing of non-essential items such as toys and party supplies.

Trident also runs a store in its processing plant facility. One-half of the store sells a variety of items, including convenience foods, clothing, rain gear, electronic goods, music CDs and DVDs, and other items. Movie rentals are also available. While the store does derive business from the public, this part of the store is mainly designed to meet the needs of Trident employees. The other half of the Trident store is the "stock room," which serves as the inventory for the Trident engineering department, but it also serves as a marine hardware store with retail sales to the public.

Peter Pan also has a marine hardware store/stockroom on its site, which is open for sales to the public. This facility also sells a limited amount of clothing and some consumer electronic goods. Additionally, the individual who runs the marine hardware store for Peter Pan also runs a separate small (one person) business, Wastec, which supplies and services marine and home electronics and has done so for approximately 25 years. This package of hardware and

electronics services has been available to the local fleet on or adjacent to this site since before the consolidation of the New England Fish Company into Peter Pan Seafoods in the 1970s.

Alaska Native Claims Settlement Act Corporations

The Shumagin Corporation, the Sand Point community Alaska Native Claims Settlement Act (ANCSA) corporation, has a number of business undertakings in the community, including some that support or directly benefit from commercial fishing-related activities. According to corporation staff, as of 2007 Shumagin has approximately 440 total shareholders, the majority of whom live in the lower 48 states. Also as of 2007, the corporation was directly operating two businesses in the community, the Anchor Inn motel and the Sand Point Tavern. In addition to these two businesses, the corporation derives income from a number of other sources, including two rock pits near the community that it owns but are operated by others under contract. The larger of these, the "Knoll" quarry has supplied materials for the ongoing harbor improvement project, among others, while the smaller "Red Cove" quarry has supplied projects toward the other end of town. The corporation also derives lease income from land that it owns on the Alaska Peninsula that is primarily used for guided bear hunts. Additional income derives from hunting activities, as the corporation encourages the guides to bring their customers through Sand Point and utilize local goods and services. The corporation has had a stable relationship with the same three guides since around 2000 and has recently gone from a 1- to a 3-year agreement renewal basis. Direct employment at the corporation includes 5 corporation office personnel, including 3 full-time positions (the president, office manager, and a maintenance person) and 2 part-time positions (accounts payable and shareholder affairs); 2 staff at the motel (a full-time manager and a part-time cleaning/room service person); and about 12 staff at the tavern (2 full-time positions, including the tavern manager, and around 10 part-time positions, with plans to add another full-time position in the near future).

According to staff, Shumagin Corporation revenues fluctuate directly with fluctuations in commercial fishing. Spikes in revenue are seen at the start and end of fishing seasons as crews fly in and out of the community, using the tavern and sometimes the motel, but the latter has become less frequent with recent changes in fishing itself. In recent years, pollock and cod winter crews have tended to stay on their vessels while in town, while salmon fishermen tend to be local residents and/or have attempted to economize wherever possible in the face of poor fish prices. Increases in tavern revenues are seen early in the year with openings and closings of cod and pollock, as processing crews tend to use the tavern in the day or two after they arrive in the community but before production begins and in the few days after production stops but before their flights out of the community. One recent pronounced change in the winter business pattern has occurred with BSAI crab rationalization. Prior to rationalization, a portion of the Bering Sea fleet would gear up and await the opener in Sand Point, bringing business to both the motel and the tavern (among other support businesses in town), but this activity has dropped since rationalization has been implemented due to fleet consolidation and the temporal changes in crab fishing effort. Summer salmon seasons have a somewhat different pattern as proportionately more of the fishing effort is expended by local vessels, so the spikes in corporation business activity are less pronounced, but overall activity is higher than normal. The summer busy season normally lasts from May through mid-August and reportedly has the greatest impact on the income of most residents due to the widespread direct participation in the

fishery, although it generates little motel business for the corporation, except at the beginning and end of the summer season.

Until recently, marked fishery-related spikes in business activity in the fall were associated with the Bering Sea crab fisheries, among others, but the crab-specific activity has dropped off at this time of the year as well due to crab rationalization conditions, making the post-salmon balance of the year generally slow for corporation businesses largely dependent on fisheries-related clientele. As the motel, with a total of 16 rooms, is of modest scale, however, business from a relatively few vessels can make a large difference in business performance over the short term at any time of the year. For example, a single longline vessel crew utilizing a half dozen rooms makes a large difference in total sales over the period they are in town. There is some demand for rooms at the hotel associated with the bear hunting seasons, typically with six or seven rooms taken for 5 to 8 nights each. The manner in which bear hunting seasons are rotated between spring and fall, however, can mean long periods of no hunting-related activity. Other than hunting, there is reported no other "tourism" type of business per se in the community. In a typical year, motel business is characterized as "totally dead" from mid-November to late December, when fishing-related activity again picks up in advance of January season openings, but then tapers off again until summer salmon seasons.

In terms of characterizing the proportion of business directly attributable to fishing-related activity, as recently as 2005 corporation management characterized perhaps 33 percent to 40 percent of revenue being attributable to outside fishing-related activities with about half of the remaining business attributable to "fishing dollars" in one form or another, but economic conditions have reportedly deteriorated in more recent years with depressed salmon prices and BSAI crab rationalization. Locally based processing workers still provide some revenue to the tavern, but these contributions are characterized as relatively small due to their brief episodic nature. The motel also has historically derived significant business from various construction project crews, but individual projects vary in their level of economic contribution. For example, the most recent phase of the harbor project was carried out with relatively few outside workers and a substantial amount of local hire, limiting additional demand for motel and tavern services (but increasing local individual income of local residents, which clearly contributed to the local economy in different ways).

Business undertakings by the Shumagin Corporation have changed in recent years with changes in the fisheries. In 1997, when the local fishing economy was robust, the corporation opened a second retail grocery store to provide some price competition for the long-time single general store in the community and also invested in a NAPA auto parts store. With the downturn of the local economy however, these businesses did not prove successful over the long run. The NAPA enterprise closed in 2000, and the store closed in 2004. (More recently, as detailed elsewhere, the corporation sold this property to an individual who has opened a different store on this site and leased part of the site to an individual who has started another automotive business.) The corporation also owned a second bar in the community, in the same complex as its hotel, but this business was closed in late 2003 as the market did not appear to warrant owning two bars in the community and its location was not optimal in terms of being adjacent to the motel. This space has been utilized as rental office space by two different tenants for a few months each but is not occupied at present (2007). The corporation has retained its second liquor license and kept it

current by offering alcoholic beverages on a room service basis at the motel, allowing the corporation the flexibility to convert the space to a restaurant, sports bar, or the like if future market conditions warrant such a move. Among the current businesses, the motel dates from the mid-1980s, while the tavern has been operated by the corporation since the mid-1970s.

The Shumagin Corporation does not currently derive revenue from commercial fishing-related uses of its land, although pot storage (primarily crab pots) has occurred and continues to occur on its lands. Currently (2007) the corporation is attempting to work with the city to grade some land in the vicinity of the city shop to allow for a consolidated area for pot storage to alleviate scattered casual/inefficient storage in multiple areas on corporation lands around the community. In terms of potential future fishery-related ventures, the corporation is looking at a couple of different communication undertakings. First, it is in the process of seeking to provide wireless internet service in the harbor area for the use of commercial vessel crews (and others), but technical challenges have meant the system is not operable at present. While this is a business venture, according to corporation leadership it will provide only modest revenue as it is more of a general service to foster fisheries business in general and not a real "money maker" in and of itself. Second, the corporation is considering becoming involved in improving cellular coverage in the area, including nearby fishing grounds, which would be of significant benefit to local vessel operators and crews as well as outside vessels.

In addition to the Shumagin Corporation, Sand Point is the base for two other Native Corporations: the Sanak Corporation and the Unga Corporation. Both of these corporations represent the interests of historic communities in the Sand Point region but outside of Sand Point itself. Neither of these historic communities has a contemporary population, with the descendents of these communities now living in Sand Point and elsewhere. The Sanak Corporation, according to corporation leadership, currently has 28 members, most of whom live in Sand Point either year-round or seasonally, although a number of elders live outside of Alaska. Sanak Corporation is not directly involved in business activities in Sand Point. The corporation runs approximately 800 head of cattle on an island it owns, along with a number of horses, and is currently (2007) involved in a fox eradication program on the same island. Unga Corporation, according to corporation leadership, has approximately 70 shareholders, somewhat less than half of whom live in Sand Point. The corporation is not active in business ventures in Sand Point and is pursuing an investment strategy with their funds rather than pursuing active business operations in general. According to corporation staff, however, most Unga shareholders in Sand Point are involved in commercial fishing as individuals or families in one way or another. The Unga Corporation sponsored a community picnic in 2006 which was popular enough that a second annual Unga picnic was scheduled to take place in the summer of 2007.

Tribal Organizations

In addition to the three locally based ANCSA village corporations, there are also three tribal entities based in Sand Point. The Qagan Tayagungin Tribe, commonly referred to as QTT, is the tribal entity associated with the community of Sand Point itself and the governmental parallel of the Shumagin Corporation. The Unga Tribe similarly parallels the Unga Corporation, while the Pauloff Harbor Tribe is the governmental analog to the Sanak Corporation.

With a total of 704 members as of 2007, QTT is active in a number of ventures in Sand Point, having purchased the airport terminal building and as owner of the community recreation center constructed in conjunction with the Unga Tribe. Portions of the airport terminal building are currently leased to PenAir and the National Oceanic and Atmospheric Administration (NOAA) on an annual basis and on a seasonal basis to the ADF&G. The recreation center is currently utilized by the Head Start program administered by the Aleutian Pribilof Islands Association (APIA) and the Boys and Girls Clubs of America. The Tribe also derives income from local "pull tab" sales run out of an office in the building the houses the AC Value Center, but according to tribal staff this operation, intended benefit a tribal scholarship fund, has not operated on a consistent basis in the recent past. QTT is also involved in cultural programs locally, the centerpiece of which is a cultural camp run in the summer for local youth, with 2007 being the eighth year of this undertaking. Each year, traditional craftsmanship or cultural skills are taught, which in past years have included kayak fabrication and bentwood hat production, along with traditional dance instruction. Additionally, QTT is in the process of becoming directly involved in local fishery support service provision through obtaining and installing an ice machine for fishermen at the end of the east wall area of the harbor. Trident is currently the only supplier of ice in the community (although Peter Pan tenders will also bring down ice from the King Cove plant), and reportedly the addition of more ice making capacity will not only open a second market choice for fishermen but will also meet current demand that cannot at times be met by Trident. As of 2007, this machine had been purchased but was not yet in service, as QTT was in the process of formulating an operational plan that may involve direct operation of the equipment or lease or sale to a third party. QTT is also interested in participating more directly in the halibut fishery as a designated tribal share holding entity for the benefit of tribal members and is also interested in supporting a tribal salmon fishery led by APIA.

The Unga Tribe, with about 138 members as of 2007, of whom about half or somewhat less live in Sand Point, is involved in a number of grant activities in the community. In addition to working with QTT on the community center project, the Unga Tribe was also was involved with both QTT (and other Eastern Aleutian Tribes) and the City of Sand Point in obtaining funding for the new clinic in the community. The Unga Tribe is also involved in grants that are providing for environmental remediation at the Unga village site. The Unga Tribe is also involved in Sand Point with the Pauloff Harbor Tribe in providing infrastructure for a local recycling program and providing a work plan and supplying labor for a local environmental drum consolidation project. The Unga Tribe is currently (2007) in the process of formulating a strategic plan for their operations, but in general has shown an interest in developing at least small-scale potential tourism opportunities, having had positive experiences in recent years with cruise ship-related business, a group of "rock hounds" in 2004 at the Unga village site, and potential interest that has been shown in birding activities.

The Pauloff Harbor Tribe is a relatively newly formed entity, with 24 members as of 2007. The Pauloff Harbor Tribe has no business ventures in the community of Sand Point at the present, but is involved in working with the City of Sand Point and the other local tribes on recycling efforts and the local drum cleanup effort. It is also involved in other local environmental and health issues, particularly with respect to indoor air quality, and in the Sand Point area it is involved with a roads/trails inventory project in the Sand Dollar Beach area. The Tribe has a total of six employees working out of its office in Sand Point, four of whom are full-time and two of whom

are part-time, with a substantial portion of its funding through Environmental Protection Agency (EPA) grants. In addition to its office in Sand Point, the Tribe has a solar powered field office on its lands on Sanak Island. In the future the Pauloff Harbor Tribe may be more directly involved with local fisheries issues as it is working on fishing business plans and considering the possibility of becoming involved in value added operations, potentially in conjunction with other local entities, such as Aleutia and/or APICDA.

Lodging and Restaurants

In addition to the previously described Anchor Inn motel run by the Shumagin Corporation, lodging is also available in the community at Hodges Bed and Breakfast. The business was started in 1995 by a family whose original move to the community, like a number of other service provider owners, came about due to work at the local processing plant. In this case, the individual who worked at the plant did not go directly into owning a business, but worked for a local government entity for several years prior to retiring from that job and starting the bed and breakfast business. At present (2007) there are a total of nine rooms available for lodging. While the owners related that virtually all business is at least indirectly related to fishing, the proportion of business directly attributable to fishing customers per se is perhaps 10 percent or less, with the bulk of the customers being primarily from a constituency built up over the years, including visiting government employees from various agencies or departments such as the FAA and the Occupational Health and Safety Administration, school district personnel, medical personnel, and court system employees, along with a wide variety of individuals visiting the community on various other business, such as lawyers, accountants, and tribal employees, among others. Unlike the motel, few construction project personnel utilize the bed and breakfast as the owners are reticent to not be able to accommodate steady, returning customers. The relatively minor amount of direct fishing-related business includes the occasional skipper who desires some time away from the vessel while in port, and in the summertime crew members who want to get off the boat for a while and take advantage of "a clean bed and long hot showers" in addition to laundry facilities and other amenities offered. While business reportedly does not fluctuate directly with the fishing seasons like a number of other support business, business did drop off following 9/11 terrorist attacks and took quite a while to recover according to the owners. The only noted slow time on an annual basis comes in the December through mid-January period and is attributed to that being in general a time when fewer people are traveling on business in this part of the state.

There are a total of three restaurants in the community. The Harbor Café is located immediately adjacent to the Sand Point boat harbor. The restaurant has been in business since 1990, and as of 2007 regularly employed two individuals full-time. It is also linked to two other enterprises with common ownership, A&D car rentals (which includes 4x4 vehicles) and a taxi service. All of these businesses see seasonal fluctuations in demand directly related to commercial fishing. The café is reportedly busy during the January through March period when cod and other locally important fisheries are open with a slack period following before business picks up again in April when the fleet focuses on halibut. Summer salmon seasons are also busy, and halibut and black cod activities generate business until the end of October. November and December are slow enough that the café closes down during this period as, according to the owner, the townspeople cannot support the business in the absence of fishing activity. Reportedly

90 percent of the business derives directly from fishing, including locals working on their boats in the harbor who will eat at the restaurant while taking a break rather than going home and returning to work. Relatively little business is derived from local families eating out, which is ascribed to long-standing preferences in a community where historically there has been little access to restaurants. In addition to fishing, there is some business generated by bear hunting customers over a 2-week period once a year or so, as well as from construction crews, but seldom is there business related to processing activity, likely due to the availability of the Trident cafeteria to processing workers. There have been longer-term fluctuations in the café business related to fishing factors, including a need to lay off workers during the peak of Steller sea lion restrictions. According to the owner, the related taxi business was started to keep individuals already employed at the café working. There is another, longer established taxi business in the community. To avoid excessive competition, A&D cab is operational during the evening and night hours from 4:00 p.m. until 2:00 a.m., while the other service operates during the daytime from 8:00 a.m. to 10:00 p.m. or so.

Bozo's Burgers has been in business in Sand Point since 1987, originally starting in the old Post Office building before moving to its present location next to a building that houses the AC Value Center store in 1990. The restaurant is operated seasonally from May through August. It is owned by a couple who are long-time residents of the community, with the woman of the couple being the only full-time employee of the business, although her husband performs equipment maintenance and repair for the business (in addition to commercially fishing salmon during the summer season). During peak periods a part-time employee helps with the cash register, but otherwise the restaurant is run as a one-person operation on a day-to-day basis, supplemented by another part-time person for order deliveries. The restaurant used to be open on a year-round basis, but the owners live part of the year in the community and part in Anchorage and it was proving uneconomic to run the business during the slower part of the year while additional costs were being incurred for heating and hiring a manager when the owners were not present. According to the owners, the niche market for Bozo's is kids and their parents, as it has a number of toys and games available, and allows kids to simply "hang out." A concerted effort has been made to keep prices modest for food that children normally order, such as chicken nuggets, French fries, and milkshakes. As a measure of the casual nature of the restaurant, if things get too busy, customers will often make their own milkshakes, or other customers will be pressed into service if a new customer needs assistance with something. The restaurant does draw clientele from community residents and outside persons, such as construction and quarry workers, but according to the owners, local kids are the ultimate base of the business (in combination with their parents who follow). In contrast to the other two restaurants in the community, Bozo's is not a "sit down" restaurant in the words of its owners, but offers a place, especially for kids, to socialize. Bozo's is open for business from 11:00 a.m. to 7:00 p.m. daily during its summer season and business is characterized as good during the season, with Fridays being especially busy (due to a good reputation for a clam chowder special on that day). The owners are presently considering extending hours on Friday and Saturday evenings.

The third restaurant in the community, Aleutian China, operates in a leased space in the Aleutian Commercial building itself. It is the newest restaurant in Sand Point. It is differentiated from the Harbor Café and Bozo's Burgers by, among other factors, having a larger seating capacity and having a liquor license which, according to another restaurant owner, does tend to draw fishing-

related business. In addition to the three restaurants, limited food service (including pizzas, hamburgers, and other "microwavable" food) is also available in the community at the Sand Point Tavern operated by the Shumagin Corporation. The Trident cafeteria provides a fifth dining option for the people of Sand Point, although the vast majority of those who eat at the cafeteria are Trident employees. Mondays, however, feature an alternating schedule of prime rib and t-bone steaks, which draws a higher proportion of local community members than other nights.

Miscellaneous

There are a number of other small businesses in the community that may have some connection to fisheries-related activities. One individual does business as Island Marine Surveyors, providing vessel appraisals for insurance or sales. Sand Point Air Fuel and Freight supplies aviation fuel to customers other than the main carrier (PenAir) at the local airport, hauls fuel for local residents, and acts as the agent for some air freight services in the community. Tiffany's Tech Services is an individual who moonlights providing information technology/computer services to residents of Sand Point. Bering Sea Treasures sells handmade crafts and souvenirs, along with artwork local to the community, while Shumagin Island gifts sells a variety of locally branded souvenir items. Both of these businesses have people from outside of the community as a part of their client base, with fishing-related activity as the primary draw for outsider travel to Sand Point. Other business services are provided locally by entities otherwise based outside of the community on an episodic basis. For example, Joanna's Bookkeeping, owned by an individual originally from Sand Point, operates out of Unalaska/Dutch Harbor, but this individual occasionally comes to Sand Point to assist a variety of clients, including fishermen, with business bookkeeping.

Another relatively new business may become directly involved in fishing support in the future. Sand Point Auto opened for business in late 2006 in a shop facility adjacent to Carl's general store. This shop formerly contained the NAPA auto parts store but had sat vacant for a number of years before being purchased by the owner of Carl's and leased out to the owner of Sand Point Auto. Sand Point Auto is a one-man operation and is currently (2007) the only automotive repair business in Sand Point. This individual is trained in automotive, marine, and diesel engine repair as well as hydraulic systems. Since opening, he has concentrated on the automotive business, although some heavy equipment repair has been undertaken and future marine-related business is reportedly a possibility, depending on the ultimate success of the automotive business.

2.3.4 Other Local Business/Service Activity

City of Sand Point and the AEB

The City of Sand Point is a major employer in the community, with a total of 28 city employees at present (2007). According to the mayor, current employment includes 3 positions in the harbor department, 4 in the police department, 3 in the city offices, 2 in the water/sewer department, 2 in sanitation, 1 in maintenance, and 12 in the public works department, plus a city administrator whose job is located in Anchorage. (Energy utilities in Sand Point are provided privately by TDX, the St. Paul ANCSA village corporation, through Sand Point Electric and Sand Point Fuel.) Many of these positions and a portion of the demand for associated services

are directly or indirectly related to commercial fishing in one way or another. The level of city employment has been stable over the past few years, with the only seasonal fluctuation being two or three workers from public works and/or maintenance that have taken time off to engage in commercial fishing during the summer salmon season. Sand Point is also the seat of the AEB, and there are three AEB employees based in the borough building in Sand Point (the mayor, a clerk, and a maintenance person), with other borough employees being located in King Cove (finance officer and hovercraft crew) and Anchorage (administrator).

Clinic

As in other fishing communities, the Sand Point Clinic sees a significant amount of fisheries-related demand for services. In terms of medical needs, the Sand Point Clinic, which moved into a new building in July 2006, provides services for emergency, routine, and chronic needs and is typically open for regular care during normal business hours. It does provide 24-hour emergency services through the 911 system. This new building allowed for the consolidation of medical, behavioral, and information technology services, which were formerly housed in separate structures in the community. The new clinic represents the joint efforts of a number of different entities in and outside of the community, including the Shumagin Corporation, which donated the land for the site, and the Denali Commission (including federal funding), the AEB and the City of Sand Point, QTT, the Unga Tribe, and the Eastern Aleutian Tribes which, among other entities, worked together to help fund the project. The architecture of the building, inspired by the hull of a ship, reflects the maritime orientation of the community. The clinic is operated under the auspices of the Eastern Aleutian Tribes (which runs seven clinics in the APIA region as well as the community of Whittier), with ties to the Indian Health Service system. As a federally designated Community Health Center, services are offered to the public on a sliding scale fee basis, under which fees may be reduced by 20 to 80 percent of normal fees based on ability to pay. As a part of the Indian Health Service system, services are offered to Alaska Native residents at no charge to the client, unless that person is covered by employer or private/personal insurance, in which case the clinic will do third-party billing for services.

Local medical staff includes two mid-level practitioners (currently [2007] nurse practitioners) and three community health aides. The clinic is planning to add another mid-level practitioner, either a nurse practitioner or a physician's assistant, in the near future. Community health aides are essentially the equivalent of nurse practitioners in terms of level of care provided, but are trained and certified through a federal Indian Health Service program rather than through the State of Alaska as are the nurse practitioners. Additionally, a staff of three provides behavioral, mental health, and substance abuse services at the clinic. Clinic support staff includes one clinic manager, one receptionist, one biller, two information technology personnel, and one part-time janitorial/maintenance person.

Additional services are available on a periodic basis. A midwife visits the clinic yearly to conduct a women's health seminar. Dental services are provided twice yearly at the clinic by a non-resident dentist, but this service is technically only available to Alaska Native residents of the community due to the program's Indian Health Service funding structure. At present (2007), the Eastern Aleutian Tribes are attempting to locate and hire a full-time dentist who would be a direct employee and would service all of the clinics in the system and thus be able to provide

care to all Sand Point residents (and the residents of the other communities in the Eastern Aleutian Tribe's service area). A non-resident dental hygienist on regional staff does visit the clinic twice per year and all community members are eligible to take advantage of these services.

Patients needing more specialized medical care beyond the capacity of the clinic are transported to Anchorage. Services provided on-site include radiology and basic laboratory testing services. The new clinic also houses the Sand Point ambulance (which is operated by a separate local emergency medical services team under the auspices of the City of Sand Point) and a morgue. Prescriptions are dispensed at the clinic through the use of a Pickpoint machine, a type of secure vending machine for prepackaged pharmaceuticals that is electronically linked to the supervising hospital in Anchorage. A nurse practitioner enters information regarding a recommended prescription on the machine's terminal, which transmits the recommendation to a licensed pharmacist. Upon receipt, the pharmacist checks for interactions and either approves or denies the recommendation. If approved, the machine dispenses the bottle automatically and prints the appropriate label. The Pickpoint machine also automatically tracks inventory and places shipping orders for additional medicine.

In terms of serving the fishing industry directly, the clinic does regularly receive requests for provision of medical services to workers at the Trident plant as well as from fishermen on boats affiliated with Peter Pan and Trident as well as independent local vessels. Often an injured worker or fisherman affiliated with one of the seafood processors will contact Trident or Peter Pan first, with the company then making a call to the clinic or the 911 system in case of a major emergency. Processing workers typically are covered by workmen's compensation as well as qualify for low or no fee services based on low-income criteria thresholds under the terms of the Community Health Center program in cases where employers are not responsible for medical fees. Typically these services are either fee-positive or fee-neutral for the clinic (but even when fee-neutral the level of demand helps support a larger staff and more extensive resources that are then available to the community). Specific demand for fishing industry-related services vary by sector. According to clinic administration, processing worker visits are most commonly "overuse" difficulties related to back strains or other problems associated with standing for very long periods of time during extended shifts in the peak fishery seasons or repetitive motion injuries, but relatively few trauma cases are seen. Flu and pneumonia cases are also common among processor workers during December, January, and February. As a significant number of processors are less than fully fluent in English, communication with clinic staff can be a challenge to providing adequate and appropriate medical care. While the workforce composition at the plant is variable at from year-to-year, at present (2007) the clinic reports recently seeing a number persons with first languages other than English from Mexico and Latin America, the Philippines, and Somalia. Translation services for non-English-speaking processor personnel in need of medical care are conducted either through a phone-based translation service arranged by the clinic or through a third party (usually another worker who is bilingual) sent by Trident.

While repetitive motion injuries and flu cases are common among processor staff, cases are mixed among fishermen. Laceration cases are most common during halibut season and repetitive motion cases are most common during salmon and cod season. Clinic visits by fishermen are most common starting in June and continuing through August during salmon season, as well as December through February for the winter cod and pollock seasons. During

peak fishing and processing periods, fishing activity-related demand accounts for approximately 30 percent of total clinic demand, according to clinic management. During the remaining months, clinic administration estimates 10 percent of all clinic visits are those associated with the fishing activity. During off-peak times, fishermen tend to come to the clinic to address chronic problems that were ignored during the peak season in a manner similar to "delayed maintenance" on the fishing vessels themselves. Fishermen are typically covered by vessel Protection and Indemnity (P&I) insurance when they are working aboard vessels. Between worker's compensation and P&I coverage, provision of services for fishing activity- or fishing personnel-related injuries or illnesses is a very important source of income to the clinic that typically does not derive income directly from medical services rendered to qualified local (Alaska Native) residents that comprise the bulk of day-to-day residential service demand.

Miscellaneous

Proposed oil and gas exploration in the region has created the possibility that the local economy will become somewhat more diversified in the coming years. According to the *Outer Continental Shelf Oil and Gas Leasing Program 2007-2012 Draft EIS* (MMS 2006), two lease sales are proposed to occur within the North Aleutian Basin Outer Continental Shelf (OCS) planning area. While this planning area is on the northern side of the Aleutian peninsula, plans for the OCS activity propose a liquefied natural gas (LNG) production and export facility to be constructed near Lefthand Bay, which is approximately 18 miles northwest from Sand Point. Shell Oil, which supports the lease sale and presented information to the community of Sand Point during the public comment process, suggested that similar LNG production facilities have created over 2,000 construction jobs annually and typically require over 600 employees to operate. It is suggested that local energy would be provided by the plant, either through an oil-sharing program with nearby villages or through high voltage direct current distribution. The emergency response equipment and personnel potentially stationed at a future LNG production facility may also provide emergency response for the community, particularly for search and rescue tasks. It is generally hoped by local community members that a nearby LNG production facility would provide direct and indirect economic benefits either through direct employment at the facility or through increased visitation to the community (e.g., as a result of crew transfers and/or supply runs).

2.3.5 Subsistence Harvesting

According to a survey conducted by ADF&G in 1992 (ADF&G 2001), which is the most recent, most comprehensive, and considered to be the most representative survey available, subsistence harvesting in Sand Point is an important aspect of the local economy and social life. The ADF&G survey was able to solicit responses from 51 percent of the households present in Sand Point at the time. The results showed that all households used wild subsistence resources in one form or another, and 94 percent of all households actively harvested subsistence resources. The average Sand Point household harvested 760 pounds usable weight of wild foods, 54 percent of which was salmon and 21 percent was fish other than salmon, 11 percent were land mammals, 7 percent were marine invertebrates, 2 percent were birds and eggs, 2 percent were marine mammals, and 3 percent were wild plants (ADF&G 1993). The breakdown in use of non-salmon subsistence species for 1992, which is still considered to be the most representative year, show

that 89.4 percent of all households surveyed used halibut, while other highly used species included Pacific cod (60.6 percent), rockfish (also 60.6 percent), and char (51.0 percent) (ADF&G 2005). Data on marine mammal subsistence harvesting from 1993 report that 33 harbor seals were harvested for subsistence, and that 18.3 percent of all households used harbor seal for subsistence (ADF&G 1993). More recent harvest figures suggest that harbor seal subsistence use has declined, with only 15 harbor seals harvested for 2005, the most recent year available (ADF&G 2006).

A recent subsistence study conducted by ADF&G (2005) concerned with salmon use shows that Sand Point residents harvested approximately 4,075 salmon in 2003. Thirty salmon permits were issues, and 26 were returned. The vast majority of salmon caught for subsistence were sockeye (51 percent of total) and chum (27 percent of total). Complicating this measurement, however, is the vast number of people engaging in subsistence harvesting without a permit. Interviews conducted by ADF&G in 1992 suggest that 41 percent of households harvested salmon without a permit. These interviews suggest that another 39 percent of commercially collected salmon was used within the home. This trend in use is suggested to be higher when salmon prices are depressed.

2.4 LOCAL GOVERNANCE AND REVENUES

As noted in the introduction to this community, Sand Point is part of the AEB and has important revenue ties to the borough. The government is considered to be of strong mayor form with a six-member council (Sepez et al. 2005). Sand Point community-specific revenues for 1999 through 2007 are presented in Table SDPT-16. There is a 3 percent sales tax in Sand Point. Fish landings are taxed by a local 2 percent raw fish tax, as well as a 2 percent raw fish tax administered by the AEB. More detailed local fish tax information cannot be presented due to confidentiality restrictions. Sand Point does not have local property taxes.

The municipal revenues for Sand Point from 1999 to 2007, which are the latest numbers available, show that the primary sources of revenue are taxes, local enterprise, state fish tax sharing, and state/federal capital project revenues. Operating revenues for 2006 are the highest for the range presented. Revenue from local taxes generally increased from under $300,000 in 1999 to almost $1 million 2004, but sharply dropped in 2005 to less than $500,000 before rebounding to about $1.2 million in 2006 and 2007. Total revenues have fluctuated over the years, building annually from 1999 to 2002, before dropping by over 50 percent in 2003, building again annually from 2003 through 2005, followed by a decline in 2006 and an increase in 2007.

Local fish taxes provide a large proportion of the total revenue of the City, and the timing of the receipt of this revenue does influence the day-to-day operations of the City, according to finance department staff. During the April through July time period, the city "gets ahead" on collections over expenses, but during the December through February timeframe, tax receipts are lower than expenditures, so money has to be transferred from savings, and a close watch is kept for any possible cost savings during a period when labor expenses are relatively high, due to additional winter weather-related services demand.

Table SDPT-16. Municipal Revenues, Sand Point, 1999-2007

Revenue Source	1999	2000	2001	2002	2003	2004	2005	2006	2007
Local Operating Revenues									
Taxes	$287,282	$397,888	$671,101	$622,299	$762,046	$992,432	$489,309	$1,256,156	$1,246,960
License/Permits	$0	$0	$0	$0	$0	$2,350	$2,425	$2,750	$2,525
Service Charges	$130,118	$172,114	$185,180	$613,591	$169,686	$164,836	$378,408	$260,278	$176,204
Enterprise	$613,358	$630,887	$569,613	$552,828	$423,588	$727,364	$519,597	$697,890	$708,237
Other Local Revenue	$75,227	$90,365	$84,573	$111,038	$59,946	$72,577	$106,291	$294,279	$215,316
Total Local Operating Revenues	$1,143,646	$1,403,309	$1,619,388	$2,057,696	$1,541,387	$2,050,605	$1,579,265	$2,511,353	$2,349,242
Outside Operating Revenues									
Federal Operating	$38,047	$28,294	$24,208	$7,500	$0	$10,877	$0	$12,500	$15,375
State Revenue Sharing	$41,384	$27,275	$26,308	$26,303	$28,465	$0	$0	$0	$0
State Municipal Assistance	$28,228	$17,919	$16,162	$17,675	$19,193	$0	$0	$0	$0
State Fish Tax Sharing	$537,974	$644,525	$187,913	$164,249	$131,528	$170,903	$834,700	$255,609	$264,428
Other State Revenue	$37,950	$11,900	$9,400	$10,400	$22,100	$129,695	$46,189	$115,201	$87,066
Other Intergovernmental	$4,936	$2,594	$0	$196,000	$0	$0	$0	$0	$0
State/Federal Education Funds	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Outside Revenues	$688,519	$732,507	$263,991	$422,127	$201,286	$311,475	$880,889	$383,310	$366,869
Total Operating Revenues	$1,832,165	$2,135,816	$1,883,379	$2,479,823	$1,742,673	$2,362,080	$2,460,154	$2,894,663	$2,716,111
Operating Revenue per Capita	$2,176	$2,452	$1,978	$2,698	$1,840	$2,601	$2,619	$3,252	$3,051
State/Federal Capital Project Revenues	$213,727	$504,358	$1,094,488	$1,914,746	$308,802	$486,761	$1,197,832	$0	$583,154
Total All Revenues	$2,045,892	$2,640,174	$2,977,867	$4,394,569	$2,051,475	$2,848,841	$3,657,986	$2,894,663	$3,299,265
Total All Revenues (2006 Constant Dollars)	$2,475,701	$3,090,935	$3,391,740	$4,924,653	$2,247,703	$3,040,372	$3,775,986	$2,894,663	$3,208,547

Source: DCRA 2007; A. Logan, DCRA, personal communication, 2007, 2008; Federal Reserve Bank of Minneapolis 2008

Sand Point is currently (2007) seeing the completion of a major phase of improvements to Humboldt Harbor, adjacent to (and immediately southwest of) the existing Robert E. Galovin Small Boat Harbor. The scope of this portion of the harbor improvements is to install 1,805 lineal feet of timber floats, finger floats, an access trestle, gangway, and gangway floats and to place approximately 4,550 cubic yards of fill material to construct a 350-foot-long sheet pile wharf, plus additional dredging along the face of the wharf. The purpose of the project is to provide for vessel mooring within an 18-acre harbor. The new area is primarily intended for use by larger (80- to 165-foot-long) vessels. The completed harbor will include a 9,925-square-foot anchored sheet pile wharf and a heavy-duty timber float system for boat moorage and access (J. Renkert, personal communication, 2008). The 2007 phase of the project involves primarily structural components. Two additional phases of harbor improvements are scheduled for 2008-2010, which include adding floats for slips and otherwise outfitting the harbor for its primary uses, with a fourth phase encompassing upland improvements planned but unscheduled, pending funding availability.

Prior to the completion of the improvements currently (2007) underway, the capacity of the harbor is approximately 76 slips/152 berths. Most of the current harbor area is designed for smaller vessels, but it can accommodate a limited number of vessels up to approximately 130 by 42 feet. According to the Harbormaster, the harbor was still quite full in 2007, despite some loss of vessels over the past 5 years or so due to declines in local halibut IFQ activity (which saw the movement of some local vessels, but not necessarily residents to Kodiak and Sitka, among other ports) and BSAI crab rationalization (which resulted in decrease in preseason moorage demand in addition to other vessels leaving the fishery). In a turnaround from years past, however, there is currently (2007) no waiting list for slips/moorage.

The City of Sand Point provides a number of services at the harbor, including travel lift and storage area services for larger vessels and fork lift movement and storage area services for minor boats. The city also maintains an 80-by-150-foot building constructed with Steller sea lion fishing impact relief funds at the harbor and utilized for gear storage and as a net locker (although it is too small for trawl nets), and a small shop in a second building at the harbor (that is leased in part to Bravos Boats; the city also stores lumber for harbor maintenance projects in this area). The city is also planning on constructing additional storage capacity on the city dock.

The City of Sand Point derives a modest amount of revenue from the provision of services to the Trident processing plant. The plant does not utilize city water services, as it has its own independent water source, except in the case of some of the outlying housing units the processor owns. The plant does pay the City a flat rate of $3,000 per month for refuse services and an additional flat rate of $583 per month for sewer services.

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ADAK

CHAPTER 3.0
ADAK

The community of Adak is located on Kuluk Bay on Adak Island approximately 1,300 miles southwest of Anchorage and 350 miles west of Unalaska/Dutch Harbor, in the Aleutian Island Chain. Adak is the southernmost community in Alaska and, at 51°52' north latitude, is near the same latitude as London. It is also the westernmost civilian community in Alaska (and in the United States), located directly south of the easternmost portion of Siberia. Adak, not a part of an organized borough, is located in the Aleutians West Census Area. Incorporated as a second-class city in 2001, Adak encompasses 122.4 square miles of land and 4.9 square miles of water.

Adak lies in the maritime climate zone and is characterized by persistently overcast skies, high winds, and frequent cyclonic storms. Winter squalls produce wind gusts in excess of 100 knots. During the summer, extensive fog forms over the Bering Sea and North Pacific. Average temperatures range from 20 to 60°F, but wind chill factors can be severe. Total precipitation is 64 inches annually, with an average accumulated snowfall of 100 inches, primarily in the mountains. Large earthquakes were experienced locally in 1957, 1964, and 1977.

3.1 OVERVIEW

The Aleutian Islands were populated by human beings as early as 8,000 years before present (B.P.). The historical inhabitants of the Aleutian Islands area are known today as Unangan peoples or, more widely, as Aleuts, and they once heavily populated the island of Adak. The island was eventually abandoned as the site of year-round settlements in the early 1800s as the Aleut hunters followed the Russian fur trade eastward, and famine set in on the Andreanof Island group. In 1913, under an executive order (No. 1733) Adak became part of the Aleutian Islands Reservation, later the Aleutian Islands National Wildlife Refuge (NWR), as part of a federal effort to both protect sea otters that were on the brink of extinction due to overhunting for their furs, and to facilitate additional development of a fur trade based on fox farming in the region.

According to information supplied by D. Corbett (personal communication, 2003) of the U.S. Fish and Wildlife Service (USFWS), a synopsis of reports and general information on U.S. government reservations in Alaska compiled by H.D. Gray in 1938 shows that, from 1924 and 1926, Adak was leased by an entity named Adak Stock Propagation. Annual reports are missing from 1925, 1927, and 1928, but reports from 1929 through 1936 show that Adak Ranching Company of Seattle leased the island for an annual fee of $50. Some years had minimal or no trapping, but for 3 of the years in that span, the value of furs taken from the island were valued at between $17,000 and $18,000 per year. No information is available following the 1936 leases, which were due to expire in June 1938. Information circa 1937-1938 lists H.E. Bowman as the manager of Adak Ranching Company operations. Gray's compilation notes that improvements on Adak were valued at $9,000 and included 12 cabins, while an August 1936 report by Homer W. Jewell, Alaska Game Warden, states: "We are informed that there are eleven cabins and five barabaras on Adak Island. We noted three of the cabins." Gray's compilation also shows adjacent Kagalaska Island leased on an annual basis from 1921 through 1936 by Andrew Snigaroff of Atka, with improvements valued at $1,000, including two cabins.

According to interviews conducted by Corbett (personal communication, 2003), use of Adak was tied to the community of Atka, and one of her interviewees from Atka had trapped on both Adak and Kagalaska. Apparently different villages along the Aleutian chain considered a number of different islands as being under their control for trapping activities. Residents of Atka, the closest full-time community to Adak, trapped on multiple islands. For example, Andrew Snigaroff, the influential Atka resident who was shown as the lease holder for Kagalaska, also often spent the trapping season at Amchitka that was leased, but understood as owned, by the village of Atka. It was apparent to Corbett from interviews that Adak, notwithstanding recognition of formal lease arrangements, was understood by Atkans as theirs and that they had traditional rights to trap there. While H.E. Bowman owned or managed the Adak Ranching Company, leased the islands from the government, transported trappers to and from the islands, and bought the furs, the Aleuts did not consider themselves employees, but perhaps saw their roles as something more akin to independent contractors. It was, according to Corbett's interviews, the Aleuts who put up the cabins and put the foxes on the islands.

Despite the earlier abandonment of Adak as a place of year-round settlement, it is clear that trapping as well as hunting, fishing, and other subsistence activities by residents of Atka, if not other villages, continued to occur on and around Adak at least seasonally until the U.S. involvement in World War II began. Although little is apparently documented about the immediate pre-War years, according to USFWS staff, all during the time Adak was part of the Aleutian Islands NWR—and up through the beginning of the War—there were regularly used, established trapping camps on the island. Several of these were used annually by residents of Atka (D. Corbett, personal communication, 2002). Senior Aleut Corporation personnel also noted during interviews for this project that there was use and at least some occupancy of the island up until such use was terminated by the War and the post-War continuing military presence on the island.[8]

The U.S. Department of the Interior (USDOI) has retained ownership of a large part of the island through the present day, although the northern part of the island was originally withdrawn from direct USFWS management because of military exigencies associated with World War II. While never technically leaving NWR status, the military exerted primary jurisdiction and the USFWS secondary jurisdiction during military use of these lands. During the War, Adak was the site of both Army and Navy facilities; after the War the Army base was transferred to the U.S. Air Force and renamed Davis Air Force Base. Later, the Navy assumed control of all military facilities on the island. Three Naval commands operated on the island during much of the Cold War, including the Naval Air Facility (NAF), Naval Facility (NAVFAC), and Naval Security Group Activity (NSGA). Today (2007) much of the island is a part of the Alaska Maritime

[8] The occupancy of Adak immediately prior to World War II is not well documented in the secondary materials available at the time of this writing. According to a former President of the Aleut Corporation (V. Tutiakoff, Sr., personal communication, 2002), however, interviews have been done in recent years with individuals who had relatives on Adak at the time of the buildup of U.S. forces on the island, and who were subsequently displaced. At about this same time, there was a general consolidation of a number of very small villages throughout the Aleutian area, and many fewer settlements were repopulated after the War than existed in the decades beforehand. There are other lands in the region under federal jurisdiction at this point that may be future candidates for civilian repopulation similar to Adak. This would include, for example, Attu, which was a site of an Aleut village up until its capture by the Japanese in 1942, and to which the federal government did not allow residents to return following the War.

NWR, a successor USFWS-administered entity established in 1980 that encompassed the earlier established Aleutian Islands NWR and 10 other preexisting refuges as well as new lands scattered along and off of the coast of Alaska. While the northern portion of the island that was developed for military use remained the property of the USDOI through the Cold War itself, subsequent to the closure of military facilities following the end of the Cold War a significant portion of the island was brought under ownership and control of the Aleut Corporation by means of a series of land transfers as detailed below.

In terms of its military history, Adak became "a key operations and supply location for United States military forces after the Japanese occupation of Kiska and Attu islands during World War II" (EPA 2007). A substantial military buildup on Adak allowed U.S. forces to mount a successful offensive against the Japanese forces that had earlier captured and occupied Attu and Kiska islands farther west in the Aleutians. After the War, Adak was developed as a Naval Air Station as outlined above, but it also played an important role during the Cold War as a submarine surveillance center.

In the period following World War II, the U.S. Navy developed the community of Adak to support both military personnel and dependent families, transforming it into what became easily the largest community in the southwestern part of the state. In addition to housing, the military constructed several well-equipped facilities and recreation venues at Adak. These included a movie theater, roller skating rink, swimming pool, ski lodge, bowling alleys, skeet range, auto hobby shop, photo lab, and racquetball and tennis courts. A new $18-million hospital was built in 1990. At its peak, the installation housed approximately 6,000 naval personnel and their family members, along with a limited number of personnel from other governmental agencies, such as the USFWS, and civilian contracting personnel.

The end of the Cold War and the associated military base realignment and closure (BRAC) process brought sweeping changes to Adak. In 1994, severe personnel cut-backs occurred, and family housing and schools were closed. The station officially closed on March 31, 1997. A significant portion of Adak Island along with the naval facilities present were acquired in March 2004 by the Aleut Corporation, the regional ANCSA corporation of the Aleutian/Pribilof region, under the auspices of the BRAC and other federal land transfer processes. This was a multi-step process, with the land first reverting from Department of Defense (Navy) control to USDOI (USFWS) control. Next, the USDOI swapped lands on the northern end of Adak Island on an acre-for-acre basis with Aleut Corporation lands in the eastern Aleutians. This was considered advantageous by both the Aleut Corporation and the USFWS as the Aleut Corporation was interested in developing Adak as a civilian community and the USFWS was not as interested in managing the northern end of Adak as a part of the Alaska Maritime NWR—due to the type of development that has already occurred there and the subsequent relatively low wildlife values—as it was in incorporating the non-Adak Aleut Corporation-owned lands with much higher wildlife values into the refuge (e.g., lands with significant bird cliffs and no problematic nonindigenous species, such as rats) that were of lesser utility to the Aleut Corporation. The land exchange process resulted in approximately 47,000 acres of the northern portion of Adak being transferred to the Aleut Corporation. From this, some lands in and around the community proper were earmarked for transfer to the City of Adak.

Not all lands that were controlled by the military on the northern portion of the island passed into Aleut Corporation (or other private) ownership. A significant portion of land on the southeastern edge of the former military-controlled area was retained as federal land. This area has high wildlife value and is contiguous with the USFWS-retained southern portion of the island. A discontiguous land-locked portion of land, the Mount Reed Exclusion Area to the southwest of Adak, was retained by the USFWS for the protection of the endangered Aleutian shield fern, Alaska's only endangered plant. Finally, some lands around Andrew Lake and Andrew Bay on Adak's northern coast were retained at least for the immediate future, pending cleanup of the significant amounts of unexploded ordnance that remain in the area.

Establishment of a nonmilitary community on Adak preceded formal land transfer. Members of approximately 30 families relocated to Adak in September 1998 to start a civilian community on site. Most of these original relocating residents were Aleut Corporation shareholders, and a school was reopened to support this population. The community incorporated (as a second-class city) in April 2001.

The recent institutional context of Adak is somewhat complex, especially for a small community, due to the transitional process from a military to a civilian community. For land to be transferred under the BRAC process, a Local Reuse Authority (LRA)[9] was formed. In this case, the LRA was the Adak Reuse Corporation (ARC) a nonprofit entity formed for this purpose and composed of representatives from various entities in the region. According to senior Aleut Corporation staff, these entities included the Aleut Corporation, the City of Atka, the Aleutian regional school district, and the Aleutian/Pribilof Islands Association/Alaska Federation of Natives (AFN) villages. Additional seats are held by the fishing industry; a transportation interest; APICDA, which is the regional federal fisheries CDQ group; and the community

[9] An LRA is "any authority or instrumentality established by State or local government and recognized by the Secretary of Defense, through the Office of Economic Adjustment, as the entity responsible for developing the redevelopment plan with respect to the installation or for directing the implementation of the plan" (32 CFR 175, Section 175.7 [Procedures]). The ARC was intended to facilitate conveyance, in accordance with the following: "The Federal Government may best contribute to such reutilization and redevelopment by making available real and personal property at military installations to be closed to communities affected by such closures on a timely basis, and, if appropriate, at less than fair market value" (PL 103-160, Title XXIX, Subtitle A, Section 2901). Adak is perhaps unique among national base closure and reuse experiences in that it is not a community that is attempting to recover from the loss of a base. Rather, it is a community that is attempting to form in the wake of a base closure. On the other hand, Adak may be conceived of as part of a greater Aleutian regional "community" as represented by the Aleut Corporation and through historic Aleut ties to the land (and the wide ranging use patterns common in Aleut lifeways. While Adak arguably contributed very little to the other communities in the region during its operational military days, as there was virtually no social or economic interaction with other communities in the region (save for facilitating transportation links to Atka), as a newly organized civilian community the redevelopment of Adak would appear to be consistent with the federal policies on closed bases being used as economic engines for economically challenged areas: "It is DoD [Department of Defense] policy to help communities impacted by base closures and realignments achieve rapid economic recovery through effective reuse of the assets of closing and realigning bases—more quickly, more effectively and in ways based on local market conditions and locally developed reuse plans" (32 CFR 175, Section 175.4 [Policy]). The Adak case is also somewhat different than at least most other base realignment and closure experiences, given the earlier military withdrawal status from USDOI lands, and that lands and assets transferred in whole to another federal entity for subsequent "swapping" with the Aleut Corporation, rather than going directly to the ultimate reusers of the properties.

of Unalaska (although it is reported that a number of these seats turned over early in the process or were not active for at least some portions of the reuse process). Given this composition, the ARC, while formed specifically for Adak reuse needs, was more nearly a regional entity than a community-based entity, per se.[10] While the assets of Adak were still under Navy ownership, the ARC held a transitional Master Lease agreement for the base. In turn, the ARC sublet portions of the base and assets considered to have the potential for economic return to the Aleut Enterprise Corporation (AEC), a for-profit subsidiary of the regional Aleut Corporation. Formed to develop economic opportunities on Adak, the AEC, like its parent Aleut Corporation is not strictly a community based entity; though Adak-focused, AEC is run for the economic benefit of shareholders far beyond Adak. In a similar vein, while the AEC has focused its operations on Adak, there are at least tentative plans to extend AEC business ventures (e.g., marine fuel services) beyond the community itself. During the actual transition time, operation of the airport was run directly by the ARC[11] and there were a total of "five or six" ARC employees in the community, but post-land transfer, the ARC has been superseded by other institutions as it was, by design, an entity of limited duration intended to facilitate the transition process itself before dissolving. At present, lands and facilities under Aleut Corporation control are managed by a number of entities, including the AEC, the Aleutian Housing Authority (AHA), and the Aleut Corporation itself. The City of Adak operates community utilities and some of the existing facilities, but most of the earlier noted recreational facilities are now closed.

Scenes of the physical settings of Adak may be found in Plates ADAK-1, ADAK-2, and ADAK-3. Some of the physical layout of the community is portrayed in Plates ADAK-4 and ADAK-5. A map of the community is provided in Map ADAK-1.

3.2 COMMUNITY DEMOGRAPHICS

While there were both prehistoric and historic settlements in the area, the contemporary community of Adak traces its origin to a military settlement, not a traditional Aleut village in which outside port-related activity flourished like the major regional port of Unalaska/Dutch Harbor, or an initial contemporary founding as a commercial fishing outpost like Sand Point. Adak, in its most recent historical configuration, lost its "reason for being" as a result of the BRAC process in the mid-1990s. While there has been a continuity of the physical structure of the community, structures built by and for the military are housing current residents and businesses—the community has seen a population turnover with conversion to a civilian settlement, such that the present population of the community comes from an entirely different set of socioeconomic and cultural circumstances than those who built the physical community. From a demographic perspective, the Adak of 2000 was literally not the same community as

[10] Essentially by definition there was no civilian community of Adak when the ARC was formed and, given its composition and constituency, the interests of the ARC were not likely to be identical to the combined interests of the residents of Adak at any given time in the transition process. In this sense the Adak LRA experience was somewhat different to that seen in many other cases of base closures where there was an existing adjacent community both pre- and post-base closure from which an LRA was constituted.

[11] Post-transfer, the Alaska Department of Transportation and Public Facilities assumed responsibility and operational control and maintenance of the airport.

the Adak of 1990.[12] Although the contemporary population does not have an Aleut majority, the community is, in several ways, an Aleut community by virtue of the driving role of the Aleut Corporation in its foundation and development and the influence of Aleut-related corporate and sociopolitical institutions on the daily life and continuing evolution of the community if not through a predominant role of Aleut individuals in local governmental positions. Adak did not qualify as an Alaska Native village under the terms of ANCSA, as it was essentially a non-Native community at the time of the passage of the Act (1971). As such it does not have a local village corporation, nor does it have local Alaska Native tribal structures, such as an Indian Reorganization Act village government or traditional council, common in regional ANCSA communities. There is interest on the part of some in seeing if such local structures could be established in Adak to help foster growth and put the community on a more equal footing with its regional neighbors. Consistent with life in other Aleut-influenced communities in the region, there is a Russian Orthodox congregation in Adak, with services led by a local lay leader.

The contemporary civilian population of Adak initially grew out of an outreach program to shareholders of the Aleut Corporation. This program brought people to the island early in the transition process and included employment related to transition, caretaking, and operation of the initial service enterprises. According to the AEC, this served to expose people to living on the island and the opportunities that were available there, which has increased retention. Initially, non-shareholder-related residents typically came to the community primarily through contractor employment as well as through government and fishery-related employment, although in recent years a number of people have come to the community after becoming aware of opportunities through kinship and friendship networks involving individuals who already moved to the community. At least a couple of current residents of Adak were stationed on the island during previous military service, and at least some had local experience as contractors to the military prior to conversion to a civilian community, but otherwise there is little direct population continuity between the military and post-military chapters of the community's recent history.

Some of the attributes of the contemporary community may be seen in Plates ADAK-6, ADAK-7, and ADAK-8.

3.2.1 Total Population

Table ADAK-1 provides U.S. Census population figures for Adak, by decade, for the period 1970-2000. As shown, the population more than doubled between 1970 and 1990. Following the closure of the military facilities in the 1990s, however, the population of the community in 2000 was less than 7 percent of the 1990 figure.

[12] There are at least a few current (2007) residents of Adak who were residents of Adak at some point during the military era when they, or family members, were either employees of contractors on the island or on active duty in the military. These individuals include, among others, a local business owner, the city manager, the harbormaster, an Alaska Department of Transportation employee, and the superintendent of the fuel dock. At least one current resident, whose father was an airline local station manager, was born and raised in the community.

ADAK

PLATE
ADAK-1
PHYSICAL SETTING

Top: A view of Lucky Point across Sweeper Cove

Bottom: A metal Quonset hut located outside of the community

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PLATE
ADAK-2
PHYSICAL SETTING

Top: Sunset across lakes located outside of the community

Bottom: Mountains east of Finger Bay

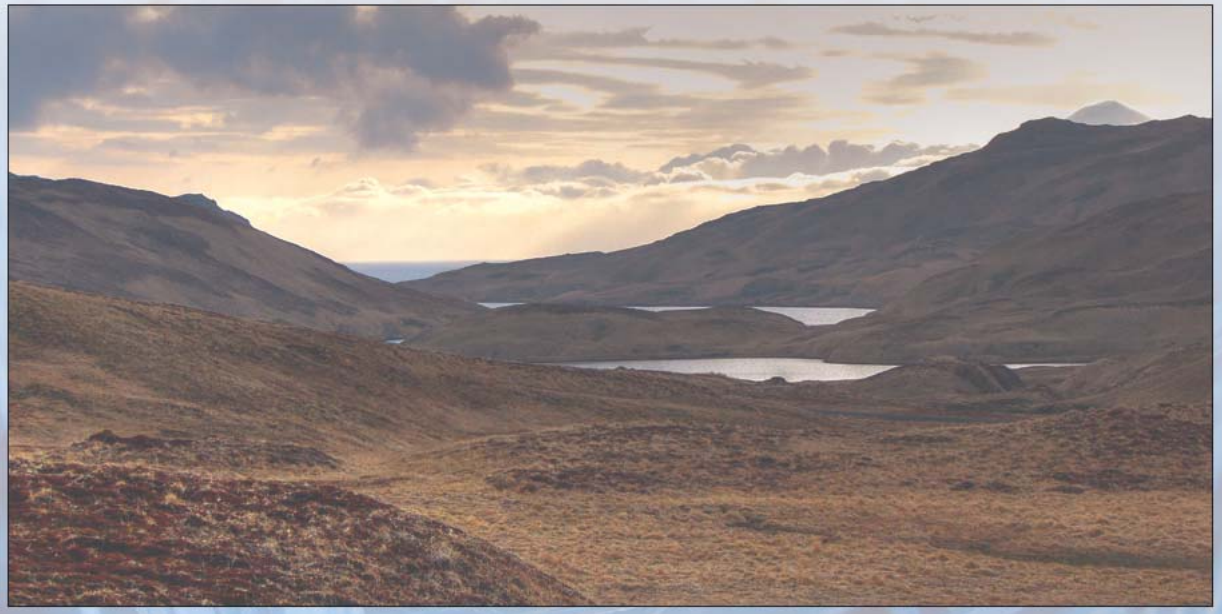

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PLATE
ADAK-3
PHYSICAL SETTING

Top: Mountains east of Finger Bay

Bottom Left: Unpaved roads leading to former military areas

Bottom Right: Exit to the sea from Finger Bay

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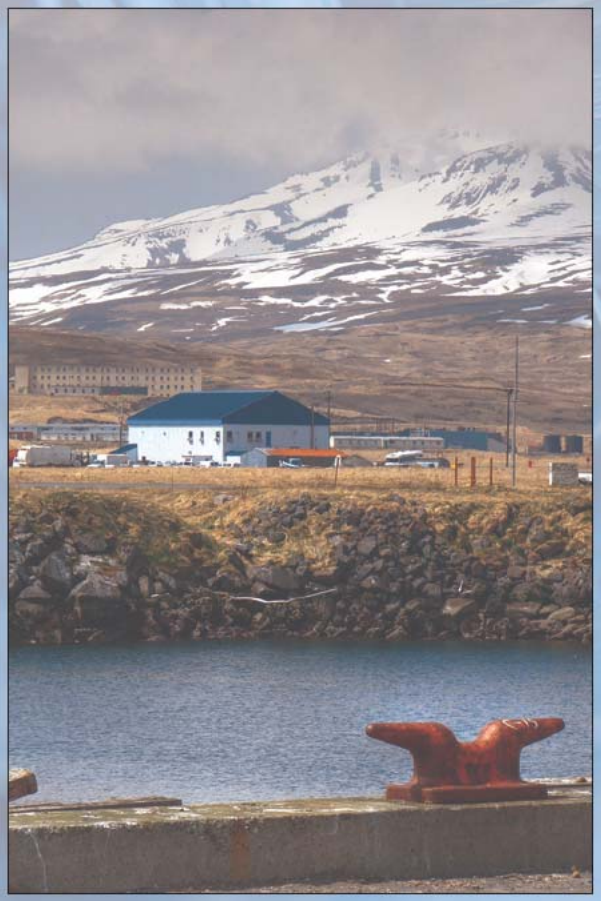
ADAK

PLATE
ADAK-4
SPATIAL RELATIONSHIP

Top: Small boat harbor at the base of small mountains

Bottom Left: Community facilities and military structures with Mt. Reed in the background

Bottom Right: The exit of Sweeper Cove to the sea and nearby mountains



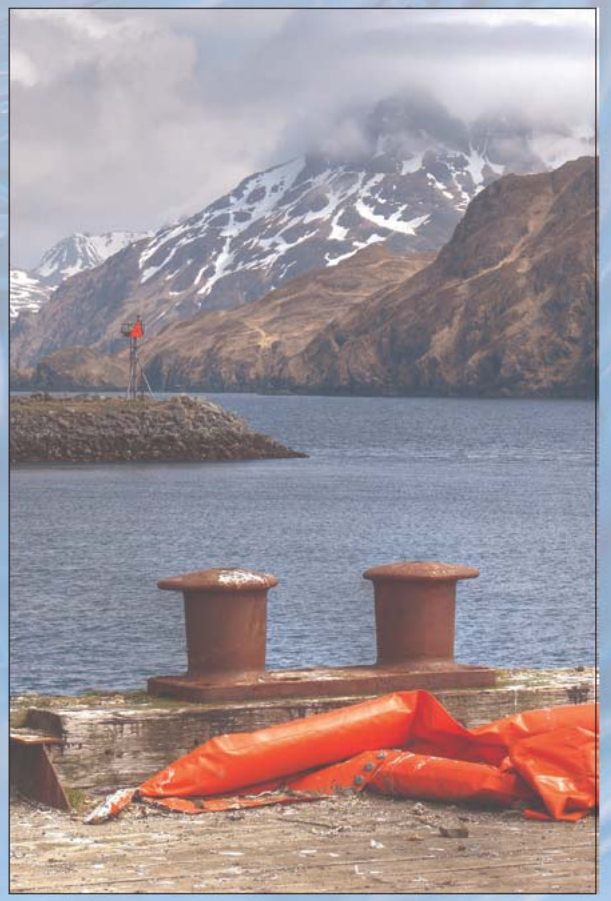


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PLATE
ADAK-5
SPATIAL RELATIONSHIP

Top: The community of Adak as seen from near the water tanks

Bottom Left: Old military housing and current harbor facilities in relationship to mountains east of Finger Bay

Bottom Right: Single-family housing in relationship to smaller mountains surrounding Mt. Reed

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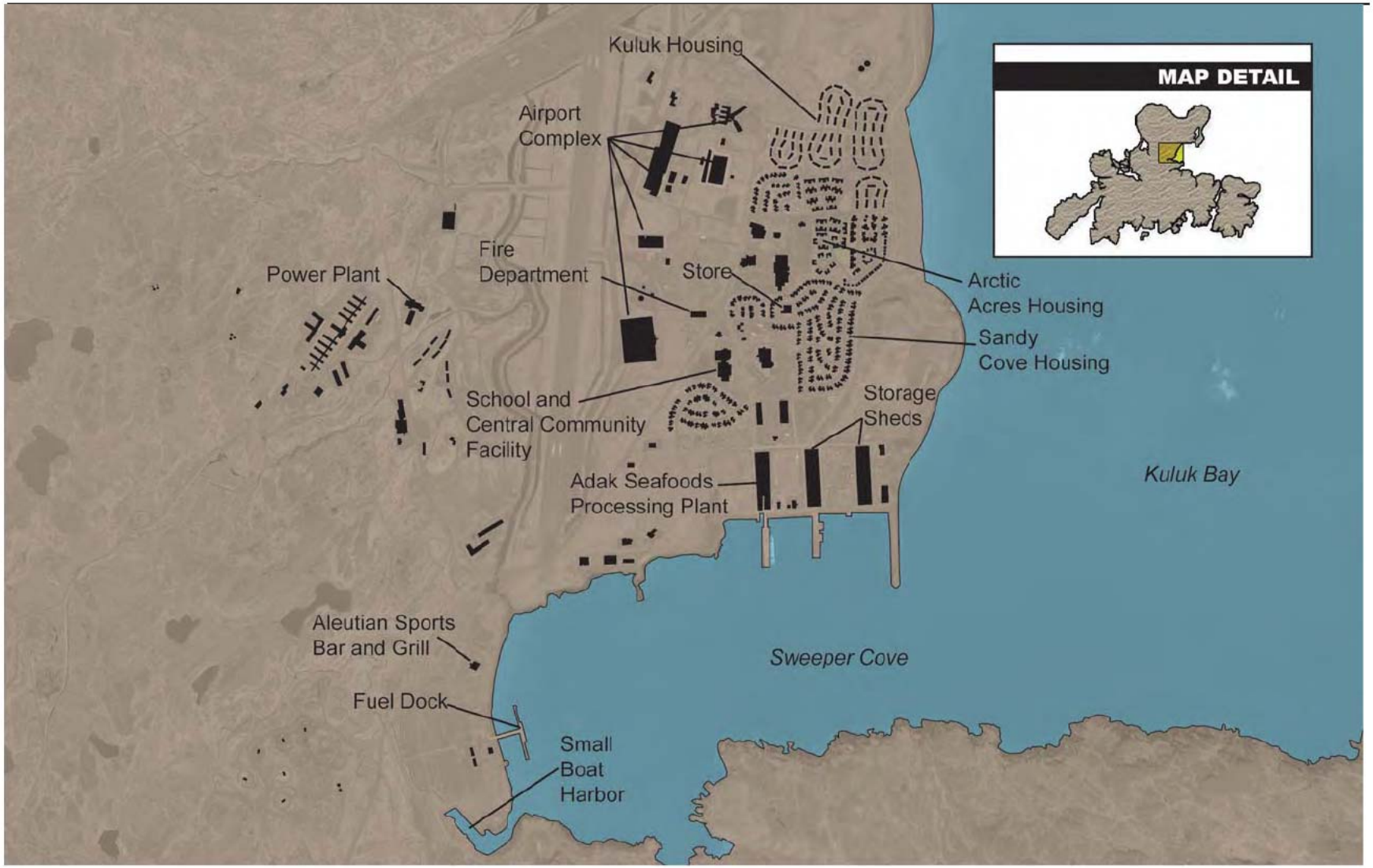

Source: Google Earth; ESRI

Map ADAK-1
Community of Adak

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ADAK

PLATE
ADAK-6
COMMUNITY ATTRIBUTES

Top: A visiting bird-watcher looks for rare species

Bottom Left: An abandoned structure away from the community

Bottom Right: Satellite dish array

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PLATE
ADAK-7
COMMUNITY ATTRIBUTES

Top Left: Abandoned military-era church

Top Right: Abandoned military-era group quarters housing

Bottom Left: Abandoned military-era McDonald's Restaurant

Bottom Right: Airplane hangar with squadron insignias

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PLATE
ADAK-8
COMMUNITY ATTRIBUTES

Top Left: Abandoned underground fallout shelter

Top Right: Abandoned weapons storage bunker

Bottom Left: "Adak National Forest," a small collection of conifers planted to boost morale during the military-era

Bottom Right: Abandoned cars and other military-era machinery

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Table ADAK-1. Population by Decade, Adak, 1970-2000

Year	Population
1970	2,249
1980	3,315
1990	4,633
2000	316

Source: DCRA 2007; U.S. Census Bureau 2007b

The population of the community does fluctuate seasonally, and it is apparent that there are currently (2007) fewer year-round residents in Adak than were enumerated in 2000, although estimates of year-round residents vary. According to City of Adak staff estimates, in 2007 the population was somewhere around 120 year-round residents, which reportedly has stabilized, up from an estimated low of less than 100 in or around 2005. During fieldwork in May 2007, a number of different local government and business leaders in Adak had varying estimates of the permanent year-round population, but it is unclear whether individuals had varying ideas about what constitutes permanent residency, if there had been recent changes some were not taking into account, or if some persons were simply inaccurate in their estimates. What is clear, however, is that there is considerable variation from season to season, there has been considerable fluctuation over time due to the evolving nature of the community and the changes in the employment base over the course of that evolution, and there has been a loss of permanent residents since the 2000 census.

In terms of annual fluctuations, during the peak fishing seasons a substantial number of additional individuals come to the community to work at the processing plant. Another population spike occurs during "contractor season" from June to September, as during that time contractors come to the community to work on various environmental remediation and unexploded ordnance disposal projects. As the transition from a military to civilian community has progressed, however, these numbers have decreased substantially in the last few years. While the continuing activity does benefit the summer seasonal economy of the community, very few local residents continue to participate in these activities and transient workers do not tend to subsequently settle in the community and bring their families to Adak, so there is little direct impact on community population dynamics associated with these activities. Further, the smaller operations of recent years tend to be relatively self-contained, barging in food, equipment, and other supplies, although at least some beneficial spill-over into the local economy certainly continues to occur.

3.2.2 Ethnicity

Table ADAK-2 provides information on the ethnic composition of the population of Adak in 1990 and 2000. As shown, in addition to a dramatic population reduction, the ethnic composition of the community has changed dramatically during the decade. For example, the Native American/Alaska Native component of the population approximately doubled in size from 1990 to 2000, and when combined with the overall population decline, this population segment went from comprising about 1 percent of the population in 1990 to about 35 percent of the population in 2000. It is important to note, however, that none of the Native

American/Alaska Native residents identified themselves as Aleut in the 1990 census; therefore, even within this population cohort there has essentially been a 100 percent turnover between 1990 and 2000. All other ethnic groups showed dramatic reductions in absolute numbers, although Asian/Pacific Islanders gained in relative proportion of the population while other groups stayed about the same or declined. Interview data from previous fieldwork suggest that at least a couple of current residents represent a small degree of population continuity that is otherwise absent over military-post-military time span.

Table ADAK-2. Ethnic Composition of Population, Adak, 1990 and 2000

Race/Ethnicity	1990		2000	
	Number	Percent	Number	Percent
White	3,655	78.9%	157	49.7%
Black or African American	501	10.8%	4	1.3%
American Indian, Eskimo, Aleut	55	1.2%	111	35.1%
Asian or Pacific Islander*	331	7.1%	37	11.7%
Other**	91	2.0%	7	2.2%
Total Population	4,633	100%	316	100%
Hispanic origin, any race***	255	5.5%	16	5.1%

*In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 6) and Asian (pop 31).
**In the 2000 census, this category was Some Other Race (pop 0) and Two or more races (pop 7).
***"Hispanic" is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).
Source: U.S. Census Bureau, 2007a, 2007b

3.2.3 Age and Sex

Table ADAK-3 provides information on age and the male/female ratio of Adak's population in 1990 and 2000. The median age for Adak in 2000 was 35.2 years, whereas the national age median was 35.3 years. Perhaps counterintuitively, Adak has a greater male-to-female imbalance as a civilian community (in 2000) than it did as a military community (with dependent families) in 1990. The predominance of males in the 2000 community population is attributable to a male-dominated transient workforce. Also, according to local residents, Navy policy did not allow nondirectly employed personnel on the island until 1997 or so. As the large majority of contractors were male at the time, this had a marked influence on the male-female ratio. As an example of recent changes in the demography of the island, one current part-time resident

Table ADAK-3. Population by Age and Sex, Adak, 1990 and 2000

Attribute	1990		2000	
	Number	Percent	Number	Percent
Male	2,777	59.9%	205	64.9%
Female	1,856	40.1%	111	35.1%
Total	4,633	100%	316	100%
Median Age	NA		35.2 years	

Source: U.S. Census Bureau 2007a, 2007b

characterized herself and a relative as "the first two wives on the island," an event that occurred a few months before the main civilian population relocated to the island. Also, according to local residents, Navy policy discouraged civilian families with children from coming to the island for a substantial period of time due to unexploded ordnance dangers (a stance that some found inconsistent with the prior [officially condoned] presence of large numbers of military families), and this has also had an impact on the sex and age structure of the present community.

The Adak school, a kindergarten through grade 12 facility, operated by the Regional Educational Attendance Area (REAA), is part of the Aleutian Region School District. This district spans a geographic area from Unalaska Island (exclusive of the incorporated municipality of Unalaska itself) to Attu Island, encompassing the schools at Adak, Atka, and Nikolski. During the current (2006-2007) school year, peak enrollment at the Adak school was 23 students before declining to the official annual attendance figure of 19. School staff included 2 teachers (one each for grades K through 5 and grades 6 through 12), one assistant, and one part-time custodian (with the latter position filled by the city maintenance department). Retaining continuity of teaching staff has reportedly proven a challenge over time and both teaching positions were turning over at the end of the current school year. Local staff resources are also supported by a part-time superintendent who works out of the district office in Anchorage.

School enrollment figures for the years since Adak became a civilian community are presented in Table ADAK-4. As shown, enrollments have fallen substantially from a high of around 50 students during the first couple of years the school was reopened to around 20 at present, a decrease of about 60 percent. According to school staff, this drop is likely associated with the changing nature of work and contracting on Adak. Over the last few years, contracting has been more focused on unexploded ordnance cleanup than other tasks, and these crews tend to be composed of individuals from outside who rotate through the community. In contrast, earlier environmental remediation work involved larger numbers of individuals who brought their families to the island with them, and a greater percentage of the direct work was accomplished through the regional Aleut Corporation or its subsidiaries which, in turn, attracted a higher proportion of workers from communities within the region. As this work has wound down and

Table ADAK-4. School Enrollment, Adak, FY 1999-2007

Fiscal Year	Student Count
1999	48
2000	51
2001	26
2002	37
2003	19
2004	15
2005	18
2006	19
2007	21

Note: Fiscal year designation notes the calendar year in school year ended (e.g., 2003 refers to the 2002-2003 school year).
Source: L. Giddings, personal communication, 2002, 2007; Alaska Department of Education & Early Development 2007

the associated contracting employment opportunities have dropped off, a number of families with school-aged children have left the community, at least some of whom have apparently returned to their previous home communities within the region. According to district staff, the decline in student numbers in Adak has created a challenge for the range of programs or particular opportunities that can be offered, some of which, such as a previously planned but not executed maritime program, need critical numbers of students to move forward.

The current Adak school is located in one portion of the ground floor of the two-story former military-era high school building (also located in this building at present [2007] are the City of Adak offices, the post office, the clinic, a small bakery and grocery store, a restaurant, a video rental business, and former USFWS visitor center displays donated to the city for use in a community room, among other things). The school is faced with infrastructure challenges similar to those experienced by the community as a whole: how best to utilize facilities and services designed for a community roughly 40 times larger than the present population. The school, for example, includes gymnasium, racquetball, weight training, and competition-sized indoor pool facilities that are not heated, maintained, or used at present due to lack of financial resources to do so.

In terms of representation of seafood processing-associated students and Alaska Native students within the total student population, of the 23 peak attendance students during the 2006-2007 school year, a total of 5 were from families associated with the local seafood processing plant and 7 students were of Aleut descent, according to school staff. Specifically, of the 11 total students in grades K through 5, 3 students had at least one parent employed at the seafood plant and 4 were of Aleut descent. Of the 12 total students in grades 6 through 12, 2 students had at least one parent employed at the seafood plant and 3 were of Aleut descent. These categories for students, however, are not mutually exclusive. In fact, Adak Fisheries, according to local personnel, likes to employ workers from other Aleutian communities (many of whom are Aleut) in the plant when possible because there is a perception that individuals and families that are already regional residents may find the scenery and weather of Adak familiar and would be more likely to have these attributes facilitate rather than serve as an impediment to workers and their families permanently relocating to the island and becoming part of a stable local workforce. During the 2006-2007 school year, none of those enrolled in the Adak school were "English as a second language" students.

3.2.4 Housing Types and Population Segments

The group housing situation in Adak is markedly different than in other regional communities such as Unalaska, Sand Point, and St. Paul.[13] While group housing in the other profiled

[13] Similarly, Adak is not comparable to other regional communities in terms of the infrastructure or other physical attributes of a community both in absolute terms or in terms of ratios of various service units to population. Constructed to support a military-related peak population at least 40 times larger than the current (2007) population, and to support technically and logistically complex air, surface, and submarine combat and support operations, the physical community of Adak is of scale very much larger than required to support its current civilian population and economy. This situation is not unprecedented in the region, as it very closely parallels the circumstances of Unalaska following World War II (although, in the Unalaska case, most military facilities were cordoned off from the community through the late 1950s).

communities has normally been associated with the seafood processing workforce, in Adak group housing was associated with the military. As shown in Table ADAK-5, 30 percent of the population lived in group housing in 1990 when Adak was still a military community, and none of the population lived in group housing in 2000 after conversion to a civilian community.

Table ADAK-5. Group Quarters Housing Information, Adak, 1990 and 2000

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	4,633	1,391	30.02%	3,242	69.98%
2000	316	0	0.00%	316	100.00%

Source: U.S. Census Bureau 2007a, 2007b

At present (2007), only a few housing units are occupied to the north or west of the airport runways in the Amulet housing area, and virtually all of the community residents live in either the Sandy Cove housing area, in the southeast portion of the community, or the Kuluk housing area, which is located north of Sandy Cove. During and immediately following the transition of Adak to a civilian community, nearly all community residents lived in the Sandy Cove area. More recently, however, the Aleut Corporation sponsored a program that allowed both resident and nonresident shareholders alike to relatively easily obtain individual ownership of housing on Adak. Generally, those Aleut Corporation shareholders who claimed a home in Adak under this program did so in Kuluk, citing new siding, less overall damage from weather and neglect, and a one-floor layout as major draws, particularly for elderly residents. Those living in Adak who are not Aleut Corporation shareholders still generally live in Sandy Cove. Other housing areas exist in and around the main portion of the community of Adak. According to local interviews, there have been some discussions of relocating excess housing stock to other regional communities with housing needs, such as Nikolski, before the severe weather and lack of local maintenance capacity inevitably take their toll on the unused housing units, such as is currently happening to units in the Bayshore housing area where wind and weather damage is degrading the units beyond repair. One of the housing areas considered as a possible source of housing for export to other communities due to their modular construction is Arctic Acres (locally dubbed the "Flintstones houses") but is unclear whether it would be economically feasible to move these units, particularly when it is not clear that they were built to regionally sustainable standards for weather proofing and energy efficiency. Plates ADAK-9, ADAK-10, and ADAK-11 include photographs of different housing types in the community, including homes in the Kuluk, Sandy Cove, Bayshore, and Arctic Acres housing areas.

Table ADAK-6 provides 1990 census information on group housing and ethnicity for Adak and Table ADAK-7 provides similar information for 2000. In 1990, the statistics are indicative of a military-related population, with a relatively high proportion of whites, distributed relatively evenly between group quarters and non-group quarters housing. While group housing is nonexistent in numbers from 2000, research in 2007 suggests that those people associated with the installation, maintenance, and security of the locally sea-based X-Band (SBX) radar facility live together in residential units, creating de facto group quarters living.

Table ADAK-6. Ethnicity and Group Quarters Housing Information, Adak, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	3,655	78.89%	1,066	76.64%	2,589	79.86%
Black or African American	501	10.81%	222	15.96%	279	8.61%
American Indian, Eskimo, Aleut	55	1.19%	16	1.15%	39	1.20%
Asian or Pacific Islander	331	7.14%	53	3.81%	278	8.58%
Other race	91	1.96%	34	2.44%	57	1.76%
Total Population	4,633	100.00%	1,391	100.00%	3,242	100.00%
Hispanic origin, any race	255	5.50%	81	5.82%	174	5.37%
Total Minority Population	1,106	23.87%	361	25.95%	745	22.98%
Total Non-Minority Population (White Non-Hispanic)	3,527	76.13%	1,030	74.05%	2,497	77.02%

Source: U.S. Census Bureau 2007a

Table ADAK-7. Ethnicity and Group Quarters Housing Information, Adak, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	157	49.68%	0	0.00%	157	49.68%
Black or African American	4	1.27%	0	0.00%	4	1.27%
American Indian, Eskimo, Aleut	111	35.13%	0	0.00%	111	35.13%
Asian or Pacific Islander	37	7.14%	0	0.00%	37	7.14%
Other race	7	11.71%	0	0.00%	7	11.71%
Total Population	316	100.00%	0	0.00%	316	100.00%
Hispanic origin, any race	16	5.06%	0	0.00%	16	5.06%
Total Minority Population	172	54.43%	0	0.00%	172	54.43%
Total Non-Minority Population (White Non-Hispanic)	144	45.57%	0	0.00%	144	45.57%

Source: U.S. Census Bureau 2007b

Table ADAK-8 displays basic information on community housing, households, families, and median household and family income for Adak in 2000. Perhaps the most striking statistic in this table is the number of vacant housing units, listed in 2000 as 725. This statistic, along with total households and family households, is most likely lower with the 2007 population hovering somewhere around 120, as opposed to 2000's total count of 316. Also worth noting is the median household and family income for Adak, which is over $10,000 more than the median household income for the United States as a whole ($41,994). This income does not have as much buying power in Adak, however, where a common staple like a half-gallon of milk is $6.49 (2007) and produce, when available, can easily be twice as expensive than in the 48 contiguous states.

ADAK

PLATE
ADAK-9
HOUSING TYPES

Top and Bottom Left: Duplex housing in Sandy Cove

Bottom Right: Arctic Acres and Sandy Cove housing

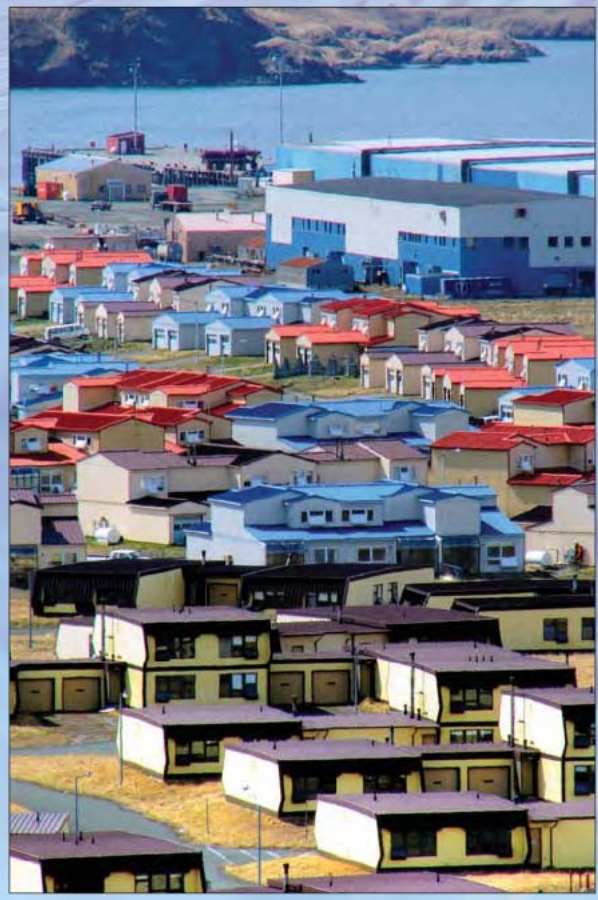

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PLATE
ADAK-10
HOUSING TYPES

Top Left: Duplex housing in Sandy Cove

Top Right: Duplex housing in Kuluk

Bottom Left: Modular housing in Arctic Acres

Bottom Right: Duplex housing in Kuluk

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PLATE
ADAK-11
HOUSING TYPES

Top: Housing near Kuluk Bay in Bayshore

Bottom Left: Modular housing in Arctic Acres

Bottom Right: Duplex housing in Sandy Cove

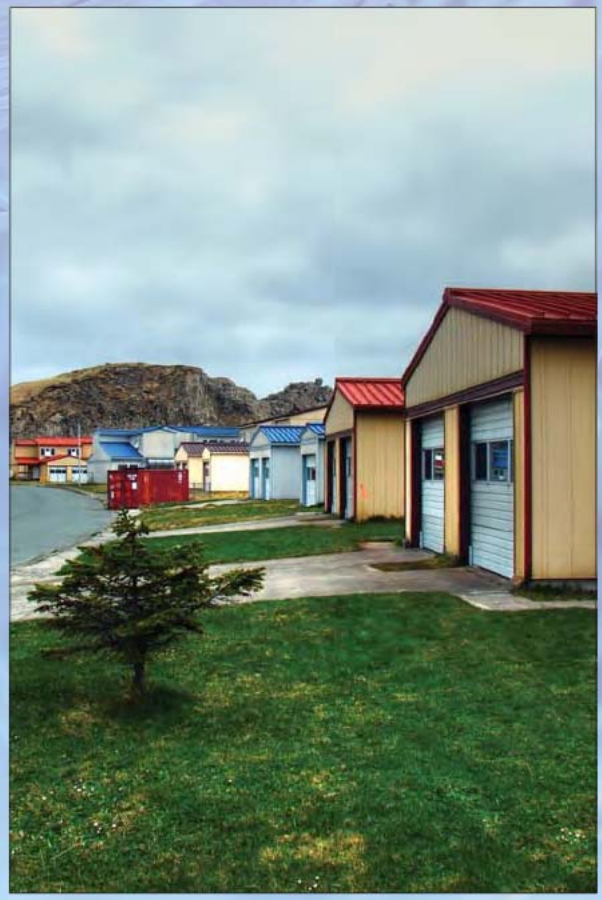

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Table ADAK-8. Selected Household Information, Adak, 2000

Community	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
Adak	884	725	159	1.99	$52,727	61	2.90	$53,889

Source: U.S. Census Bureau 2007b

The transfer associated with the BRAC process resulted in the housing, community buildings, and infrastructure becoming property of the Aleut Corporation and residential occupancy patterns are still evolving. Between January and June 2006, the Aleut Corporation, in what was characterized as a one-time deal, offered corporation shareholders what essentially amounted to a free home in Adak in an attempt to build a community base and ease housing pressures in other regional communities. Each shareholder could qualify for one building, and although no one under 18 years of age could qualify for a deed, those families with multiple qualifying shareholders could obtain multiple homes. As part of the program, shareholders were required to come to Adak, perform physical inspections, and select a unit. While an estimated one to two dozen families went through this process and a number of transactions (estimates ranged up to 50 or so) were at least initiated, this arrangement has not been overwhelmingly successful in increasing the community population base at least in the short run, however, with only one family permanently resettling in Adak from outside the community through this process to date (2007). Residents of Adak interviewed in 2007 attributed the relatively low participation in the homesteading process in part to the high number of repairs needed to make any residence livable after years of deferred maintenance, in addition to the local high cost of living and general isolation. Moreover, money and resources must be spent bringing the residence up to code, as the housing was historically exempt due to previous military ownership.

A majority of the maintained properties not homesteaded by Aleut Corporation shareholders are managed by the AHA, a private institution that develops property and manages sales, rentals, and residential maintenance in 13 communities along the Aleutian chain and in the Pribilofs. For many of the same reasons that shareholder homesteading was largely unsuccessful, no non-shareholders own housing units in Adak. Although a two-bedroom, two-bath unit was priced at $40,000 in 2007, repairs and bringing the electric and water systems up to code were estimated to require another $15,000. While still relatively affordable at a combined $55,000, non-shareholders were not offered the opportunity to purchase the land upon which the units were built and this arrangement apparently made housing investment less attractive than would otherwise be the case. Finally, there is a perception in the community that the glut of available housing units has undercut any investment opportunity, as people interested in moving to Adak could just as easily purchase directly from the Aleut Corporation as from any individual owner. Thus, according to interview data, apparently all non-shareholder families rent units, with a single known exception where a duplex was purchased by a non-shareholder directly from a shareholder.

Current (2007) lease rates per unit are $525 per month, plus tax, for a total payment of $540.70 per month, with a minimum lease of 6 months. The 45 permanent rental units managed by AHA are located in Sandy Cove. The units were selected by AHA staff before the homestead program was started by the Aleut Corporation, resulting in a collection of AHA-managed properties that

are generally well maintained and little damaged compared to surrounding units. Housing units in Arctic Acres are neither being rented nor sold by the AHA. The AHA was not involved in the Aleut Corporation shareholder homesteading program, nor does it retain responsibility for individual shareholder-owned housing.

3.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

The Aleut Corporation is currently developing Adak as a commercial center and a civilian community with a private sector economy, and this development focuses heavily on the potential for commercial fishing, and support of commercial fishing activities, in the Western Aleutians area of the Bering Sea and the North Pacific Ocean. The community is also the beneficiary of two fishery management programs expressly intended to foster fisheries-related development in Adak: an allocation of Western Aleutian Islands golden (brown) king crab and an allocation of the Aleutian Islands pollock fishery.

The Western Aleutian Islands golden king crab allocation to Adak was approved by the North Pacific Fishery Management Council (NPFMC) in 2003 as part of the BSAI crab rationalization process and became mandated by congressional action in 2004, taking effect in 2005. The allocation is made to a nonprofit entity representing the City of Adak and had been in place for two seasons at the time of fieldwork (2007) for this project, and had yielded mixed results to date. The city did derive at least some modest revenue from the lease of the allocated quota during the first year of the program, but problematic fishery conditions (including poor prices) resulted in no lease payments, according to city leaders, for harvest of the allocation in the second year of the program.[14]

As part of the 2004 Appropriations Act, Congress allowed for a directed Aleutian Islands pollock fishery, with any directed fishing allowance (total allowable catch reduced by any incidental catch allowance in other directed fisheries) allocated to the Aleut Corporation, with the intent of supporting economic development in Adak. Details of the allocation were approved by the NPFMC in 2004 and the final rule published in 2005. Part of the program provides for distribution of harvest between small vessels (<60 feet) and American Fisheries Act-qualified (larger) vessels that is phased over time to favor increasing participation of small vessels (to stimulate the growth of a local small boat fleet), with an eventual 50/50 harvest split to be achieved by 2013. The to-date local results of this program are discussed in the community processing section, below.

The nearest neighboring community is Atka, which also participates in commercial fishing, but with a strong focus on halibut and sablefish harvested by a small-scale local fleet, as opposed to the broader range of fisheries pursued by the fleet delivering to the processor on Adak.[15] Unlike Adak, Atka is a CDQ community (and an ANCSA village, also unlike Adak). There is concern on the part of the community of Adak and the regional Aleut Corporation, the

[14] No vessels were interested in leasing quota with a royalty obligation during year two of the program due to poor prices, so the Adak community quota was given to a vessel, royalty free, with the stipulation that the crab harvested would be delivered to Adak. By the third year of the program, however, standard 20 percent of value lease royalty payments to the community entity were reportedly again collected.

[15] At the time of this writing (2007), Atka was planning on processing crab and Pacific cod in the near future.

developers of Adak, that the development of fisheries-related opportunities in Adak be undertaken in such a way as to not adversely impact present and future opportunities in the community of Atka.[16]

Other local economic activity in Adak includes contract work performing environmental cleanup of the former military facilities. Visitor attractions include wildlife viewing (such as marine mammals and birds), caribou hunting, fishing, hiking and World War II and Cold War military installation facilities. With approximately 16 miles of paved roads, and other gravel and dirt roads, accessibility to lands outside the immediate community is relatively good for the region.

In a number of ways, the dominant economic entity in contemporary Adak is the AEC, which received funding from the Navy to caretake, operate, and downsize the facilities at Adak during the transition period. A number of these tasks were, in turn, subcontracted out to other entities, including the City of Adak. In one way or another, the AEC is involved in most economic activities in the community either as an active participant or as a landlord.

Like other communities in the region with commercial development, Adak's economy is marked by seasonal variation. Rather than being nearly exclusively fisheries driven as is the case in other communities, however, locals report that there are two main "seasons" on Adak: fishing season and "contractor season," although a third, less intense, "birder" season has grown in recent years. Local fisheries activity peaks in the first few months of the year when cod effort is most intense and overlaps with other fisheries, although there are secondary peaks at other times during the year.

Private businesses in Adak are limited in number and proprietors of businesses on Adak are likely to operate more than one service, such that it is not uncommon to deal with the same person in two or three different capacities over the course of a day. With the seasonal fluctuation

[16] It should be noted that villages within the region encompassed by the Aleut Corporation belong to two different CDQ groups, the Central Bering Sea Fisherman's Association (St. Paul) and the APICDA (Akutan, Atka, False Pass, Nelson Lagoon, Nikolski, and St. George). Adak and Unalaska are not CDQ communities, but Unalaska participates in APICDA programs as an *ex officio* member. This being the case, Aleut Corporation interests on fisheries development issues in Adak may not be identical to the interests of each CDQ group or community in the region, although Aleut Corporation shareholders make up a greater or lesser proportion of the population of every community in the region.

Further, some residents of Adak have cited benefits received by residents of Atka as a result of the development of Adak, such as bringing local fuel prices down and increasing the availability of air and surface transportation. However, it is known that at least in the past there was some ambiguity on the part of Atka residents regarding potential positive and negative impacts of having Adak develop as a community in the same general area, particularly in terms of fishery development-related issues. In the absence of discussions with Atka residents, it is not clear whether the benefits of the development of Adak are now perceived to outweigh the possible regional competition costs to the community of Atka. Additionally, there were some indications that at least some residents of other communities in the region were of the opinion that the development of Adak and the fostering of fisheries development in Adak may be "taking another slice" out of a limited pie, meaning that any gains by Adak would be losses from other (established) communities. Again, however, it is not known how widely held or deep these types of concerns are. As many residents of at least a majority of other regional communities are Aleut Corporation shareholders, theoretically there would be at least some direct benefit to these individuals of the successful redevelopment of Adak, but how these unknown gains compare to potential competitive losses is unclear.

in activity, some business owners (as well as their employees) find themselves working a collection of part-time jobs over the course of the year, hiring on seasonal help as one part-time job comes to require more personal time during a busy season.

Despite a relatively large number of services for the size of the community, there are a number of support businesses directly associated with the fishing fleet that are not present in Adak. Interviewees responded that a ship supply, specialized maintenance services, electronics repair services, and a sheltered small boat harbor would be needed for a substantial local fleet to exist, but these services are not currently present. Irregular barge service and a dependence on air freight for nearly everything also creates an environment where large-scale ship repair ranges from inconvenient to prohibitively expensive. Without these services, Adak is finding it difficult to attract a local fleet and without a sizable local fleet, there are few economic incentives for these services to exist.

According to senior Aleut Corporation officials, one of the challenges in creating a private sector civilian economy has been the transition from an outside contractor to a resident worker configuration. Typical contracting positions pay relatively high hourly wages and include subsidized housing and free utilities. With the transition to a truly local economy, the wage rates seen in contracting could not be maintained, nor could the type of housing and utility subsidies that were previously common, and this has reportedly been a difficult adjustment for a number of residents or potential residents. In addition to fishery, fishery support, federal, and federal contractor-related local economic activities, the Aleut Corporation is exploring the potential for the development of secondary economic sectors based on oil exploration and development support in the Russian far east and the possibility to market bottled water, among others.

Table ADAK-9 below shows general employment and poverty information for Adak. Like all tables comparing census data from 1990 with data from 2000, a substantial change can be seen between the two survey years. The proportion of unemployed residents has grown since during the military era, to a level more similar to that seen in other rural Alaskan communities. The proportion of adults not working in 2000 is also higher than what was experienced in 1990, with 16.3 percent of adult residents not working. This statistic could indicate the limited nature of employment opportunity in Adak, although respondents contacted in 2007 were clear that economic opportunities existed in Adak for those people interested in providing an original service and willing to make an initial investment in resources.

Table ADAK-9. Estimated Employment and Poverty Information, Adak, 1990 and 2000

Year	Total Persons Employed	Total Persons Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
1990	3,130	51	1.5%	8.4%	237	2.0%
2000	200	16	6.7%	16.3%	23	4.7%

Source: U.S. Census Bureau 2007a, 2007b

The following discussion outlines the harvesting, processing, and support service sectors of the fishing industry in Adak at a more detailed level.

3.3.1 Harvesting

Community Fleet Quantitative Description

Table ADAK-10 provides information on the characteristics of vessels owned by Adak residents for the period 1995 through 2006. This information is collected by the CFEC when vessel owners renew their registration. As shown, the local fleet in Adak is relatively small compared to other communities profiled in this document, specifically Sand Point and St. Paul. Also, the fleet in Adak is almost completely composed of vessels 32 feet or less in length overall. One vessel appears in the 50 to 59-foot range, most likely a 58-foot-long vessel. The year 2004 experienced a spike in smaller craft, seeing five vessels 0 to 26 feet in overall length registered. Of the six vessels registered in 2006, five of them are aluminum, and half are diesel powered. One vessel with refrigeration appears sporadically in the data, but was not registered in Adak in 2006. In a community with few vessels, many of which are of a small length/capacity class, the participation of nonresident vessels can dramatically skew community landings and earnings data as noted below.

In addition to vessel ownership information, data on permit holders for Adak provide a perspective on local harvester engagement in various fisheries. Table ADAK-11 shows the number of persons in the community who own permits in one, two, three, or all four of the major fishery groups in Alaska, by year, for the period 1995 through 2006. Table ADAK-12 shows the percentages of all permit holders who owned permits in the different combinations listed (Additional information on permit holders by community may be found in Appendix A). As shown, only one local resident has ever owned permits in three of the fisheries during any one year, with the majority of residents owning just one permit in each of the years shown. Of these people owning one permit, the halibut and sablefish fishery saw the most participation. For the latest year shown (2006), 83 percent of all permit holders in Adak had a permit for groundfish, with one of these permit holders also having a halibut/sablefish permit. Of the six permit holders in Adak in 2006, only one permit holder had a salmon permit, which was combined with a crab/other permit.

Summary catch and earnings estimates for the community may be made through using the annual CFEC data report called "Permit and Fishing Activity by Year, State, Census Division or Alaskan City." Table ADAK-13 aggregates and summarizes estimated landings and gross revenue data for Adak into 14 gear and species groups for the years 1995 through 2005 (Note that this table, unlike the previous table, displays the number of permits held, not the number of permit holders). Where the number of permits in any group is less than that required to permit disclosure of actual data, an algorithm was used to produce "reasonable estimates" of total catch and earnings. (A more detailed explanation of the algorithm methodology is provided in Appendix A.) The highest amount of landings in pounds, by a wide margin, was for longline-caught groundfish, at 346,907. Unsurprisingly, longline groundfish also exhibits the highest estimated gross revenue in 2005 at $111,056.57. These amounts are attributed to two fished permits, which dwarf the weight and estimated gross revenue seen for other fisheries in 2005. The change in the fishery from 2004 (a year when only halibut was caught) to 2005 (a year when halibut, sablefish, and groundfish were caught) resulted in nearly 15 times more revenue for Adak permit holders.

Table ADAK-10. Characteristics of Vessels Owned by Residents of Adak, 1995-2006

Characteristics	Year											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Number of Vessels	-	-	-	-	-	4	6	3	3	8	6	6
Number of Vessels Fishing	-	-	-	-	-	3	6	3	3	8	6	6
Number of Vessels By Size												
0-26 feet length overall	-	-	-	-	-	2	3	1	2	5	3	3
27-32 feet length overall	-	-	-	-	-	1	1	1	1	1	1	2
33-49 feet length overall	-	-	-	-	-	-	-	-	-	1	1	-
50-59 feet length overall	-	-	-	-	-	1	2	1	-	1	1	1
60-124 feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
125+ feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
Average Age of Vessels (years)	-	-	-	-	-	27	25	26	28	25	27	27
Number of Vessels by Hull Type												
Aluminum	-	-	-	-	-	-	-	-	-	5	4	5
Fiberglass/Plastic	-	-	-	-	-	3	5	3	3	3	2	1
Rubber	-	-	-	-	-	-	-	-	-	-	-	-
Iron/Steel/Alloy	-	-	-	-	-	1	1	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Number of Vessels with Refrigeration	-	-	-	-	-	-	1	1	-	1	1	-
Number of Vessels Using Diesel	-	-	-	-	-	1	2	2	1	4	4	3

Note: CFEC analysts provided vessel registration data of all resident vessel owners by community and year. Vessel registration data are available on the internet at www.cfec.state.ak.us/fishery_statistics/vessels.htm. The data were summarized by Northern Economics, Inc.
Source: CFEC Vessel Registration Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table ADAK-11. Distribution of Permit Holders across Fisheries for Adak, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in Only One Major Fishery Group												
Salmon (SM)	0	0	0	0	0	0	0	0	0	0	0	0
Groundfish (GF)	0	0	0	0	2	3	3	2	2	2	1	4
Halibut and Sablefish (HS)	0	0	0	0	0	0	0	1	0	0	0	0
Crab/all other species (CO)	0	0	0	0	0	0	0	0	0	2	0	0
Persons with Permits in Two Major Fishery Groups												
SM, HS	0	0	0	0	0	0	0	0	0	0	0	0
SM, GF	0	0	0	0	0	0	0	0	0	0	0	0
SM, CO	0	0	0	0	0	0	0	0	0	1	1	1
HS, GF	0	0	0	0	0	0	0	1	0	0	1	1
HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
GF, CO	0	0	0	0	0	1	1	0	0	0	0	0
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	0	0	0	0	0	0	0	0	0	1	0	0
SM, HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
HS, GF, CO	0	0	0	0	0	0	1	0	0	0	0	0
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Total of All Permit Holders												
All Fisheries	0	0	0	0	2	4	5	4	2	6	3	6

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table ADAK-12. Percentage Distribution of Permit Holders across Fisheries for Adak, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in only One Major Fishery Group												
Salmon (SM)	-	-	-	-	-	-	-	-	-	25%	33%	17%
Groundfish (GF)	-	-	-	-	-	-	-	25%	-	-	-	-
Halibut and Sablefish (HS)	-	-	-	-	100%	100%	80%	50%	100%	50%	33%	67%
Crab/all other species (CO)	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, One Fishery Group	-	-	-	-	100%	100%	80%	75%	100%	75%	67%	83%
Persons with Permits in Two Major Fishery Groups												
SM, HS	-	-	-	-	-	-	-	-	-	-	-	-
SM, GF	-	-	-	-	-	-	-	-	-	-	-	-
SM, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF	-	-	-	-	-	-	-	25%	-	-	33%	17%
HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Two Fishery Groups	-	-	-	-	-	-	-	25%	-	-	33%	17%
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	-	-	-	-	-	-	-	-	-	25%	-	-
SM, HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF, CO	-	-	-	-	-	-	20%	-	-	-	-	-
Subtotal, Three Fishery Groups	-	-	-	-	-	-	20%	-	-	25%	-	-
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Total of All Permit Holders												
All Fisheries	-	-	-	-	100%	100%	100%	100%	100%	100%	100%	100%

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table ADAK-13. Summary Catch and Earnings Estimates for Adak Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Held											
Halibut	-	-	-	-	-	-	-	2	-	1	1
IFQ Sablefish	-	-	-	-	-	-	-	1	-	-	1
Salmon Seine	-	-	-	-	-	-	-	-	-	1	1
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	1	-	-
Herring	-	-	-	-	-	-	1	-	-	3	1
Groundfish Longline	-	-	-	-	-	2	2	2	2	2	1
Groundfish Jig	-	-	-	-	1	2	-	1	1	1	1
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	1	1	1	1	1	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	0	0	1	5	4	7	5	9	6
Permits Fished											
Halibut	-	-	-	-	-	-	-	1	-	1	1
IFQ Sablefish	-	-	-	-	-	-	-	1	-	-	1
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	1	-	1	-	-	2
Groundfish Jig	-	-	-	-	1	1	-	-	-	-	1
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	0	0	0	0	1	2	0	3	0	1	5

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Table ADAK-13. (continued)

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Landings (pounds)											
Halibut	-	-	-	-	-	-	-	21,919	-	4,292	7,189
IFQ Sablefish	-	-	-	-	-	-	-	9,792	-	-	11,812
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	11,181	-	38,503	-	-	346,907
Groundfish Jig	-	-	-	-	13,791	14,674	-	-	-	-	12,675
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	1,453	10,814	7,906	-	-	-
Total	0	0	0	0	13,791	27,307	10,814	78,119	0	4,292	378,583
Estimated Gross Revenue (dollars)											
Halibut	-	-	-	-	-	-	-	$38,299.45	-	$10,845.14	$20,120.58
IFQ Sablefish	-	-	-	-	-	-	-	$18,227.60	-	-	$23,543.00
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	$12,401.50	-	$7,903.75	-	-	$111,056.57
Groundfish Jig	-	-	-	-	$4,762.80	$4,638.38	-	-	-	-	$4,124.00
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$0.00	$0.00	$0.00	$0.00	$4,762.80	$17,039.88	$0.00	$64,430.80	$0.00	$10,845.14	$158,844.15
Total in 2005 Constant Dollars	$0.00	$0.00	$0.00	$0.00	$5,583.28	$19,325.72	$0.00	$69,946.28	$0.00	$11,212.58	$158,844.15

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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Table ADAK-14 provides estimates of the percentage of nonconfidential gross revenue for Adak permit holders by species group, by year, for the period 1995 to 2005. These data provide one type of fundamental measure of "dependency" of community harvesters on particular fisheries. As noted above, the longline groundfish fishery has become relatively important in the most recent year, accounting for nearly 70 percent of gross revenue.

Communities also directly benefit from the harvest sector through participation of residents as crew members as well as through the engagement of vessel owners and permit holders. Beginning in 2000, the CFEC has produced estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a Crew Member License with ADF&G. (A more complete discussion of this methodology may be found in Chapter 1.0.) Table ADAK-15 provides estimates of crew members for Adak for the years 2000 through 2006. These data should be only taken as a rough indicator of the level of involvement of community members, but they do indicate that a sizeable proportion of the total population of the community is engaged in commercial fisheries.

Table ADAK-15. Estimated Number of Permit Holders and Crew Members from Adak, 2000-2006

Year	Permit Holders	Crew Members	Total
2000	3	2	5
2001	CFEC did not report data for 2001		
2002	4	3	7
2003	2	18	20
2004	5	12	17
2005	3	20	23
2006	6	7	13

Source: CFEC 2007b

Spatial Distribution of Harvester Effort

Figure ADAK-1 provides information on the spatial distribution of groundfish catch for vessels owned by Sand Point residents for all gear types for the years 2002-2005. Since Adak's fishery is relatively new, the same level of description present in the other community profiles is not capable for Adak. Confidentiality issues also prevent the spatial description of the halibut, salmon, and sablefish harvester effort. Regardless, the geographic range of disclosed harvests is similar to those seen in the other communities with small, local fleets, such as St. Paul, St. George, and to some extent, Sand Point, with effort concentrated in the waters directly adjacent to the community.

Community Harvester Characterization

As a new civilian community, Adak does not have a large established residential fishing fleet. Prior to land transfer being completed (2002), there were two fishing vessels owned by full-time residents of the community. One of these vessels, a 32-footer, had reportedly not yet fished

much around the community but was set up for jigging cod and longlining halibut, while the other one, a 24-footer, had fished Pacific cod within the 3-mile limit. (A third boat in the 22- to 24-foot range was also present in the community but had apparently not been active in the most recent seasons.) A fourth vessel, a 40-footer, was from Kodiak but was considered by some as a local boat because it had been present in Adak for over a year and had locally fished black cod and halibut.

While the current, truly local fleet is still somewhat fluid and few in number, the community is actively promoting the growth of a small boat fleet. Local vessels, including small vessels, are desired by the community for a number of reasons. Larger vessels from outside the community tend to be self-supplied and may work the area without coming into the community. Small, locally based vessels, on the other hand, buy local groceries, utilize local goods and services, have crew who live in the community, and otherwise are seen as generally contributing to a developing local economy. Perceived challenges to the development of a local fleet include relatively little quota, a lack of fishing history (and therefore established quota) because of the former military history of the community, a competitive disadvantage with respect to other communities that have CDQ and other available quota, and the fact the local crab fishery is a deep water fishery (in the range of 200 to 250 fathoms) that requires a relatively large vessel to successfully pursue.[17]

At the time of fieldwork in 2007, five small vessels considered "local" by residents were actively engaged in, or attempting to be engaged in, area fisheries. These are *Julie Ana*, *Sofia Grace*, *Homeward Bound*, *Larisa M*, and *Heritage*. These vary somewhat in "how local" they are considered by residents and are described below. Additionally, there are a number of other vessels that spend time in Adak and may have the community name painted in the transom due to any number of factors, such as overlapping ownership interests with locally based enterprises, but none of these vessels are considered a part of the local fleet as they have stronger homeporting and/or fishing effort ties elsewhere. Plates ADAK-12, ADAK-13, and ADAK-14 show the local fleet and the harbor facilities in Adak.

Of the five local vessels, two 38-foot boats, *Julie Ana* and *Sofia Grace*, are owned by the local processor, Adak Fisheries, as opposed to local community residents. These boats, new additions to the local fleet, were equipped for jigging and longlining at the time of the field visit in May 2007; however, *Julie Ana* was undergoing repairs to its hull and *Sofia Grace*, while not dry docked, had damage to its coupling and was not operational. At the time of fieldwork (2007), it was not clear from where these vessels will draw their skippers and crew, which would, in part, determine their degree of integration into the overall "local" aspects of an Adak-based harvest sector.

Homeward Bound was a pioneer vessel in Adak's small boat community fleet; however, it does not currently (2007) actively participate in the commercial fishery in Adak. Originally outfitted to jig for cod for sale to the elite market when the vessel first came to Adak in 2000, the owner of *Homeward Bound* found that a diversification of effort was needed to make a living in Adak,

[17] Local fishermen report that to effectively fish local brown (golden) king crab in the 200- to 250-fathom range requires the use of 50 or so pots on a string, which translates to a vessel in the neighborhood of 100 feet or longer.

Table ADAK-14. Percentage of Gross Revenue Estimates for Adak Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Gross Revenue (dollars)											
Halibut	-	-	-	-	-	-	-	$38,299.45	-	$10,845.14	$20,120.58
IFQ Sablefish	-	-	-	-	-	-	-	$18,227.60	-	-	$23,543.00
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	$12,401.50	-	$7,903.75	-	-	$111,056.57
Groundfish Jig	-	-	-	-	$4,762.80	$4,638.38	-	-	-	-	$4,124.00
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$0.00	$0.00	$0.00	$0.00	$4,762.80	$17,039.88	$0.00	$64,430.80	$0.00	$10,845.14	$158,844.15
Total in 2005 Constant Dollars	$0.00	$0.00	$0.00	$0.00	$5,583.28	$19,325.72	$0.00	$69,946.28	$0.00	$11,212.58	$158,844.15
Percentage of Estimated Gross Revenue											
Halibut	-	-	-	-	-	-	-	59.44%	-	100.00%	12.67%
IFQ Sablefish	-	-	-	-	-	-	-	28.29%	-	-	14.82%
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	72.78%	-	12.27%	-	-	69.92%
Groundfish Jig	-	-	-	-	100.00%	27.22%	-	-	-	-	2.60%
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	100.00%	100.00%	-	100.00%	-	100.00%	100.00%

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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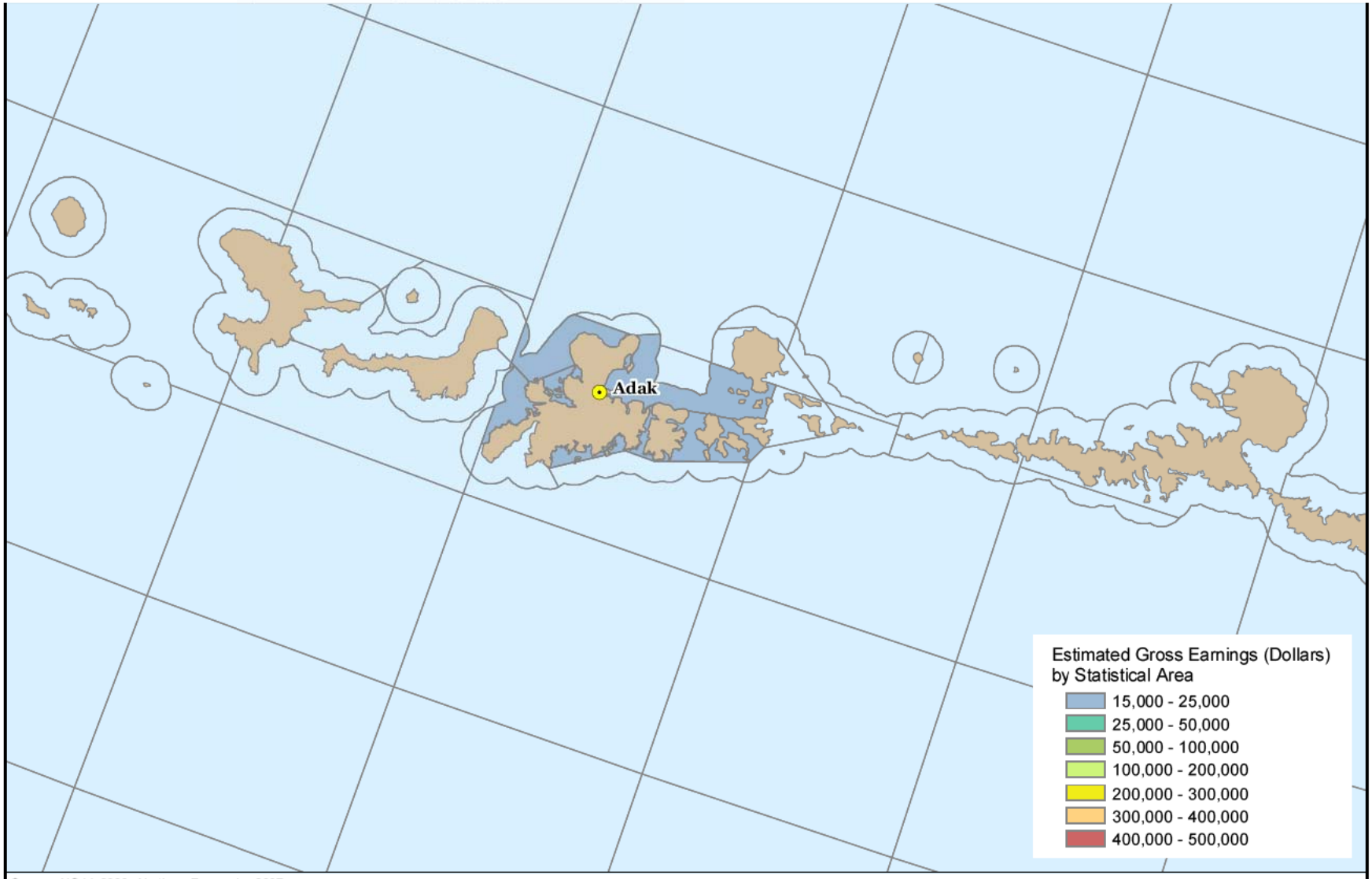
Path: P:\2006\06080403 Baseline Community Profiles\5GIS\MXD\Adak\Adak_groundfish_AG_02_05.mxd, 06/16/08, AugelloP



Source: NOAA 2003; Northern Economics 2007

30 15 0 30 Miles

Scale = 1:1,600,000 1 inch equals 30 miles

Figure ADAK-1
Commercial Groundfish Catch for Vessels Local to Adak, All Gear Types, 2002 - 2005

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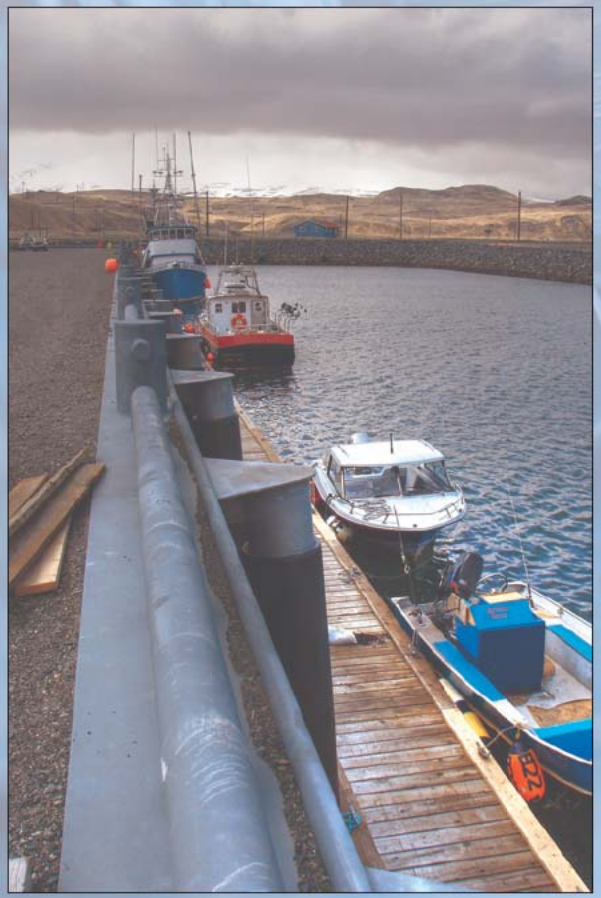
ADAK

PLATE
ADAK-12
HARVEST SECTOR

All: The local fleet of Adak



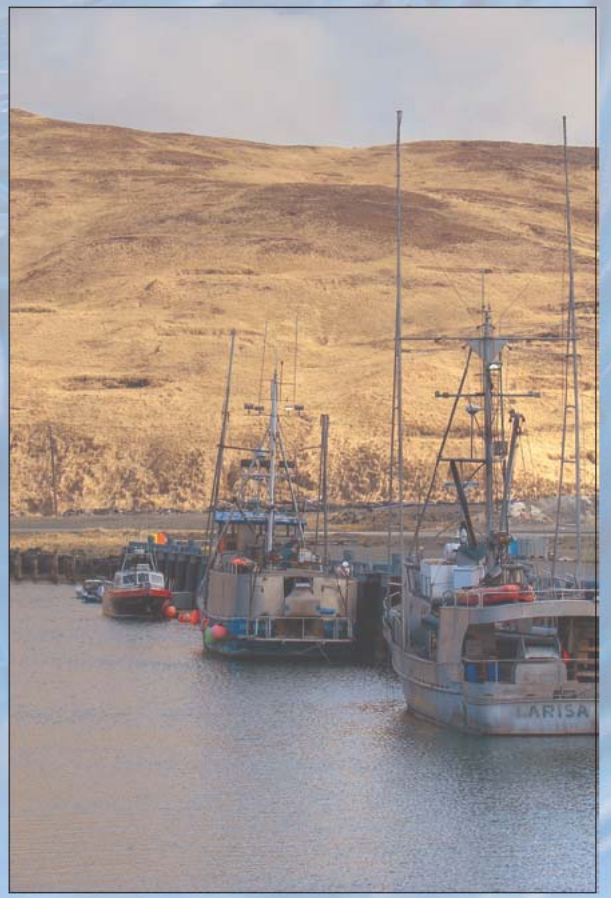


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PLATE
ADAK-13
HARVEST SECTOR

Top Left: *Julie Ana* waits for repair

Top Right: Two military-era tugs owned by an Adak resident

Bottom Left: *Larisa M* is moored at the small boat harbor

Bottom Right: *Homeward Bound* arrives at a Sweeper Cove pier

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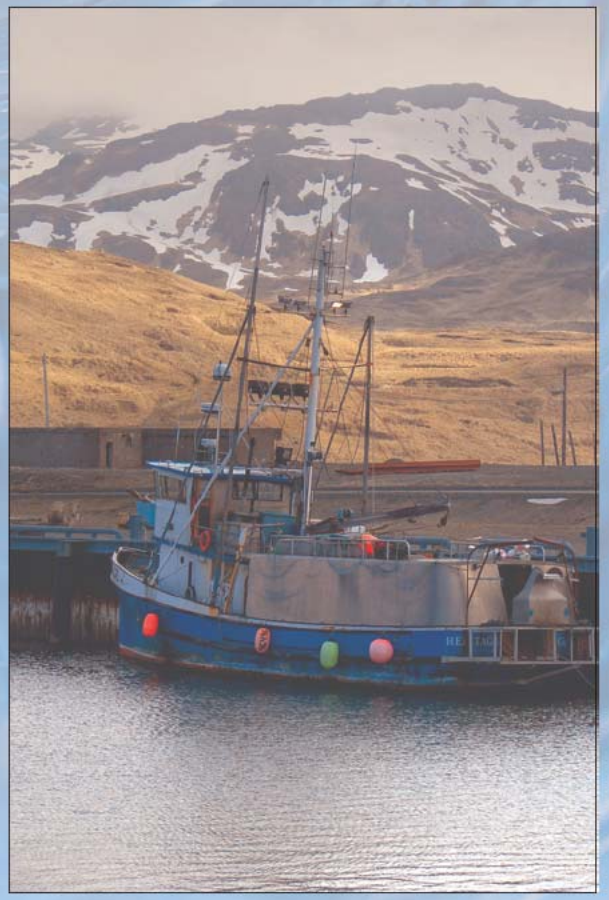
PLATE
ADAK-14
HARVEST SECTOR

Top: *Sofia Grace*, twin of *Julie Ana*, rests at the small boat harbor

Bottom Left: *Hercules*, a tug contracted for spill response, and *Homeward Bound* are docked at a Sweeper Cove pier

Bottom Right: *Heritage*, skippered by an Adak resident, is docked at the small boat harbor



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particularly when the price of cod "dropped from 50 cents to 18 cents per pound overnight." After learning about local fishery cycles by participating in them for a full year and then supplementing income with employment at the city, the processing plant, and odd jobs around the community, *Homeward Bound'*s owner had the vessel inspected, upgraded, and licensed to carry passengers 2001. Taking advantage of the knowledge gained of the area, tides, and currents during local commercial fishing, the vessel then was worked first as a pilot transfer boat for Alaska Marine pilots before expanding into the charter business. As a licensed charter vessel, business has derived from sight-seeing tourists, drop-off and pick-up service for hunters, tours for birdwatchers and ecotourists, and some transportation for State of Alaska personnel. While three-quarter-day and full-day fishing charters used to be offered, this niche fell by the wayside as the hunting-related business increased. Birding is also growing as a business component with a projected 24 days of charters during May 2007, the time of field interviews. Pilot transfers still are part of the business as well, with peak seasons occurring around A season, from mid-January through mid-April, and then again during crab season in November. Consistent with the common pattern of "piecing together a living" of Adak residents in general, the owner of *Homeward Bound* also works part-time for the AEC and in a variation on the "residents wearing many hats theme" is otherwise engaged in community life as the lay pastor of the Adak Christian Fellowship, an interdominational church that has been meeting in the community for several years.

Perhaps the only truly local vessel that regularly participates in Adak's commercial fishery in ways similar to those seen among local vessels in other regional commercial fishing hub communities (such as Sand Point) is *Larisa M*, a 56-foot longliner that engages in the halibut, black cod, and pacific cod fishery. Formerly based in Juneau, the owner of *Larisa M* began fishing around Adak in the early 1990s, but as it was still an active military facility, there were no opportunities for landing catch in the community. Despite the lack of a local processor, *Larisa M*'s owner reported that the economic opportunities were good during the derby fishery days, but he, like other current local residents, did not qualify for IFQ from his efforts in the area. Following years of fishing the area while still based in Southeast Alaska, the owner of *Larisa M* brought the vessel and moved full-time to Adak with his family in 2003. While *Larisa M* participates in the commercial fishery to the extent possible, and these efforts result in the main source of family income, this participation is reportedly not yet sufficient to exclusively support a family. As a result, the owner of *Larisa M,* like many Adak residents in other economic sectors, combines his primary occupation with a range of other activities in Adak to provide additional employment and/or supplement income, such that he estimates roughly two-thirds of his income derives from fishing and perhaps one-third from other activities, with substantial variability by season and year. Recent examples of participation in non-fishing activities include working construction for Boeing and participating in Bureau of Land Management surveys of local archaeological sites; he has also worked as deckhand on a trawl vessel owned by others during the February-March timeframe when other activities are slow (with April being the earliest that he has fished *Larisa M*). The Pacific cod fishery, which occurs in the spring before the black cod season, is a derby fishery with no IFQ restrictions, and *Larisa M* has reportedly been successful in this fishery. At the time of fieldwork (2007), given that no Adak residents had halibut or black cod IFQ, the owner of *Larisa M* has found it necessary to fish with an

outside IFQ owner on-board, typically from early July to mid-November.[18] The local halibut fishery is reportedly problematic from a local fleet perspective as there have been cuts in local area quota and it is difficult to get what is considered a good price in other areas from the local processor because of the relatively low volume. *Larisa M* has also supplemented commercial fisheries work with government survey work.

The final "local" vessel (as classified by residents) in Adak engaged directly in the commercial fishery is *Heritage*. While owned by an entity outside of Adak and based part-time in Ketchikan, *Heritage* has been skippered and crewed by Adak residents in the past. *Heritage* participates in the black cod fishery and also has taken halibut as bycatch. Typically splitting its fishing year between Adak and Southeast Alaska, this vessel spent the entire 2006-2007 year in Adak, with the current skipper of the vessel moving full-time to Adak in late 2006. Experienced local crew has been hard to find, however, with many residents in Adak inexperienced in commercial fishing. Additionally, at the time of fieldwork (2007), *Heritage* was in need of repair and upgrades to better take advantage of local fishing opportunities. The skipper of *Heritage* also fished Adak-based *Julia Ana* and *Sophia* during their first year of jigging for cod (2006), but both had mechanical problems their initial season, which cut short those activities. The skipper of *Heritage* also works on outside vessels working in the area, including two different vessels during 2006-2007 fishing for Pacific cod at different times of the year, and crewed on the local *Larisa M* for black cod during 2006-2007. He also works on a combination of shore-based construction and remodeling projects and "odd jobs" to make an overall living in the community.

While community members generally acknowledged that the local fishing grounds "are great," and that commercial fishing could be profitable, a number of community aspects are highlighted by residents when asked why a robust local fleet has not formed. One explanation relates to a lack of CDQ, which was not given to Adak at the beginning of the program due to the military nature of the community during the qualification years. Local opportunities have attracted a number of 58-foot vessels from Sand Point and King Cove to Adak seasonally, with a typical pattern having these vessels fish the A season around their home communities, before heading west to Adak in late February for the state and later federal water cod fisheries. In some cases if salmon fishing is slow in the east, vessels from Sand Point and King Cove will also come to the area to longline or pot or jig for cod, and there has been some participation in these opportunities by at least one vessel from Unalaska as well. Apparently, however, there have not been sufficient year-round opportunities to successfully attract these vessels to permanently relocate to Adak, with one challenge in some openings being larger boats taking the overall quota too quickly for the economics to work out for smaller vessels.

Beyond a lack of allocated quota in the community, whether it is for individuals (IFQ) or the community (CDQ), Adak has few of the support services found in some of the other profiled communities and, until recently, vessel owners had no choice but to dock at the former military harbor. While extensive, these facilities were designed for larger military vessels and are not well suited for a small boat fleet. The community has made improvements to an area of the

[18] Under current regulations, the IFQ owner must physically be on board the vessel while fishing unless they are an original IFQ issuee, own 20 percent of the vessel, and send the card to the skipper during fishing times. Under the latter type of arrangements, 50/50 splits of derived revenue are reportedly the norm, "but out here [Adak] it's negotiable."

harbor, however, creating a small boat harbor in an effort to attract more vessels to the area. Currently (2007) Phase I of the improvements has been completed, which included 563 feet of sheet pile dock with a breakwater as well as some rock work and dredging. Phase II, currently in the planning stage, would add a turning basin, an improved channel, and more rock work. Though not slated for construction in Phase II, floats would eventually be added to the facility. When complete, this project will result in approximately 4 acres of a 30-foot depth that would be out of all seas, although sheltering from all winds is not possible in this area of the harbor. It is the hope of some community residents that increased activity by the Department of Defense will bring a level of economic vitality and need for a wide range of facilities and support services, thereby accelerating harbor improvement construction as well as supporting the establishment of now-absent support services (welding, electrical, shipwright, diving, a marine hardware/gear supply store, etc.).

Environmental and logistical challenges are also identified by community residents as potential impediments to the growth of a small local fleet. For instance, seafloor topography, complex tidal patterns, variable prevailing winds, and unpredictable weather patterns can create challenges for people willing to relocate to Adak who have no prior knowledge of local conditions and little local knowledge of any significant time-depth from which to draw. The fisheries in this area are also logistically challenging, as the brown crab fishery is perceived to require a large vessel (over 100 feet) to be profitable. In 2007, there were plans to do some "prospecting" to see if a commercial salmon fishery would be viable in the area, but there are others in the community concerned about what this might do to subsistence and personal use/sport reliance on local stocks. Additionally, a local 500-ton herring (food and bait) quota provides some opportunity for the local fleet.

To support the growth of the local fishery, an Adak Native Fisherman's Association was formed in 2002. At present (2007) there are approximately nine members in the association. As an Alaska Native entity, it qualifies for some types of funding not available to non-Native entities, but membership is open to any resident that has been present in the community for at least a year, not just Alaska Natives.

Beyond the local vessels, there are also a number of vessels that have ongoing connections to the community, although they have outside ownership and may spend only a part of the year in the community. These are characterized by one of these vessel owners as "full-time fishermen with part-time ties to the community" as opposed to the local fleet composed of "part-time fishermen who live [full-time] in the community." According to plant management, many of these same boats have been delivering to Adak during the catcher vessel trawl cod season since the first years the local plant was open. For example, one such vessel, the *Muir Milach*, which has Adak as its "hailing port," has reportedly been delivering to Adak since 2000. In 2007, the *Muir Milach* made a total of 15 trips delivering to the community, according to its owner, who further reports that "the Adak cod season probably accounts for 75 percent of the vessel revenue … while the *Muir Milach* is probably one of the most dedicated Adak trawl boats, there are a number of others who are regulars year after year." According processing plant management, based on their compilation of fish ticket files they have retained, during the five year span from

2004 to 2008,[19] a total of 44 unique vessels made deliveries of cod to the plant. Of these, there was a core group of vessels with multi-year ties to the community. Of the 44 vessels making local deliveries, 4 vessels made deliveries all 5 years, 2 vessels made deliveries 4 out of 5 years, 5 vessels made deliveries 3 out of 5 years, and 10 vessels made deliveries 2 out of 5 years, and 23 vessels made deliveries in only 1 out of the 5 years. Over this same 5-year span, one vessel made more than 70 deliveries, 2 vessels made 50 or more deliveries, 3 vessels made 20 or more deliveries, 11 vessels made 10 or more deliveries, and 8 vessels made 5 or more deliveries. A total of 19 vessels made 4 or fewer deliveries (that is an average of less than one delivery per year) during this span.

3.3.2 Processing

Community Processor Quantitative Description

With only one processor in Adak, a quantitative description of processor activity cannot be reported due to confidentiality restrictions.

Community Processor Characterization

While the current processing operations on Adak have a relatively short history, processing did take place on the island at least sporadically during the time it was a military base. While systematic research on this topic has not been undertaken, according to interviews conducted in 2002, during the military era crab processing took place in the Finger Bay area. Reportedly, while these operations were some distance away from military housing and high activity areas, spouses of locally stationed servicemen occasionally worked at these operations to earn extra income (and to bring home crab) when processing operations found themselves short of personnel (as apparently did service personnel themselves, although less frequently). Reportedly, processors were either allowed or not allowed to operate locally in any given year depending on the policies of the individual Adak installation command personnel present at the time, but former servicemen interviewed recall processing taking place when they were in Adak in the late 1960s and early 1970s, and then again during fall seasons in the late 1970s. Given base security issues, processing personnel had very little interaction with the military community at Adak, although reportedly processors were sometimes allowed to visit the Post Exchange under escort. Crew transfers also required Navy escort at that time. One former serviceman reported that he earned income from processing operations in the 1970s by providing mail pickup and trash dumping services on a weekly basis.

At present (2007), there is a single shore processing plant in Adak, and despite a short history of operations it has seen a number of ownership changes since its inception. The plant was started by a partnership of two individuals who responded to an invitation for proposals from the Aleut Corporation. Operating as Adak Seafoods, the first processing took place in this plant in late February 1999. The plant continued to operate under this name until the summer of 2000. In mid-July 2000, Norquest became a predominant partner in the operation with one of the original

[19] 2008 A season data were provided during the document review period after fieldwork, so are more recent that other data in this document.

owners, and the plant did business in this manner until late July 2001. The individual still active from the original partnership took the plant back over for period of August through December 2001. In January 2002, Icicle Seafoods became a more-or-less equal partner in the operation, which operated as Adak Fisheries, LLC. In April 2004, the individual partner bought out Icicle Seafoods' interest in the operation, which was then picked up by Aleutian Spray. At the end of 2005, the individual owner bought out Aleutian Spray's interests. This individual currently (2007) holds a controlling interest in the company still operating as Adak Fisheries, LLC, with the balance held by three other individuals directly involved in plant-related operational activities. Despite all of these changes, a thread of continuity has been the fact that one of the two individuals who started the plant is still active in its ownership and operation.

The plant operates in four 150-foot by 180-foot leased bays in the "Blue Shed" building adjacent to Pier No. 5 on the north shore of Sweeper Cove at the south end of the main community area.[20] Over the past several years, operations have consolidated into this building. Although Adak Fisheries formerly leased cold storage space in a building just east of the Red Shed along Sea Wall Road, supplemented by the use of vans or containers stored adjacent to the processing facility, both for additional space and to help control utility costs, a dedicated cold storage facility was added to Bay #2 in the Blue Shed in late 2004, eliminating the need for additional cold storage facilities (outside of peak production season when typically freighters at dockside essentially function as supplemental cold storage until the load is completed and the freighter leaves the community). Processing takes place in both Bay #1 and Bay #2. Bay #3 is utilized as a shop as well as for fiber and non-refrigerated product storage. Bay #4 is used for pallet and salt storage. Adak Fisheries also leases outdoor yard space adjacent to the Blue Shed. Plates ADAK-15 and ADAK-16 show the processing facilities at Adak Fisheries.

In terms of an "annual round," activity at the plant is greatest from January through March, relatively quiet from April through June, and then the plant runs between one-third and one-half speed from July through September, before activity tapers off again from October into November. The plant is typically closed from November 15 through the beginning of the new year.

In terms of specific activities, 2007 was reportedly the first recent year in which significant processing took place prior to the end of January, due to a January 20 A season trawl opening that would otherwise typically not occur until early February. Activity builds through February, with March representing the best fishing month around Adak. From January through early February, approximately 60 processors are employed at the plant, with a peak of about 150 processors occurring around the first of March. The federal cod season normally ends around March 13 or 14, with a state cod season a few days later. April 1 begins the federal B season, which normally lasts about a week, after which most processors leave Adak.

According to an individual with ownership interest in the plant, particularly with the loss of the volume of crab seen in the years immediately preceding the implementation of BSAI crab rationalization in 2005 (with the loss being a direct result of crab rationalization itself, due to the

[20] There are 12 such bays in three similar buildings adjacent to Piers No. 3 and 5. The "Red Shed," farthest to the east, houses City transportation-related equipment and operations; and the "White Shed," the middle of the three, is used primarily for storage.

fact the plant did not have adequate crab processing history during the processor quota share allocation qualifying period), the A season cod is the main source of income for the plant (and raw fish tax revenue for the City of Adak), probably accounting for about 75 percent of annual plant revenue. In 2007, the plant reported having 30 vessels make a total of 144 deliveries which, according to this same individual with plant ownership interest, "overwhelms anything else that happens during the rest of the year, not just in terms of volume at the plant, but in terms of crew utilizing local businesses (the fuel dock, store, and bar); without A season cod, the plant does not survive …" Adak Fisheries provided a count of vessels making cod deliveries during the plant this time of year for the five year span from 2004 to 2008[21] (Table ADAK-16), with the data providing a sense of increase in the numbers of vessels and deliveries over time. According to plant management, a large part of the increase in vessels and deliveries is attributable to the smaller vessels that have come out to Adak for the state waters fishery.

Table ADAK-16. Adak Fisheries Reported Annual January through April Count of Cod Vessels and Deliveries, 2004-2008

Year	Count of Vessels	Count of Deliveries
2004	13	86
2005	8	48
2006	12	64
2007	30	144
2008	23	135

Source: Adapted from information provided by Adak Fisheries via e-mail, 5/2/08.

Beyond the processing crew that comes into the community for peak periods, between 7 and 10 plant employees live in the community on a year-round basis (but typically fill in with other employment during down times). A number of other local residents "help on and off" when additional labor is needed at the plant, especially for short periods of time.

In terms of crab processing at the plant, the BSAI crab rationalization program changed local operations. Although the plant did not qualify for quota based on processing history during the program qualifying years, the plant did process a locally significant amount of crab in the interval of years following the close of the qualifying period, but prior to the implementation of the rationalization program itself. Although a community enhancement feature of the rationalization program provided an initial allocation of 60,000 pounds of Western Aleutian Islands golden (brown) king crab processor quota to the plant and a 250,000-thousand pound Western Aleutian Islands golden king crab harvester community quota to the community of Adak (administered by the Adak Community Development Council, whose membership coincides with membership on the City Council), this level of allocation "turned the lights off on crab in the community" according to processor management. According to processor management, during the 2006 and 2008 seasons, one harvest vessel was able to fill both the Adak community harvesting quota and the input for the Adak Fisheries processor quota during

[21] 2008 data in this table were provided during the document review period after fieldwork, so are more recent that other data in this document.

ADAK

PLATE
ADAK-15
PROCESSING SECTOR

Top Left: Adak Fisheries processing plant exterior

Top Right: Adak Fisheries office

Bottom Left: Adak Fisheries processing machinery

Bottom Right: Conveyor belts inside Adak Fisheries

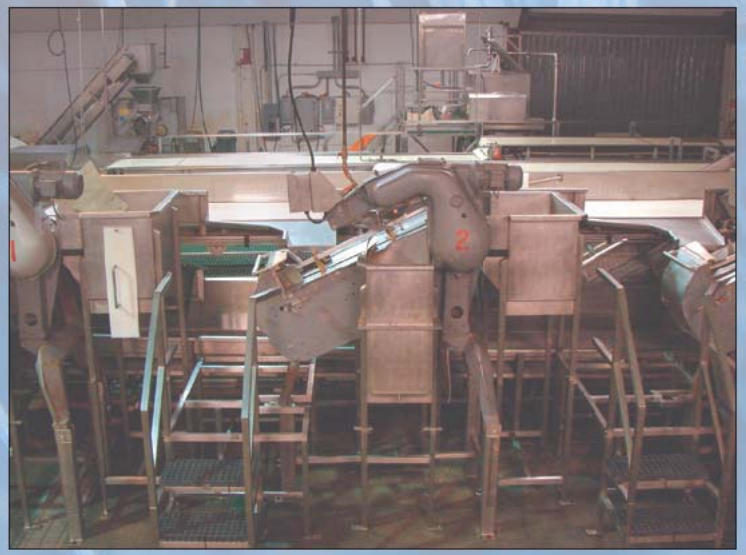

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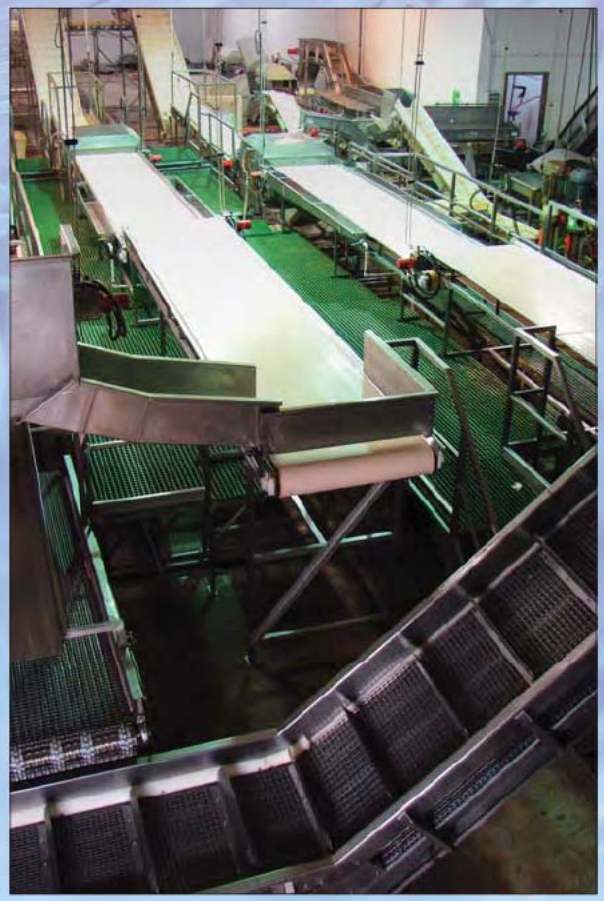
PLATE
ADAK-16
PROCESSING SECTOR

Top: Adak Fisheries mechanical shop

Bottom Left: Crab boiling tanks

Bottom Right: Processing conveyors



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the month of April, while in 2007 two vessels with common ownership filled both the Adak community harvesting quota and provided the input for the Adak Fisheries processor quota. Also according to plant management, the contract for harvesting the Adak community quota issued by the Adak Community Development Council also requires the recipient to deliver any other crab they harvest to Adak if they are legally able to do so.

A skeleton crew of approximately 25 to 30 processing workers are typically on site during this time, before the plant goes into a "dead time" in May, when approximately 6 line workers and 6 or so year-round office and engineering staff comprise the entirety of Adak's processing-related employment (with at least some of these individuals being absent from the community on vacation during this period). During the 2005/2006 crab season the plant did custom processing for one of the processing plants based in Unalaska along with the Adak community quota and their own processor quota, but according to plant management that level of processing was less than half the volume seen immediately pre-rationalization, and Adak Fisheries is attempting to gain additional agreements for custom processing for other entities. Additionally, over the first three years of the BSAI crab rationalization program there have been some straight transfers of western region designated IPQ (which makes up 50 percent of the total Western Aleutian Islands golden king crab fishery IPQ, with the other 50 percent not regionally designated) from a couple of processors based in Unalaska/Dutch Harbor to Adak Fisheries when it became apparent these processors were not going to be able to fill this IPQ, but Adak Fisheries is still subject to a 30 percent facility use cap (although there has been consideration of a proposal to change this cap for Adak within the Western Aleutian Islands golden king crab fishery).

Halibut and black cod processing is "sprinkled throughout the year" at the Adak Fisheries plant. Halibut processing has recently declined at the plant, however, with current (2007) area halibut quotas less than half of what was seen as recently as 2 years prior. As a result of the smaller quotas, the local halibut quota can be captured as a one-trip fishery for outside vessels, meaning that these vessels are unlikely to deliver in Adak. According the local plant management, only two full-time local residents actually hold local area halibut quota (and thus would be likely to deliver to the plant under most any conditions). Black cod processing is reportedly down as well, despite relatively steady quotas. During slow times at the plant the skeleton crew described above handles processing, supplemented with a few other local residents as needed. In general, the black cod and halibut boats that do call on the community are characterized as typically buying fuel and groceries in the community and having their crews spend more time in the community than is typical for larger vessels. This fleet has been characterized as generating lower profits for the plant than the larger vessel fleet, but relatively more economic activity in the community outside of the landing transactions themselves. This is reportedly true for this fleet in comparison to the smaller scale trawl and pot fleet as well.

In 2006 there was, for the first time, a state water cod opening in early June that drew a few pot boats to the area, but in a typical year cod activity picks up again in late August, reaching a peak in September and then running through late November. There is also about 10 days of local processing of trawl caught Pacific Ocean perch beginning around July 1. Approximately 25 processors will be employed during the late summer, performing maintenance, cleanup, and various projects in addition to actual processing. In 2006, Adak Fisheries brought in two jig boats owned by the plant on an experimental basis, but both were damaged during transit to the

community so the results were lower than expectations. The summer season at the plant is described as more relaxed than the winter cod season when not only activity levels are high but the weather is also often bad.

Adak Fisheries processing workers are not housed in group quarters with a processor-provided galley as is common in other regional communities. Rather, Adak Fisheries houses its workers in 35 residential housing units leased on a long-term basis through the AEC and 13 units leased through individual owners. During peak times, 8 to 10 processors may occupy a given housing unit, with two double bunks in each of the two main bedrooms. These residential units are furnished with cooking facilities and, except during peak periods, Adak Fisheries provides its workers with a food allowance. During peak periods, meals are provided by contract with the Aleutian Sports Bar and Grill and served at both the VFW building (where workers are bused for breakfast and dinner coinciding with shift changes) and at the plant (for lunches and midnight meals during processing). Workers are recruited by word of mouth as well as through a job service in Anchorage, and are drawn from around the world. The plant typically pays worker airfares round-trip from Anchorage, but may pay for returns to the west coast of the lower 48 states for returning workers. During peak periods, 12-hour shifts are common.

Adak Fisheries leases the east side of Pier 5, which has been fitted with a pump and crane for offloads, from the AEC and occasionally uses the west side of the pier as well. For 2 months during the early 2007 cod season, a Russian tramper[22] was continuously moored to the pier, and daily transfers were made from the plant to the freighter, with the freighter acting as additional cold storage capacity for the plant.

In terms of the product mix produced by the plant, head and gut cod is a core product. Other cod products include cod faces, minced sugar salted roe, and frozen roe for the Asian export. Cod stomachs and livers are produced with the season slows and future plans include installing an oil extraction machine (scheduled for late 2007). Additionally, the plant currently (2007) processes crab, black cod, and halibut and is in the process of installing a pollock line, in part to take advantage of the Aleutian Islands pollock fishery allocation that was made to the Aleut Corporation for the economic benefit of Adak (and which is included as part of the facility lease agreement between Adak Fisheries and the AEC).

According to Adak Fisheries management, the plant to date has processed "a dribble" of Aleutian Islands pollock since the 2005 implementation of the Aleut Corporation set aside. With critical habitat issues constraining the fishery, the Aleut Corporation got no response to their initial invitation to catcher vessels harvest the quota and deliver it royalty-free to Adak in 2005, according to local plant management, and very little (under 100 tons) was harvested and processed at sea. In 2006, a survey and 1,000 tons maximum quota experimental fishery was conducted within critical habitat areas, and nearly all of this was reportedly harvested and delivered to the Adak shore plant. In 2007, an expanded survey and an approximately 3,000 ton maximum quota experimental fishery was planned, but reportedly only about one-third of the potential harvest was taken (although what

[22] "Tramper" is a common slang term in the region, referring to a transport vessel (also known commonly known as a "freighter") that takes deliveries of fisheries product offshore or onshore and ships the product directly to market or secondary processing destinations, which are often foreign ports.

was taken was delivered to Adak for processing). In sum, under the first three years of the program, less than 2,200 tons of Aleutian Island pollock, all harvested under experimental fisheries, were delivered to the Adak plant, according to Adak Fisheries management. In 2008 (according to input received from Adak Fisheries management during the review of this document), there was no quota associated with a third experimental survey funded by the NPRB, but approximately 500 tons of pollock were taken from a relatively narrow sliver of non-critical habitat area between two radii-defined exclusion areas (known locally as the "butt cheeks"). This, according to Adak Fisheries plant management, was the first Aleutian Islands pollock taken outside of critical habitat (and under a non-experimental fishery) delivered to Adak under the Aleut Corporation allocation designated for the benefit of the community.

3.3.3 Support Services

Prior to land transfer, virtually all of the facilities on the northern part of Adak Island, which encompassed the city of Adak, were still owned by the Navy. Private businesses that wished to operate in these facilities would typically sublease facilities from the AEC. (Apparently the only exception to this generalization was the Veterans of Foreign Wars [VFW] hall, which leased its facility directly from the Navy.) According to some business owners, this arrangement had served to slow support business development in the community because, at the Navy's direction, all leases had provisions for rapid termination should the land transfer process not take place as anticipated, making investment in the new community even more of a risk than would otherwise have been the case. Additionally, there was some uncertainty about the ultimate ownership of lands in the community, such as whether businesses would be able to purchase buildings but would be restricted to leasing lands from the Aleut Corporation rather than being able to purchase them, and so on. The same held true for housing, with a concern that land could not be purchased with the housing units.

Upon completion of the land transfer, as described above, the Aleut Corporation took over the vast majority of the property. According to the AEC, the initial transition to a civilian community took place in phases as the Aleut Corporation and it subsidiaries took over support service infrastructure, starting with fueling and then moving into housing, followed by port facilities. With the notable exception of the airport and city properties, the AEC leases housing (through AHA) and former military buildings to residents and local business owners. This includes harbor space and port facilities. Local entrepreneurs interested in starting a business must negotiate rental agreements with the AEC for space. While Adak is in the process of developing support service capabilities for the fishing fleet, one challenge the community faces is that, according to local business owners, vessels that have fished in the Adak area in past years are used to being self-sufficient and may not realize that supplies and services are now available locally or, even if they do have an awareness of availability, still have established relationships elsewhere. Plates ADAK-17, ADAK-18, ADAK-19, ADAK-20, ADAK-21, and ADAK-22 show a few of the support services and community facilities present in Adak.

Aviation Support

Adak's aviation infrastructure also benefits from vestiges of its military history. Its airport, Mitchell Field, is the largest airport in the Aleutians with two runways (7,605 feet and 7,790

feet) and is equipped with instrument flight rules (IFR) electronic navigation and weather reporting systems. Support features include control tower and terminal buildings, paved taxiways and aircraft parking areas, maintenance hangars, and a fire and crash station. Following a transition period during which the airport was managed by the ARC, the Adak airport has been managed by the state Department of Transportation, which has three local employees in Adak providing management, maintenance, and crash/fire/rescue (CFR) services. (Trained airport CFR personnel also are involved in, and represent a significant resource to, the local volunteer fire department, whose equipment is also located near the airport.) Aviation weather services are provided on a contract basis by a local resident.

Currently (2007) scheduled air carrier service to Adak is provided by Alaska Airlines, with two flights per week (Sundays and Thursdays) carrying mail, freight, and passengers year-round. Passenger service is relatively expensive compared to many other destinations within Alaska, with current (2007) Anchorage to Adak round trip tickets costing approximately $1,200. According to airport staff, Northern Air Cargo makes chartered flights to Adak on a nonsheduled basis when Adak Fisheries or Boeing (an SBX project contractor) needs logistical support. No scheduled cargo carriers serve Adak, although several air cargo companies also make Adak a refueling destination on their flights between Alaska, Eastern Russia, and Sakhalin Island. Other passenger planes flying between Eastern Russia and Japan also make refueling stops in Adak, although these passenger planes are generally smaller than the large Alaska Airlines passenger planes and cargo planes that land in Adak. A local enterprise, Adak Handlers, supplies a total of seven part-time personnel to Alaska Airlines to staff ticket counter, baggage, and cargo handling functions in Adak on a contract basis. As with many other local enterprises, ownership interest in Adak Handlers overlaps with ownership interests in other local entrepreneurial businesses (and is supplemented by additional unrelated direct employment income).

Passengers on the twice-weekly Alaska Airlines flight include a wide range of tourists and professionals. Summer is still considered "contractor season" to some degree, as environmental cleanup and remediation personnel still come to Adak in search of unexploded ordnance and other environmental dangers. Current contracting firms for environmental remediation/ unexploded ordnance and marine monitoring include USA Environmental and Tetra Tech, respectively. Bird watchers are also relatively common in the summer months, with a few organized bird-watching tours regularly visiting the island. Caribou hunters are common from late summer into autumn, either alone or accompanied by an outfitter or guide. Fishing crews are also flown in for vessel crew transfers, which may take place in Adak rather than Dutch Harbor due to more reliable air service and may be combined with a refueling stop at the local fuel dock. Finally, it should be noted that an undisclosed number of Department of Defense and Department of Homeland Security staff visit Adak on a semi-regular basis throughout the year in support of the SBX project and to meet with SBX-related contractors.

Harbor Facilities

Constructed to accommodate U.S. Navy vessels, the main port facilities on Adak, consisting of three deep water piers and associated facilities, can support a wide variety of civilian vessels. The Aleut Corporation owns the port facilities, and the AEC manages the port and employs the Harbormaster. Research ships, station work vessels, cruise ships, and fishing vessels use the port

ADAK

PLATE
ADAK-17
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Adak central community building and school

Top Right: Community religious gathering space

Bottom Left: Adak library

Bottom Right: Gym facilities

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PLATE
ADAK-18
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Hiking trails at Clam Lagoon

Top Right: Airport crash/fire/rescue response emergency response vehicle

Bottom Left: Snow plow truck

Bottom Right: Navy surplus fire engine, now used by the community

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PLATE
ADAK-19
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Adak airport terminal

Top Right: Harbormaster office

Bottom Left: Crab pot storage

Bottom Right: Gear storage

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PLATE
ADAK-20
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Proprietor of Candel's Café

Top Right: Exterior of Aleutian Sports Bar and Grill

Bottom Left: Tourists and community members eating at Candel's Café

Bottom Right: Interior of Aleutian Sports Bar and Grill

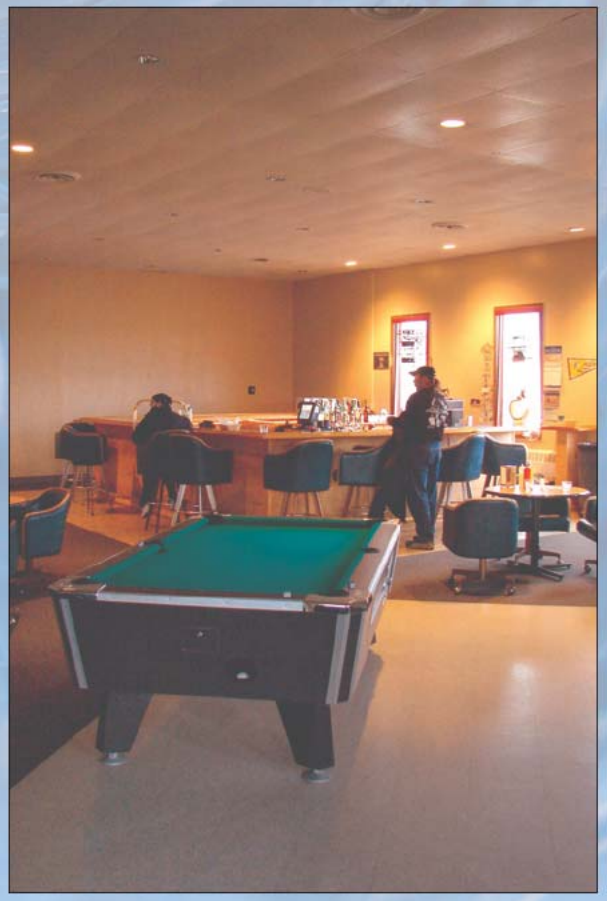

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PLATE
ADAK-21
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Proprietor of the Bake and Tackle

Top Right: Exterior of Rick's Liquor

Bottom Left: Freshly baked cinnamon rolls at the Bake and Tackle

Bottom Right: Proprietor of Rick's Liquor

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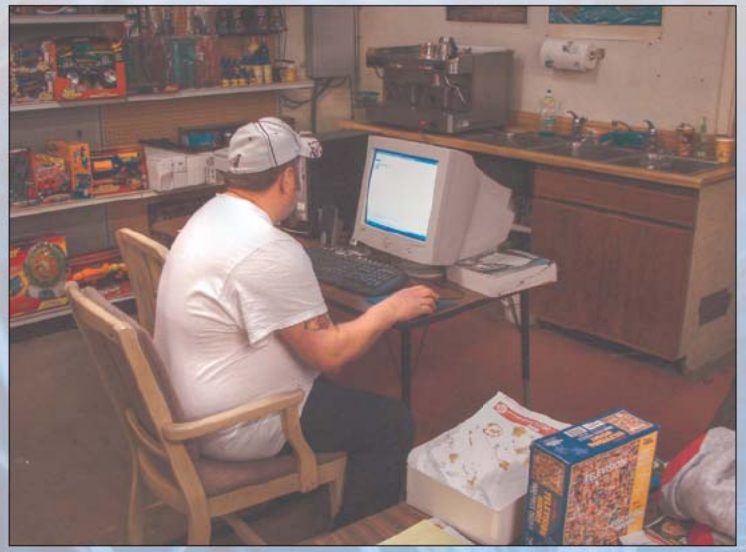
PLATE
ADAK-22
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Customer using internet access at the Adak General Store

Top Right: Hardware inventory at the Adak General Store

Bottom: Fuel lines out to the Adak fuel dock



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facilities at Sweeper Cove and Kuluk Bay. At-sea processors have used the port for transfer of product as well as a supply stop, and this has generated opportunities for shippers, but typically transfers from at-sea processors to trampers occur in Kuluk Bay outside of the Adak city limits, limiting the city revenue that would otherwise be generated by this activity. Currently (2007), there are two working general-use piers in Adak as well as a fuel dock with an adjacent tank farm. Known as Pier 3 and Pier 5 (with these designations being hold-over names from the military era), the two general-use piers are located immediately south of the main inhabited portion of town in close proximity to Adak Fisheries and three large storage buildings (known locally as "sheds"). Pier 5, the more frequently used pier, is constructed of concrete and one side is leased to Adak Fisheries. The other side of Pier 5 can be used for visiting vessels, including the occasional cruise ship or tramper. During processing seasons, Pier 5 is not only used to offload catch, it is also used to move freighters for extended periods of time to take on product from the processor.

Pier 3, located to the east of Pier 5, is wooden and is currently used for overflow. At the time of fieldwork (2007), Pier 3 was being used by the tug *Hercules*, described separately below.

While not suitable for longer-term moorage of small vessels, it is relatively common for these vessels to tie up to Pier 3 (or tie up to a vessel already in port) for convenience on a short-term basis. With the main harbor conveniently closer to the main center of town, and providing easy vehicular access, some small vessels dock at Pier 3 temporarily to transfer supplies, pick up crew, or exchange information. As the main port facilities of Adak are not suitable for actually homeporting small vessels, however, the City of Adak is in the process of constructing a small boat harbor to the southwest corner of Sweeper Cove, west of the main harbor facilities and south of the VFW building and the fuel dock. Although this location does not shelter vessels well from the wind, it does provide protection from waves and allows for easy on-off access.

Two Navy surplus tugs are also ported at the harbor, although they are not currently (2007) tied to a designated pier and are instead located east of Pier 3 near a small wooden berth. These Navy surplus tugs were sold to a local resident as-is and are currently being repaired to a level of seaworthiness, with one of the tugs generally providing replacement parts for the other. If repairs are successful, there is hope that the operational former-Navy tug would provide a more regular barge service to the island.

Services at the harbor include wharfage of bulk cargo, fishing gear, and containers with storage east of the central "White Shed" and north of Pier 3. Line handling and trash disposal are also services provided by the harbor. Treated water is free, although individual hookups are not available and water is provided by hose from a nearby hydrant. Shorepower was not available as of 2007, but is planned.

Marine and Other Fuel Sales

Adak has become the main marine refueling station for the adjacent portion of the North Pacific with fuel sales picking up in direct relation to the easing of Navy restrictions on access to the island. The island's underground tank farm has a total storage capacity of approximately 22 million gallons of marine diesel, bunker grade fuel, gasoline, and jet fuel. According to local

staff, the ongoing basic storage capacity is around 2 to 4 million gallons at any one time. Local fuel services are provided by Adak Fuels, which is owned in turn by the AEC. Currently (2007), there are four full-time employees who work out of the fuel facility: one manager, one mechanic, and two drivers. A fifth AEC full-time employee, the harbormaster, manages harbor operations out of a separate building near the docks closest to Adak Fisheries. Although the AEC formerly was engaged in a number of different enterprises and still rents out vehicles in the community, it is now (2007) reportedly focusing primarily on fuel sales and is continuing the process of divesting itself of direct operational involvement with what are considered to be more tangential ventures. The primary categories of fuel sales are marine fuels, aviation fuel, heating, vehicle fuel, and fuel for the city generator. Marine fuel sales encompass all sectors of fishing vessels operating in the area, including catcher processors, trawlers, longliners, and crab vessels. During the winter of 2006-2007 sales were also made to *Dove*, the support vessel for the testing and installation of the SBX radar system. According to the terminal manager, approximately 70 to 80 percent of fuel sales are fishing related.

Generally, an annual pattern can be thought of as starting in December when factory trawlers transfer product outside of the harbor to waiting trampers and then come in to refuel. These vessels are characterized as typically being in port for 2 to 8 hours at the most. In addition to fueling, three of the smaller factory trawlers rent storage space in the White Shed. A number of factory trawlers also do crew changes and obtain freight service in the community, types of activities that have reportedly increased in Adak since Alaska Airlines has discontinued jet service to Unalaska/Dutch Harbor. These activities can last until March and vessels from other sectors coming in to fuel during this time can include longliners participating in state water fisheries and trawlers. Halibut longlining vessels are more prevalent in the spring, according to fuel dock staff, with activity lasting throughout the summer and into September. Crabbing vessels arrive in autumn, but quickly disappear once they achieve their respective quotas. Trawling vessels, including factory trawlers, are also common during the late autumn and winter months. Among the harvest fleet, most sales are reported to be to Seattle and Unalaska/Dutch Harbor-based vessels.

While the shore processor itself is on the main power grid, not all of its operations have created demand from the grid. For example, it has at times provided for some of its cold storage capacity through the use of vans or containers with their own generating capabilities. While offshore catcher-processor and mothership entities do call on the community, there is reportedly relatively few fuel sales to that component of the fishery compared to their overall presence. In addition to fuel sales, the Adak facility also stocks oil and filters for vessels, and it can take used oil from vessels as well.

In addition to marine activity, fuel sales are buttressed by automobile and aviation sales. The fuel farm also supports the city generator through sales to the city.

Vehicle and Equipment Rental/General Services

Adak Development and Construction is another service business in the community. It features vehicle and equipment rentals to the public and provides road maintenance and garbage collection on a contract basis for the City of Adak. Owned by two individuals, this business

employs one additional full-time person and one part-time person. The business also functions as the city shop, maintaining city equipment 4 hours each work day.

Vessel Support Businesses

At present (2007) there are no specific vessel fabrication, maintenance, or repair businesses in Adak, nor certified divers doing in-water vessel repair work. In the early 2000s, an individual operating out of a former military machine shop offered machining, welding, and fabrication services in Adak. While this enterprise is no longer in business, the shop is still extant and it remains the only tool and machine shop west of Unalaska/Dutch Harbor, albeit an inactive one. With the discontinuation of this business, there is also no dedicated welding operation in Adak, but there are individuals in the community who can provide welding or fabrication services for small jobs or in an emergency, including personnel at the seafood processing plant. Such moonlighting is common in the community where individuals with specialized skills are in short supply and a variety of fishery-related support services are needed. Locals speak of a level of common knowledge within the community as to who can do what and his/her level of competence. For example, one of the electricians for the City sometimes is called upon for help at the processing plant, and one of the individuals who works in the transportation department at the City is sometimes called upon to do mechanical/diesel and hydraulics work (with the latter being a particularly valuable resource, as the City has the only facility in the community that can press hydraulic fittings). Otherwise, there is no hydraulics or electronics support in the community and it is reportedly not uncommon for vessel engineers to go between boats to search for parts and provide mutual assistance. During busy fishing seasons, one outside support firm has flown out an individual to help for a month or two, but otherwise fleet support services are handled primarily by the individuals or enterprises mentioned. Adak Fisheries will also bring technical specialists to the community on an episodic basis when needed. The AEC provides additional vessel support in the form of renting its crane out to certified operators and leasing storage space at the harbor (with 2007 rates being $0.25 per square foot for indoor storage and $0.04 per square foot for outdoor storage).

A range of other vessel support services is provided by R&V Enterprises (an entity described in more detail in the next section). Among a number of other ventures, R&V Enterprises recently purchased the remaining assets of Zac's Enterprises, including two forklifts and a 50-ton crawler crane that can be used to haul small vessels (but that are currently [2007] in need of overhaul or replacement). Historically, Zac's provided crab pot hauling and stacking, boat watch services, the facilitation of crew transfers for factory trawler vessels, and expediting services (primarily for at-sea catcher/processors). Today (2007), R&V Enterprises provides these services, with the addition of vessel mooring, some contract work for the Navy, and food transfers and bulk purchases (interfacing directly with the Bake and Tackle, another R&V Enterprises entity also described in the next section), garbage service for vessels, and providing a limited taxi service for visiting vessel crew into the main town center. Demand for mooring services reportedly increases substantially when the SBX project support vessel *Dove* is in the community, as it may require two or three tie-ups per day. If additional equipment is needed, such as a forklift with larger capacity than the surplus military forklifts that R&V Enterprises is currently operating, an arrangement can be made with Boeing to utilize their heavier forklift; the same holds true for a crane owned by the City. These types of informal resource sharing arrangements between public

and private entities are the norm on Adak where a limited number of people and enterprises service a wide range of needs over an annual cycle with marked peaks and valleys of activity.

The tug boat *Hercules* owned by Dunlap Towing, leased to the AEC, is currently (2007) operating in Adak. Homeported in Everett, Washington, *Hercules* operates with a crew of two while in the harbor and five when at sea. It is stationed in Adak for two main purposes: to support operations at the fuel dock and to provide support for the construction of the SBX radar system. Fuel dock operations are supported through assisting the oil tanker *Orinda* that supplies the facility two to three times per year as well as other fuel barges out of Seward. *Hercules* also provides oil spill response capability for the fuel dock and its operations. The construction of the SBX radar system is provided through logistical and construction support and specifically includes providing assistance to *Dove,* a supply vessel associated with the SBX project. *Hercules* is also available for other hire during down times.

It is a truism among Adak business owners who depend at least in part on fishery-related revenues that "when the [processing] plant does well, we do well" and that when there are periods of inactivity they are faced with a situation of "no plant, no boats." There is an overlap of base of these businesses between supporting fishing and with supporting the activities of "contractor season" but according to local business owners, the economic benefits of base closure/cleanup-related contracting have diminished rapidly over the past few years and are available only from late June through late August or early September.

General and Hardware/Marine Supply Stores

The local general store, known as the Adak General Store, was operated as an enterprise of the Tigara Corporation (an Alaska Native village corporation entity based in Point Hope, on the North Slope) during the land transfer period. In 2004, however, the Tigara Corporation sold the business to the AEC, which in turn sold it to two local Adak residents. The Adak General Store leases a former community housing administration and support building in the Sandy Cove housing area from the AEC. As of 2007, according to local staff, the store had been in operation for approximately 7 years. It is the only true general store in the community and carries a wide variety of products including canned goods, dry goods, frozen items, a small selection of home improvement and automotive supplies, a limited quantity of ship and fishing supplies, clothes, electronics, sporting goods, toys, hardware, and furniture. An estimated 50 percent of the sales, however, are attributed to groceries alone.

According to the store manager, in the early 2000s, the Adak General Store derived approximately 90 percent of its business from the fishing industry and about 10 percent from local year-round residents. The current (2007) breakdown in business is very different, however, with about 25 percent of sales attributed directly to supplying fishing vessels. Store sales to vessels are sometimes facilitated through the local processor in the form of a purchase order that is then settled out of the vessel's delivery of catch to the processor. The store will take orders from the dock and deliver orders to the dock to facilitate this business as well. The store does not receive business from all vessels associated with the community, as a number of the vessels that harvest or deliver locally will resupply in Unalaska/Dutch Harbor potentially as a result of several factors, including established business relationships (and/or other operating cost/benefit

factors, such as fuel prices and fish prices). Other upticks in business are seen when U.S. Coast Guard vessels call on the community, but these tend to be incidental items.

In addition to sales to vessels calling on the community, the store sees a considerable amount of fishery-related business from processing workers. Unlike most other communities, processing workers on Adak do not eat in company mess facilities or eat company-supplied meals except during limited peak seasons, and so patronize the local stores for basic foodstuffs on a regular basis. Although workers do bring or ship in some staples, the influx of around 100 processors during the first quarter of the year, each with a weekly food stipend, represents a significant increase in business at the store. Up until the recent past, processing workers would run a tab at the store against their food allowance, but this practice has been more recently discontinued in favor of cash transactions. Most permanent residents of the community, however, do have a tab at the store that is then settled on a monthly basis. The store manager has previously estimated that roughly 60 percent of total business for the year was seen in the first quarter of the year when fisheries activities are at their peak. Otherwise, activity in winter has been historically slow with business picking up in the spring and summer, although this most recent year (2006-2007) did not follow this pattern and the store had an active winter.

There is some sales increase with the additional personnel in the community during "contractor season" but this is reported to be relatively minor as these firms and individual employees apparently ship in a great deal of their own food and equipment. Similar to the situation with fishing vessels, contracting firms working locally also typically set up a charge system through their main office, authoring locally based teams to charge at the store. Relatively little business reportedly derives from birders, hunters, and other tourists to the community, outside of souvenir sales, although the increase in hunting associated with a larger-scale charter vessel operation in 2006 did result in some additional activity.

Among challenges faced by the store, as reported by the manager, is the lack of frequent, reliable barge service and a forced reliance on Alaska Airlines for cargo. This results in stocking and cost issues. For the store to be able to service vessels, plans must be made far in advance and additional freezer space leased from the AEC to ensure adequate inventory on hand. Barge space must also be reserved for stock containing what the airline considers hazardous materials or items under pressure. Weight requirements and cargo versus passenger priorities reportedly prevent some air cargo from reaching Adak in a timely manner as it is not uncommon to have freight bumped at the intermediate stop of King Salmon on the way out from Anchorage, with frozen foods, dairy, and fresh produce particularly challenging to keep stocked due to its more immediate perishability if delayed. As a result, the store tends to order fruits and vegetables that have longer rather than shorter shelf lives, which impacts the overall range of offerings. Food that arrives in Adak past its prime is sometimes sold at a discount or given freely away. Even with Alaska Airlines' reduced rate for food (37 to 41 cents per pound in 2007, as compared to $1.41 for other goods), other challenges in the recent past have been a reliable power supply, with concerns that an interruption of service would result in the loss of most of the store's perishable inventory.

In addition to groceries and other supplies, the Adak General Store also offers a number of services to local community members and visitors. Chief among these are a public shower, a

washer and dryer, fax machine, money transfer, and a pay-as-you-go internet connection, all of which, along with other services offered in the community, such as the post office, serve to attract fishermen into the community when they are making calls at the processor or at the fuel dock. According to the owners, even personnel on the island who bring their own groceries (e.g., contractors, vessel crew members, government officials, outfitted hunters) will come into the Adak General Store for small items like bottled water or dry goods and to use the shower, washer, or internet. Future plans for the Adak General Store include the possible establishment of an attached restaurant catering to the breakfast and lunch set.

Employment at the Adak General Store has been limited to some degree by a lack of available, reliable staff—especially during peak activity periods—with the store in 2007 typically operated full-time by the two owners throughout the year regardless of level of business activity, which represents an increase over one full-time and one part-time position of the previous year. Following a typical Adak pattern of employment and income diversification, however, despite being "full-time" at the store, one of the two store owners also assists with baggage operations at the airport (as one of two forklift operators certified to work near aircraft), provides monitoring for the U.S. Geological Survey (USGS), and does building checks for General Communications Incorporated (GCI). Prior to purchasing the store this couple was involved in other businesses in the community, including managing the Hotel Adak prior to the AHA assuming that responsibility.

What was once the only restaurant in the community during the land transfer era, the Bake and Tackle has transformed itself into Adak's bakery and second general store (dropping the restaurant function out of the business offering as, in the words of one of the owners, "we got rid of the restaurant because it took too much time"). In its former incarnation as a restaurant with a sideline of fishing gear sales, the Bake and Tackle was housed in the former Navy base McDonald's restaurant building. Currently (2007), however, the Bake and Tackle is located in the old high school building, which acts as a central community hub and also houses the city offices, clinic, AHA office, school, police station, video store, and a restaurant. In its present configuration, the Bake and Tackle supplements its bakery sales with a sideline of fishing gear sales, but beyond that, it now represents an alternative to the Adak General Store through the offering a limited supply of dry goods, cleaning supplies, frozen foods, and snacks. According to one of its owners, the Bake and Tackle store is not as well stocked as the Adak General Store, but it competes with lower prices on the more limited selections it does offer. The bakery portion of the operation offers fresh baked goods on a daily basis, including a variety of breads, muffins, cookies, and rolls depending on day and availability of ingredients. Like the Adak General Store, local residents, processor personnel, vessel crew, contractors, and other visitors buy groceries from the Bake and Tackle. In contrast to the Adak General Store, however, processor personnel usually have standing tabs at the Bake and Tackle that are invoiced to Adak Fisheries against the processing worker's weekly food allowance on a regular basis. According to one of its owners, during the busy commercial fishing season, approximately $1,000 a week can come in as a direct result of processor and vessel crew business. Describing the importance of commercial fishing to the local economy, one of the owners of the Bake and Tackle explained, "Every year I wonder what the plant [Adak Fisheries] is going to do because it makes such a difference."

The Bake and Tackle is but one facet of R&V Enterprises, a collection of small businesses owned and operated by a local couple. In addition to the vessel support services mentioned above, plus the Bake and Tackle, R&V Enterprises also manages Island Cleaners, a domestic cleaning business. While there is not enough business to support a full-time effort, Island Cleaners recently secured a cleaning and custodial contract with Manson Construction, a contractor on the SBX radar project, for weekly maid service and carpet cleaning in their rented housing units. Island Cleaners also cleans FAA housing on an as-needed basis.

The various R&V Enterprises businesses are staffed by the same couple, with some part-time help at the Bake and Tackle to manage cargo and inventory from the airport and in the store during the busy season. In a variation on the common Adak pattern of entrepreneurial, employment, and income diversification, one of the owners of R&V Enterprises also has part-time employment at the clinic, essentially job-sharing a position with a sibling, an individual who in turn also helps part-time at the Bake and Tackle and other R&V Enterprise businesses. R&V Enterprises has four steady employees, including the two owners (full-time) and two part-time, one of whom is a family member. During peak periods, the business has had up to 10 employees.

Alaska Native Claims Settlement Act Corporations

As noted previously, Adak is not an ANCSA community and thus does not have a local village corporation; however, regional ANCSA entities are central to life in the community. As the manager of the extensive local holdings of the regional Aleut Corporation, the AEC (itself a subsidiary of the Aleut Corporation) is currently pursuing a strategic business approach of providing the larger community support service building blocks, such as fisheries development, fuel services, and port services, with the goal of providing a foundation or opportunities for the establishment of other fishing, transportation, and support businesses in the community to help round out the local economy. The infrastructure inventory managed by the AEC represents a very large asset for the community, allowing businesses to not have to start from scratch when coming to Adak. For example, Adak Fisheries, rather than having to engage in extensive construction, leases bays in the Blue Shed for processing and space in the White Shed for storage, along with pier space and a yard next to the Blue Shed from the AEC. The harbormaster employed by the AEC is the only AEC employee associated with harbor operations (exclusive of the employees of Adak Fuels, which is run as its own operation, and a maintenance person who operates out of the Red Shed at the harbor, but who performs a range of duties). Adak's geographic location between the emerging markets in Asia and the west coast of the United States is also highlighted by the AEC as being important for the strategic growth of the community and the corporation.

Lodging and Restaurants

The excess community housing supply has provided other support business opportunities as well. For example, management of the Hotel Adak and longer-term housing leasing are enterprises previously run directly by the AEC but which have been run for the AEC through a contractor, the AHA, since 2004. While normally functioning as a development entity in the other regional communities it serves, the AHA acts as a management company in Adak (due primarily to the

excess built inventory in the community). The Hotel Adak operation utilizes a total of 50 housing units, 3 of which are considered VIP units reserved for visiting government officials and contractor upper management. The units used for the hotel are two-bedroom residential units in the Sandy Cove housing area (i.e., the same pool of housing units used for residences by much of the permanent population). While barracks-type facilities may have theoretically been more suited for hotel operations, all things being equal, most of these facilities are reportedly not in current repair. According to the operator, the hotel does get fisheries-related business through crew transfers and others transiting through the community, with an estimated 15 percent of the overall hotel business attributable to such use, with the opportunity limited by the relatively small size of the current fleet. Most of the hotel fishing-related business is from larger vessels, including factory trawlers, as crew shifts on the smaller catcher vessels can be easily accommodated using the housing leased by the shore processor. Most of the current hotel business derives from government contractor use, primarily with transient managers as the guests. As for larger contracting operations, the general crews are housed in blocks of leased units separate from the hotel operation itself. While hotel management reports some level of business all year, the hotel has marked seasonal peaks, with the spring (March-June) being slow, except for the occasional vessel crew that gets "weathered in" in the community and bird-watching groups, which typically may be present in either the spring or the fall (with spring season normally more active than the fall season). Summer business is primarily made up of contractors, normally associated with unexploded ordnance and environmental cleanup operations, and visiting government officials. For the summer of 2007, an upswing in business was anticipated in conjunction with Manson Construction work on the SBX radar project. Autumn sees a higher proportion of hunters than the rest of the year. In addition to Hotel Adak, the AHA staff manages residential leasing to all community residents (except for the relatively few Aleut Corporation shareholders who own their own homes), maintains and repairs all leased housing on the island, and assesses the need for the possible demolition of condemned housing units. Due to increased demand primarily associated with the SBX project and other security and contracting needs, the AHA is considering adding an additional 25 to 30 units to the existing 50-unit Hotel Adak inventory and additional 40 permanent lease units to its existing 45-unit permanent lease inventory during 2007. Future activities may include moving excess housing stock to other AHA-managed communities in need. The AHA has five full-time employees in Adak: one hotel manager, two maintenance personnel, and two housekeeping staff.

Candel's Café is located inside the main community center building (the former high school building) occupying the space originally created for the high school cafeteria. As Adak's only full-service restaurant (the Aleutian Sports Bar and Grill has a limited grill menu and more limited [evening] hours), during most of the year Candel's Café is planned to be open Monday through Friday from 7:00 a.m. to 7:00 p.m. and Saturday from 10 a.m. to 6:00 p.m. At the time of fieldwork (May 2007), Candel's Café had been in operation for just over 2 months and was also planning to operate with longer hours in the summer and close for a couple of months during the slowest part of the year. Like a number of other local businesses, Candel's originated via networking with individuals already in the community. In this case, the owner of Candel's heard of economic opportunities in Adak from his brother, a contractor working in Adak for a private company. Lacking large amounts of investment capital and challenged by irregular barge service, the owner conducted what Adak residents call "recon," which is the practice of finding and reconditioning abandoned naval equipment for alternative reuse. This also involves the

bartering and exchanging of surplus equipment with other residents or entities. Through this exchange network, the owner of Candel's Café was able to obtain freezers, a mixer, and a dishwasher. It was explained, however, that the success of this practice relies heavily on previous mechanical and electrical knowledge, as virtually everything "recon-ed" is in need of at least minor repair.

The clientele of Candel's Café is reported to be a mix of tourists, contractors, government personnel, and workers involved directly in the commercial fishery. According to the owner, processor staff and fishermen regularly come in to the restaurant in search of simple menu fare, such as a pizza or burgers. Based on other local restaurateur's experience, spring and summer months are expected to be the most busy with processor and vessel crew from the spring combining with more tourists and contractors in the summer. Hunters make up a small clientele in the autumn months. A contract with Manson Construction, a major contractor for the SBX project, for meal services promised to provide a good summer season at the time of fieldwork in 2007. The restaurant also provides meals for individual students at the school, which is located in the same central community building. Though Candel's Café does not organize a designated school lunch program, parents can prearrange for meals to be made for their children to be ready at a designated time.

Employment is limited at Candel's Café, with the owner as the only full-time employee. Part-time help has occasionally been added during busy times to assist with dishes or custodial duties. Like other food-related businesses in Adak, obtaining fresh ingredients has been a challenge for Candel's Café. The owner has also experienced spoiled ingredients arriving by plane, and the freight rate for some ingredients makes some supplies cost-prohibitive to ship. For example, a $10 sack of flour can reportedly cost as much as $25 by the time it arrives in Adak. With irregular barge service to the island, the owner of Candel's Café regularly tries to arrange for supplies to come with whatever barges do come to the community, such as those arranged by cleanup contractors or construction personnel. For the Manson Construction support contract, for example, restaurant supplies were ordered 2.5 months before they were needed and arrangements were made for them to be shipped on the Manson support barge, which was due to arrive in the community 5 days ahead of the construction crew.

Following the common local pattern of business and income/employment diversification, the owner of Candel's Café supplements his restaurant business with a side business co-owned with his brother, an all-terrain vehicle (ATV)-rental. Adak Wheelers LLC offers two Yamaha Grizzly ATVs for rent. These ATVs are primarily rented by tourists and hunters who come to the island wishing to reach areas beyond the approximately 16 miles of paved road and 100 to 150 miles of gravel road on the island.

During the land transfer transition period, limited food service was also available evenings at the community's only bar, the Capt. Pat Kelly VFW hall. As a designated "commercial VFW," the Adak VFW, unlike most VFWs, was open to the general public. However, the VFW still needed at least five members to keep its charter and without the requisite number of members, the VFW was forced to sell its commercial license. The Aleutian Sports Bar and Grill (also known as the "Sports Bar") purchased the commercial license and now operates out of the same building, albeit in a different space. The Sports Bar offers a variety of beers and mixed drinks, typical bar

fare including burgers and chicken wings, two pool tables (with a weekly tournament on Friday nights), a jukebox, and a big-screen television. Grill hours are typically 6:00 p.m. to 9:00 p.m., with a closing time for the bar around 12 a.m. during the week and 2 a.m. on weekends.

The Sports Bar is co-owned by three community members and employs six people part-time, including kitchen staff and a bartender. As the only establishment open into the night (Candel's Café closes at 7:00 p.m.), the Sport's Bar clientele is a mix of locals, tourists, contractors, and, during the season, processor personnel. Like all businesses in Adak, the Sports Bar must struggle with fluctuating inventory levels, the absence of reliably scheduled barge service, and inconsistent quality of air freighted foodstuffs. As an example, during fieldwork in 2007, the Sports Bar ran out of beer.

In an effort to supplement the revenue pulled in by the Sports Bar, the owners of the space were able to secure a contract with Adak Fisheries to provide four meals a day per 24-hour period for plant workers during the peak season when the plant operates around the clock. One Sports Bar co-owner managed kitchen staff hired by Adak Seafoods to work in the facility's galley that was also leased by the seafood company. Two meals were served hot at the plant (noon and midnight) while the other two meals (breakfast and dinner at shift changes) were served in the old VFW space with the workers bussed over from the plant.

Miscellaneous

Blue Card Video, located in the community center building, rents DVDs and VHS tapes to locals and visitors to the community. The name Blue Card derives from the former long-standing mandatory training on unexploded ordnance that was required of individuals working or living on Adak prior to the land transfer. To document successful completion of the training, attendees were given a blue card. Classes were formerly held in the room the video store now occupies in the high school building. Following the withdrawal of active military personnel, videotaped blue card training was given by USFWS personnel, but this also has been discontinued. Today (2007), Blue Card Video has one part-time employee. Following the common pattern of employment and income diversification in Adak, the owner of Blue Card Video owns controlling or part interest in at least two other enterprises and is also employed by the City of Adak.

Rick's Liquor is located north of Adak Fisheries in what was formerly a gas station during the operation of the naval facility. Rick's Liquor carries pallets of beer and a wide array of hard liquor. The hours are limited to 6:00 p.m. to 8:00 p.m., and clientele includes primarily local residents, processor personnel, vessel crew, and hunters. Vessel crew is a significant proportion of business between fishing seasons when some vessels stay idle in the harbor. Despite business characterized as being good by the owner, Rick's Liquor is challenged by air freight prices on alcohol and must rely on barge service for beer and liquor delivery. One part-time employee works at Rick's Liquor managing inventory and conducting sales. In a familiar pattern, the owner of Rick's Liquor draws income from another sector of the local economy, as well; in this case, rental properties. As an Aleut Corporation shareholder, the owner of Rick's Liquor was able to obtain a home on Adak. Combined with a unit obtained through family members, inheritance, and purchase, the owner of Rick's Liquor owns and manages several housing units on Adak that are rented throughout the summer to contractors and government personnel.

3.3.4 Other Local Business/Service Activity

City of Adak

Adak, established as a municipality in 2001, has a manager form of government, which includes a mayor, a seven-person city council, and an advisory school board. The city has a total of seven employees in Adak, including three full-time and four part-time positions. The full-time positions include city manager, public works, and water/wastewater functions, with individuals fulfilling the latter two functions cross-trained in power plant operations. The part-time positions include city clerk, bookkeeper, and police functions, along with one position that is shared between the public works and water/wastewater functions. Solid waste and electrical supply functions are contracted out to private suppliers by the city. Local fire and emergency medical services are provided by volunteers.

Adak Clinic

The community clinic is also called upon to provide services to fishing-related personnel and transient contractors, as well as community residents. Like a number of other clinics in the region (e.g., the clinic in Sand Point), the Adak clinic is run by the Eastern Aleutian Tribes. Located in several rooms on the first floor of the high school building, the clinic has a staff of four: three part-time administrators who do light custodial duties, bookkeeping, and invoicing; and a medical provider, with the latter position being filled by a number of different individuals holding a range of credentials who are shared by regional clinics (in the Southcentral Foundation service area) on a rotating basis, such that this position in Adak at any given time may be staffed by a community health practitioner, a physician's assistant, or, most commonly during fishing seasons, a nurse practitioner. Mid-level practitioners are also requested by the clinic during busy summer seasons to facilitate a range of services as, for example, community health practitioners cannot prescribe drugs without a physician consultation, which can add considerable time to patient turnaround during peak periods. More advanced or specialty care is less frequently available.

On average, a doctor visits the community twice per year, but according to clinic staff while dentists are scheduled to visit twice yearly, due to weather and other schedule challenges, as of 2007 the community has not had a dentist visit in over 2 years. According to one clinic administrator, approximately one-half or less of the patient demand currently comes from the fishing industry. January through March is considered to be the busiest period, coinciding with A season, mainly due to the increased number of plant workers on the island, with a peak occurring during February and March. This can prove to be a challenging time for patient care that requires transport, as this is also when air travel conditions are the most problematic.

According to clinic staff, there are increases in service demand seen with B season and the black cod and halibut fisheries, but these are "nothing like A season." Common injuries for processor workers include repetitive-motion injuries (e.g., carpal tunnel) and, less commonly, crushed fingers and hands, and eye injuries. If needed, the Adak community clinic also services visiting fishermen throughout the year for injuries incurred while working at sea, including lacerations from hooks, dislocations, and the occasional missing digit. Processor-related clinic service fees

are typically covered by workman's compensation, while the fisherman's fund (itself funded out of commercial fishing license fees) typically covers clinic services related to vessel injuries, although in some cases the vessel owner will choose to pay directly. Qualifying Alaska Native patients are eligible for no fee to beneficiary services; other community residents, if not insured, are eligible for a sliding schedule of fees based on ability to pay, with clinic visits ranging from $10 at the low end to over $170 at the high end, plus an $11 dispensing fee per item. Clinic staff reports that contractors usually bring their own health professionals and are more likely to pay the $30,000 for medivac services from Adak to Anchorage, but even with additional resources, medivacs may be significantly delayed by weather conditions.

While during the military days Adak had a full hospital in the community, the current Adak clinic has more modest capabilities. For example, x-ray services are not yet available locally (although a digital x-ray machine is planned), meaning that individuals may have to be flown off-island for what otherwise would be some relatively basic diagnostic services. Prescription drugs are dispensed using a Telemed machine, a vending machine for prescription drugs connected by phone to a licensed health professional off-island. A morgue is also not present on Adak, nor is a cemetery or a cremation facility, meaning that residents who pass away must be kept in other cold storage located elsewhere on the island before being transported off-island for burial or cremation. The local emergency medical service provision in Adak is staffed by volunteers, including one Emergency Medical Technician III and eight Emergency Trauma Technicians, while the local fire department currently (2007) has four active volunteers. While sharing different aspects of patient care, these services are run through the city and not directly associated with the clinic.

National Defense and Federal Contracting

As noted previously, there are seasonal fluctuations in the Adak economy driven by fishing seasons and "contractor season." "Contractor season" refers to the peak summer activities of Department of Defense contractors associated with environmental cleanup of the former military facilities and the disposal of unexploded ordnance from previous military use. In terms of environmental remediation, the EPA has been overseeing the process of Superfund cleanup and restoration of Adak because materials such as transformer oils containing PCBs, petroleum, chlorinated solvents, and batteries had been disposed of on the island for over 50 years (Sepez et al. 2005).

In addition to being in transition from a former military community to a civilian settlement, Adak's economy is in transition as contractor-oriented activities decrease and fisheries activities (and other private sector activities) increase. In the initial post-base-closure years, contracting workforces were considerably larger and contractor personnel support services were more extensive than is now the case. For example, there used to be a galley operation to support the crews, but this service closed in September 2001. Contractor personnel have to a large degree remained self-sustaining or self-contained vis-a-vis the rest of the community; however, as personnel now typically prepare their own food from supplies they arrange to have brought in on the barge or via air freight. (Some contractor personnel do make at least some local store or restaurant purchases, and at least some hunt and fish locally and/or purchase fresh fish off of local vessels.)

Although there is variability from year to year, at present (2007), contractors typically arrive around the last week of May, with full crews present in the community by the first week of June. Numbers of workers present drop off in September, but at least a skeleton crew is typically present in the community through the last barge at the end of November. According to local government sources, between 20 and 30 personnel are expected during the 2007 summer season. Environmental remediation programs are winding down and the bulk of the unexploded ordnance cleanup around the community has been completed, meaning the summer contracting crews at present are much smaller than seen even a few years ago, but at least some work will occur seasonally into the foreseeable future given the nature of the environmental challenges presented by the long-term military use of the island. Like processing personnel who work in Adak, seasonal contracting personnel are typically hired from elsewhere, with the prime contractor and subcontractors hiring from a wide region, including Anchorage and the lower 48 states, although some local hiring continues to occur, albeit at levels sharply reduced from those seen in the first few post-base-closure years.

Adak's geographic position and existing infrastructure continue to make it a strategic placement for U.S. military establishments. It was announced in April of 2003 that Adak had been chosen as a site for the SBX radar system, which had been budgeted at $9.1 billion. This system is envisioned to form a part of the foundation of a national missile defense system. The SBX radar system uses a shorter wavelength than other radar systems, creating a more detailed radar picture for identification and differentiation, and will be used to track incoming and outgoing missiles, as well as kill assessment. Larger than a football field and displacing 50,000 tons, the radar system will be built upon a self-propelled, semi-submersible former oil-drilling platform (Kodiak Daily Mirror 2007; Globalsecurity.org 2007). It is estimated that this facility will require approximately 80 to 95 people to operate the system, almost all of whom would be stationed on the platform. According to the Juneau Empire Online newspaper (2007), "Sen. Ted Stevens, R-Alaska, said the decision to put the radar system on Adak will benefit the Native people who have taken over running Adak facilities." While the system was initially expected to arrive by summer 2005, delays in the program have slowed its installation. At the time of fieldwork in 2007, the SBX radar system is still not in place in Adak, although it had undergone a testing exercise in the waters outside Adak in the spring before leaving to Hawaii for repairs.

The SBX radar system will be supported by a 279-foot support vessel, *Dove*. The ship will transfer materials, fuel, and supplies from Adak to the SBX platform. The number of crew members on *Dove* is unknown, but it is not likely that many vessel-associated families would relocate to Adak.

Indirectly, however, the SBX system is bringing a number of new people to the island, affecting the economy by providing jobs and other opportunities. Alutiiq is a private security company contracted to provide protection for *Dove* 24 hours a day. Housing for members of the security team is leased by AHA. While management has a stated desire to hire locally, only one local resident has been hired to date due to the requisite military background and training needed for the position. Alutiiq personnel have 1-year assignments in the community, but may choose to stay longer. It is estimated by Alutiiq management that approximately 60 percent of all everyday purchases are made locally, while the remaining 40 percent are mail orders or items received from family members living elsewhere. Meals were initially organized privately, but the menu was too limited and Alutiiq personnel are now reimbursed for their grocery purchases.

Boeing, which has been contracted to provide logistical and organizational support for the SBX program, has also established an office in Adak. At the time of fieldwork in 2007, this office was staffed on a rotating schedule (2 weeks on, 2 weeks off) so that one employee was present full-time at any given time. Boeing had leased three housing units from AEC as of May 2007, although this number was expected to increase as the SBX system nears completion. It is unknown how many Boeing staff will be present in Adak at SBX full capacity, but approximately 40 Boeing staff were to be present during mooring construction in the summer of 2007.

At the time of fieldwork in 2007, Manson Construction was to arrive in the summer to construct a mooring system for the SBX radar platform. While the platform will regularly be located in an undisclosed location in the Pacific, the facility will moor in Adak for service needs and protection from weather. Manson Construction was to bring upwards of 175 people to construct the mooring, lease housing from AEC, and have mess services provided through a contract with Candel's Café. Manson was expected to hire nonskilled and available skilled labor from the community to assist in construction.[23]

Local leadership has expressed the hope that the increased activity associated with the SBX system may also facilitate improvement to some of the community facilities currently in disrepair. A power plant planned to support the SBX system could, for example, provide enough energy to heat the school, and local residents hope that contractor demand may make it feasible to repair, reopen, and maintain the pool, racquetball, weight room, and gym facilities in the school building, which would provide an overall improved quality of life for the community. The bowling alley may also be opened by a local community member in anticipation of SBX and related contractor personnel looking for another entertainment venue outside of the Sports Bar. More residents and more government vehicles in town could also provide an opportunity for a private mechanic business to open. Generally, there is a level of optimism surrounding the SBX system and the potential economic growth it could directly or indirectly bring to the community. The economic hopes once pinned almost exclusively to the establishment and success of the fish plant are now, at least temporarily, strongly focused on the possible growth induced by the SBX missile defense project. There is a perception by some in the community, however, that this type of project will result in a "bachelor camp" type of population influx similar to what is seen in logging camps elsewhere in the state, as opposed to more typical population growth seen with a broader economic base.

U.S. Fish and Wildlife Service

Adak is the site of considerable seasonal USFWS activity. While there was a much larger contingent of personnel present during the late military era, and as recently as the land transfer transition period (c. 2002) there were three permanent, full-time employees assigned to Adak, currently (2007) there are no permanent USFWS staff stationed in Adak for the full year, which now functions as a summer operations base. One employee manages the office and coordinates logistics from mid-April through September. The logistics managed are related to other USFWS

[23] According to press coverage several months after fieldwork, the mooring system was completed ahead of schedule and is now located approximately 3.5 miles from the shore in Kuluk Bay (Kodiak Daily Mirror 2007).

field camps and operations elsewhere in the Aleutians, from Cold Bay in the east to Attu in the west, for which Adak serves as a marshalling point because of its regular air service. Upwards of 100 USFWS personnel pass through Adak during the May through September field season and these individuals may spend a few days or more in Adak before heading to their ultimate field site. Additional personnel are assigned directly to Adak seasonally, and the USFWS Adak facilities and personnel are also used to support natural resource studies (and/or management) by a variety of entities, including NMFS, USGS, the State of Alaska, and various universities.[24] One USFWS employee is a year-round resident of Adak, but active employment of this individual is limited to the summer season (mid-April through early October).

USFWS visitor services have changed in Adak as the community has changed. Formerly an NWR headquarters with a staff of between 15 and 25, there is also a relatively large visitor center in Adak that is not currently in use. Designed to provide services to a community of over 6,000 persons, this facility cannot be efficiently run with the current small, seasonal staff and relatively low post-military visitor service demand. Alaska Maritime NWR headquarters are now located in the community of Homer, but local maintenance and carpentry shops, a part of the former headquarters complex, are still used to support ongoing operations. Exhibits once housed in the visitor center are now located in the Adak community center and are almost entirely property of the city.[25] The USFWS no longer keeps visitor statistics for Adak, but earlier fieldwork reported that, in the year from October 2001 to October 2002, the Adak USFWS facilities saw 210 visitors from cruise ships (then a form of visitation new to the community), 150 general visitation contacts, and 275 participants in the unexploded ordnance awareness program run by the USFWS (also known as "blue card" training). Participants in the blue card training included about 150 fish processing workers (including personnel from the local shore plant as well as floaters that were in the community at least temporarily), 100 Navy contractors, and 25 members of the general public. At present (2007), however, the level of visitation to the local unit of the Alaska Maritime National Wildlife Refuge (AMNWR) has declined and blue card training is no longer offered as most areas with unexploded ordnance are now controlled by the Aleut Corporation. In 2007, staff reported that perhaps 20 to 30 contacts with the public would be made after each "plane day" during the summer when birders or other tourists were present, with contacts related to hunters extending from August into October.

Tourism

The community does see a minor amount of business related to tourism. According to one local business owner, in recent years three cruise ships have come to the community, but little came of that as "the tourists had no place to spend their money." Recently, however, one cruise ship a year has been coming to Adak. According to USFWS personnel, while there is promotion of tourism by local and regional entities, including the Aleut Corporation, cruise ships have historically tended to end up in Adak as an alternate port if they are weathered out of their

[24] Such inter-entity cooperation is common in the region, as NMFS and the USFWS share facilities and personnel resources in the Pribilofs as well. The USFWS also works with the U.S. Coast Guard on Attu, and the National Park Service that manages some of the historic military resources in or around the Alaska Maritime NWR, including submerged cultural resources (primarily sunken vessels) around Kiska and Attu.

[25] The only exhibit pieces not owned by the city are the preserved eagles on display, which are technically on loan from the USFWS, due to ownership restrictions related to species conservation laws.

primary destination, as opposed to having Adak itself as a primary destination. As of 2007, however, it seems that bird watching and other natural resources are of interest to cruise ship passengers as the last cruise visitors boarded busses loaned by Adak Fisheries for a tour of the island. Other primary draws for these cruises have been the World War II military history at Attu and Kiska, Cold War history, the volcanoes of the Aleutians and far eastern Russia, and a retracing of Bering's route.

Tourism also occurs in the form of hunters coming to the island for caribou, and the community sees at least a modest economic gain from that activity, typically during the late summer and early fall months. Residents report that Adak has appeared in a number of hunting periodicals and on television, highlighting the size and quality of caribou on the island—which has been left to flourish absent any natural predators. Residents report that trophy hunters have won recognition for the quality of racks taken from Adak, and that outfitting has been both a local and an outside activity. Reportedly, no locals have operated as land-based hunting guides, but a couple of individual guides from outside the community have flown out and led hunts on a steady basis over the last few years. One local vessel owner with a "6 pack" license has taken out hunters (as well as birders) on a relatively frequent basis. An entity from outside the community has offered charter boat-based hunts utilizing a former commercial crab fishing vessel that has been refurbished for recreational use. According to local officials, this vessel first began this service in Adak in 2006 and was in the community approximately 10 weeks that year. One local business also rents ATVs that have been utilized by hunters as well. Hunters sometimes utilize the recreational cabins that the military and the USFWS left on the island, but these are reportedly falling into disrepair without ongoing maintenance.

Bird watchers also visit Adak in the spring and summer months. Strong winds can bring some rare Asiatic species to the Aleutian chain, giving some American residents the opportunity to see Asiatic species without the challenges of international travel. While some rare bird species may be more prevalent in other Aleutian communities (e.g., St. Paul and St. George), the relative ease of air travel to Adak, available lodging, a restaurant and bar, and over 100 miles of roads makes Adak an easy alternative for individuals and groups interested in bird watching, particularly for those who are elderly. According to local residents and USFWS staff, approximately a dozen bird watchers and/or hunters arrive weekly through the spring, summer, and fall. Bird watchers tend to lessen by the end of summer, however, giving way to more hunters. According to local business owners, birders may sometimes expect more resort area type amenities than perhaps the community of Adak or individual businesses have to offer at present, whereas hunters may be more satisfied with what could be perceived as rustic conditions.

There is also some tourism in the community related to the World War II and Cold War era military activity on the island. One local business owner cited two recent examples of this type of activity: one where a man brought his son to show him where he was stationed in the military and another where a woman came to the community specifically to see where her father had served. There is also some general sight-seeing tourism that is done in combination with trips people make to Adak for other purposes. In addition to formal charter services, at least one other recreational vessel owner on Adak takes individuals or small groups out on informal tours or fishing trips, but not as a business per se.

3.3.5 Subsistence Harvesting

Until recently, Adak had been classified as a nonrural area for federal subsistence purposes because of size of the population and degree of development in the community during the era when Adak was the site of an active military base. On December 14, 2006, however, the Federal Subsistence Board changed Adak's designated status from urban to rural. This new status gives residents increased harvest access and preference for subsistence wildlife, fish, and shellfish on federal lands. The degree to which Adak residents participate in the federal subsistence fishery, however, is undocumented at this time. Under federal management, there is no limit to caribou and fish taken for subsistence purposes on federal lands.

Adak is also considered rural by the State of Alaska, meaning that residents are also eligible to subsistence harvest on state lands, subject to state regulations. Subsistence data from ADF&G for the most recent year available, 2005, shows that 12 harbor seals and eight Steller sea lions had been harvested for subsistence purposes (ADG&G 2006). Permits are required for both salmon and halibut subsistence fisheries, with salmon permits limited to 25 individual fish per family member. In practice, however, no formal salmon subsistence permits are issued in Adak and, if additional permits are needed, they can be called in. ADF&G records indicate that six residents of Adak were given salmon subsistence fisheries by the State of Alaska in 2003, up from the three issued in 2002. The estimated 2003 harvest for all permits in the Adak District (which included one permit held by a resident of King Cove) was 338 salmon (all sockeye), which was an increase over the 150 salmon harvested in 2002. Since 1999, the average salmon permits issued has been nine, with an average annual harvest of 308 salmon (ADF&G 2005). No data exist for subsistence halibut use, but local interviews indicate that halibut subsistence is important. With limits of 400 pounds of halibut per year per family member, individuals can fish for other family members and can sell a portion of catch to recover gear costs. Interviews for this project (2007) suggest that fishing is second in importance only to caribou as an element of the subsistence component of the diet of Adak residents and that subsistence pursuits are an important component of life in the community beyond immediate dietary needs. According to interviews, more popular subsistence fishing areas include Kagalaska Strait, between Adak and Kagalaska islands, for red salmon runs, while Finger Bay is a favored location for pink and silver salmon runs for both subsistence and sport use. Finger Bay is also reportedly a favored area for personal use or subsistence halibut fishing.

Caribou hunting is a key subsistence activity in Adak. At the time of fieldwork (2007), there was no limit and no designated season for caribou, although a limit of five had been proposed. Caribou are plentiful on Adak, as there are no natural predators on the island, and the population has been growing for years. According to local residents, the first snows of the year push some caribou herds closer to the town center and many residents take part in the harvest at this time. Sport hunters from outside the community also regularly provide meat to local residents after harvesting trophy racks (especially given the shipping costs associated with taking harvested meat out of the community). Despite at least some sport and subsistence hunting activity, however, the caribou population of Adak had swelled to 2,751 in 2005. At this rate, the long-term health of the herd is questionable (Williams and Tutiakoff Jr. 2005) and is an issue of local concern.

3.4 LOCAL GOVERNANCE AND REVENUES

The current (2007) local tax structure includes a 3 percent tax on sales (including fisheries) and a 1.5 cent per gallon fuel transfer tax. Fisheries are expected to provide a significant portion of community revenues as Adak receives both local sales tax and revenue from shared state fisheries and business taxes, accumulating to 6.25 percent on all fishery sales. There are no local property taxes in Adak.

Municipal services provided include water, sewer, trash collection, and electricity. Residents are charged a flat fee for water, sewer, and trash collection. Electrical use is metered. The city derives revenue from fisheries-related activity from provision of these municipal services to the processing plant, but the plant is not able to run on the city electrical grid during peak processing demand times. When the plant is processing, freezing product, and ice making, it accesses its own generation capacity.

Municipal revenues from 2002-2006 are shown in Table ADAK-17. The jump in revenue from 2002 to 2003 is primarily attributed to a change in taxation that took place after the first year of incorporation. A significant jump in capital project revenues is also seen for 2005.

Table ADAK-17. Municipal Revenues, Adak, 2002-2006

Revenue Source	2002	2003	2004	2005	2006
Local Operating Revenues					
Taxes	$612,352	$792,285	$717,755	$642,710	$589,251
License/Permits	$625	$725	$700	$1,198	$490
Service Charges	$95,590	$75,305	$269,935	$57,870	$139,837
Enterprise	$247,363	$1,283,827	$1,230,635	$1,244,043	$592,342
Other Local Revenue	$0	$35,271	$18,212	$262,860	$98,354
Total Local Operating Revenues	$955,930	$2,187,413	$2,237,237	$2,208,681	$1,420,274
Outside Operating Revenues					
Federal Operating	$11,626	$23,304	$15,285	$14,812	$0
State Revenue Sharing	$0	$30,245	$0	$0	$0
State Municipal Assistance	$0	$5,608	$0	$0	$0
State Fish Tax Sharing	$0	$401,301	$507,361	$590,980	$218,622
Other State Revenue	$81,611	$0	$40,000	$54,629	$251,389
Other Intergovernmental	$92,159	$0	$0	$0	$0
State/Federal Education Funds	$0	$0	$0	$0	$0
Total Outside Revenues	$185,396	$460,458	$562,646	$660,421	$470,011
Total Operating Revenues	$1,141,326	$2,647,871	$2,799,883	$2,869,102	$1,890,285
Operating Revenue per Capita	$7,660	$17,652	$40,578	$17,180	$12,947
State/Federal Capital Project Revenues	$95,400	$268,992	$157,766	$510,036	$0
Total All Revenues	$1,236,726	$2,916,863	$2,957,649	$3,379,138	$1,890,285
Total All Revenues (2006 Constant Dollars)	$1,385,903	$3,195,867	$3,156,496	$3,488,142	$1,890,285

Source: A. Logan, DCRA, personal communication, 2007, 2008; Federal Reserve Bank of Minneapolis 2008

Despite being a relatively new community, local government, and fishery participant, it is clear that the community of Adak, as presently constituted, is dependent upon commercial fisheries as a key portion of a sustainable economic base. This dependency has become relatively greater in the few years since the local plant opened, as this was the same time during which base cleanup and closure activities were winding down. According to City staff, however, the city itself received no direct benefit (at least in the form of revenues) from cleanup activities. On the contrary, some city leaders have argued that federal funding of military cleanup activities on Adak has actually put the city at a competitive disadvantage for federal funding of projects that would be of greater or longer-term economic benefit to the community (as the cleanup allocations that are consumed by contractors and other off-island entities may be perceived as federal funding to the community, making additional federal funds all that much harder to come by). Now that cleanup activities are nearly concluded, this may no longer be an impediment to receiving additional funds. The coming of the federally supported SBX program, which represents a welcome range of inputs to the local economy, may serve to offset to some degree the loss of inputs that occurred with the dropping off of the environmental cleanup activities and may provide for some longer-term stability.

To help facilitate the growth of the local fisheries sector of the community economy, the City of Adak is in the process of overseeing the construction and operating of a new small boat harbor in the southwest corner of Sweeper Cove. As described in the local fleet discussion above, the small boat harbor is being completed in phases. At the time of fieldwork (2007), the harbor does not have floats or slips as planned, and completion of rock work, the construction of a turning basin, and channel improvements are needed before the larger vessels of the small boat fleet that serves the local processor can utilize the small boat harbor. The busiest time of year for the harbor is during A season when it reportedly fills with small trawl vessels. At present (2007), the city does not charge vessels for use of the small boat harbor.

At present, City priorities are conversion and "right-sizing" of the former military power plant to more efficiently serve the community and the construction of a small boat harbor. The right-sizing effort will also include the water system, sewer system, and electrical system—all of which were built for a much larger population and level of activity than is currently present. City employment numbers, which are generally in a normal proportion to the approximately 120 residents, are not enough to keep up with the routine maintenance required for the existing infrastructure for 6,000. Compounding this difficulty, some of the former military infrastructure is more advanced than is used in the rest of the public sector and the level of expertise is not always present in the community to make long-lasting, efficient repairs. Further, it is difficult for the City to adequately charge for services compared to system operating costs. For example, the City Manager reports that the city cannot charge customers what it actually costs to run the water system, such that the city recoups only approximately half of what it must spend. City staff reports that little sympathy is given Adak for having too much infrastructure, however, and that funding to right-size or repair damaged facilities has been difficult to obtain.

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ST. PAUL

CHAPTER 4.0
ST. PAUL

The community of St. Paul is located on a narrow peninsula on the southern tip of St. Paul Island, the largest of the five Pribilof Islands. St. Paul Island lies 47 miles north of St. George Island, 240 miles north of the Aleutian Islands, 300 miles west of the Alaska mainland, and 750 air miles west of Anchorage. St. Paul, located in the Aleutians West Census Area, is not part of an organized borough. The City of St. Paul, incorporated in 1971, encompasses 40.3 square miles of land and 255.2 square miles of water.

The climate of St. Paul is arctic maritime. The Bering Sea location results in cool weather year-round and a narrow range of mean temperatures varying from 19 to 51°F. Average precipitation is 25 inches, with snowfall of 56 inches. Heavy fog is common during summer months, as are high winds.

4.1 OVERVIEW

The first reported sightings of St. Paul Island by Europeans were made by seal hunters in 1787 who were left behind by Gavrill Pribilof to search for prime fur seal hunting areas. The island was originally coined St. Peter and St. Paul Island by the European explorers because it was spotted on June 29, the feast day for both saints. Although uninhabited at the time of the European landing, the Pribilof Islands had been known by nearby Aleut peoples by the name "Aamax, a rich hunting ground once visited by an Aleut chief lost in a storm" (Corbett and Swibold 2000 in Sepez et al. 2005:375). Russian missionaries called the Pribilofs "the place that God forgot" because of the poor weather that can sometimes overtake the islands, including thick fog, high winds, and torrential rains (*ibid*).

The Pribilof Islands have been called "The Galapagos of the North" and the "Islands of the Seals" due to the rich biodiversity present on both islands. Among this wildlife is the largest concentration of northern fur seals in the world, which annually breed on both islands. These breeding grounds became prime areas for the commercial fur seal harvest in the 18th century. Beginning in 1788, the Russian American Company relocated indentured or enslaved Aleuts from Siberia, Atka, and Unalaska to the Pribilofs to hunt fur seals, and the contemporary population of both St. Paul and St. George trace their ancestry to those original hunters. The island was administered by the Russian American Company until the sale and transfer of Alaska from Russia to the United States in 1867.

In 1870, the Alaska Commercial Company was awarded a 20-year sealing lease by the U.S. Government and provided housing, food, and medical care to the Aleuts in exchange for seal harvesting. In 1890, a second 20-year lease was awarded to the North American Commercial Company. However, the fur seals had been overharvested and a period of severe local poverty ensued. The 1910 Fur Seal Act ended private leasing on the islands and placed the community and fur seals under the administration of the U.S. Bureau of Fisheries. Food and clothing were scarce, social and racial segregation was practiced, and working conditions were poor.

During World War II, the Pribilof Aleuts were moved to Admiralty Island in Southeast Alaska as part of the evacuation of civilian residents from the Bering Sea. St. Paul residents were confined in an abandoned cannery at Funter Bay. By the mid-1960s, Aleuts had gained a number of important civil rights from the passage of the Fur Seal Act of 1966, also known as the Bartlett Act. This act was named after Alaska Senator Bob Bartlett, who traveled to the Pribilofs and published a book on his experience, which detailed the islanders' situation. Passage of the act resulted in the transfer of the houses and government land into private Pribilovian ownership, gave St. Paul the freedom to incorporate as a city under Alaska state law, and the recognition of retirement benefits for those residents who had worked for the government before 1950. Following these changes, the Public Health Service took control of the clinic, and the state of Alaska took control of the school (Henning 1982). Finally, in 1979, Pribilof residents received $8.5 million in partial compensation for the treatment to which they were subjected by the U.S. government from 1870 to 1946 (Sepez et al. 2005).

In 1983, Congress passed the Fur Seal Act Amendments, which ended government control of the commercial seal harvest and the effective federal domination of daily life on the island. Responsibility for providing community services and management of the fur seals was left to local entities. Commercial harvests on St. Paul ended around this same time (while commercial sealing had ceased on St. George a decade earlier), despite an assumption that they would be phased out over a period of time.[26] Takes of fur seals are now prohibited except by Alaska Natives for subsistence purposes (with a local subsistence harvest still occurring annually).[27]

As a part of the Fur Seal Act Amendments, "In order to promote the development of a stable, self-sufficient, enduring, and diversified economy not dependent on sealing, the Secretary [of Commerce] shall cause to be established a Trust for the benefit of the Natives of the Pribilof Islands" (Title 16 of the US Code Section 1166(a)(1)). As part of this transition from sealing, funds totaling $20 million were provided to help develop and diversify the Pribilof economy—$12 million to St. Paul and $8 million to St. George. On St. Paul, most of the transition funds were used to upgrade inadequate community infrastructure, including major investments in the harbor. The federal government in 1983 also apparently assumed that the State of Alaska would provide substantial harbor improvement funding to supplement the federal transition funds, but the state was seemingly not in a position to do so. Thus, federal withdrawal took place without commercial sealing continuing at least for some time during a transitional phase-out period, state assumption of the harbor development project, or substantial continuing funding available for economic development and diversification, all key assumptions for the development of a self-sustaining local economy.

Incorporated as a second-class city, St. Paul is a port for the central Bering Sea fishing fleet, and port and harbor improvements have been the basis for recent economic development. The local commercial halibut fishery got its start in 1981, and a crab processing shore plant was built several years later. Local residents hold commercial fishing permits for halibut, with some fishing their own halibut IFQs, CDQ halibut, or both. Currently (2007), the Central Bering Sea

[26] Apparently commercial sealing was stopped on St. Paul specifically as a result of the U.S. Senate failing to ratify the Fur Seal Treaty in 1984.

[27] Further, possession and use of fur seal pelts or other products are now prohibited, except in the case of some Alaska Native traditional or craft uses.

Fishermen's Association (CBSFA), the local CDQ organization, buys halibut from the local fleet, as does Trident Seafoods, the owner and operator of the local shore plant. While the CBSFA buys exclusively from local vessels, Trident buys mostly from outside vessels but does purchase at least some IFQ halibut from local vessels as well. All halibut bought locally is processed at the Trident plant, either as custom processing for CBSFA or direct processing by Trident itself.[28] Despite having only one shore processor at present, some other infrastructure is in place, including recently completed cold storage, due to previous shore as well as floating processing activities. In the past, UniSea and Icicle floating processors operated annually in the harbor, others operated nearby but outside the harbor itself, and up to nine offshore processors have been serviced out of St. Paul during a single year. More recently, UniSea discontinued operations in the community. While Icicle was not present during the 2007 opilio season, leaving Trident as the only processor in St. Paul that year, Icicle was again present in St. Paul harbor during the 2008 opilio season, reportedly custom processing for other companies as well as processing their own processor quota; Trident also currently (2008) both processes its own processor allocation and custom processes crab for other companies.[29]

Scenes of the physical setting of St. Paul may be found in Plates STPL-1, STPL-2, and STPL-3. Some of the physical layout of the community is portrayed in Plates STPL-4 and STPL-5, and a map of the community is provided in Maps STPL-1 and STPL-2.

4.2 COMMUNITY DEMOGRAPHICS

As briefly outlined above, St. Paul has yet an entirely different origin than the other communities profiled (other than nearby St. George). The contemporary community traces its roots directly to the forced migration and population of a commercial sealing outpost on previously uninhabited lands under Russian dominion. In this way it does not have the continuity to a prehistoric past like Unalaska, an original foundation in the commercial fishery like King Cove, or a grounding in military exigencies like Adak. St. Paul (along with neighboring St. George) has by far the largest proportion of Alaska Natives relative to total population of any of the communities profiled. As with these other communities, however, local residents perceive the fishing industry as the best economic opportunity for the community, especially given St. Paul's status as a CDQ community, the potential advantages for development this status entails, and the success already enjoyed through the undertakings of the CBSFA, the local CDQ organization. Some of the attributes of the contemporary community may be seen in Plates STPL-6, STPL-7, STPL-8, and STPL-9.

4.2.1 Total Population

Information on the total population of St. Paul by decade for the past 120 years is presented in Table STPL-1. St. Paul Island had a total population of 532 people in 2000 and of those 55.3 percent were male and 44.7 percent were female. As shown, the population declined between 1880 and 1910, but increased every decade between 1910 and 1990. Between 1990 and 2000, however, the population declined by approximately 30 percent. This can perhaps be at least partially accounted for by a reduction in the enumeration of fish processing employees (see discussion of ethnicity below). The long-term construction of the harbor began in 1984 and,

[28] According to CBSFA representatives, as of 2008 CBSFA is in the process of acquiring part interest in local Trident operations (which occur on land and in facilities owned by TDX).

[29] Information regarding 2008 activities was obtained from CBSFA during the comment period.

while projects continue, it was officially opened August 3, 1990. Thus, the contracted labor force for this (and other) projects may have also peaked in 1990. Current adverse local (and regional) economic conditions may also be contributing to an overall population decline. Current estimations by city staff put the population at the time of fieldwork (2007) between 432 and 450, a marked decline from the level seen in 2000.

Table STPL-1. Population by Decade, St. Paul, 1880-2000

Year	Population
1880	298
1890	244
1900	214
1910	201
1920	212
1930	247
1940	299
1950	359
1960	378
1970	450
1980	551
1990	763
2000	532

Source: DCRA 2007; U.S. Census Bureau 2007b

4.2.2 Ethnicity

Table STPL-2 presents information on ethnicity of the St. Paul population for 1990 and 2000. As shown, the 2000 population is considerably less diverse than the 1990 population. In 1990, Alaska Natives accounted for two-thirds of the total population, while in 2000 the population was 86 percent Alaska Native. African Americans and Hispanics, present in the 1990 census, were absent in 2000, while Asian/Pacific Islanders and "Other" individuals were present at less than 10 percent of their 1990 totals. These minority groups are characteristically significant components of the fish processing workforce in Western Alaska and are typically absent in Western Alaska communities with no fish processing.

Table STPL-2. Ethnic Composition of Population, St. Paul, 1990 and 2000

Race/Ethnicity	1990		2000	
	Number	Percent	Number	Percent
White	164	21.5%	69	13.0%
Black or African American	12	1.6%	0	0.0%
American Indian, Eskimo, Aleut	504	66.0%	457	85.9%
Asian or Pacific Islander*	44	5.8%	3	0.6%
Other**	39	5.1%	3	0.6%
Total Population	763	100%	532	100%
Hispanic origin, any race***	62	8.1%	0	0.0%

*In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 3) and Asian (pop 0).
**In the 2000 census, this category was Some Other Race (pop 0) and Two or more races (pop 3).
***"Hispanic" is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).
Source: U.S. Census Bureau, 2007a, 2007b

ST. PAUL

PLATE
STPL-1
PHYSICAL SETTING

Top Left: View across Salt Lagoon

Top Right: A sandy, eroded area near the community

Bottom: A bluff on the northern end of the island

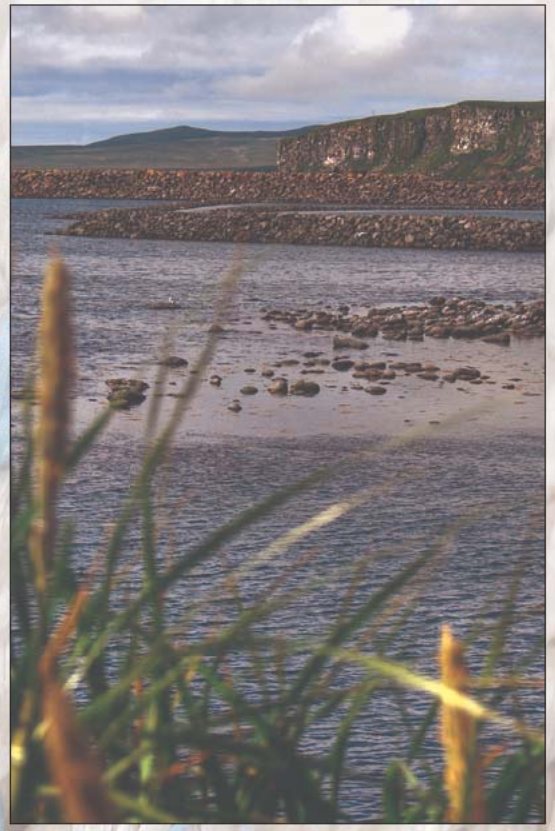

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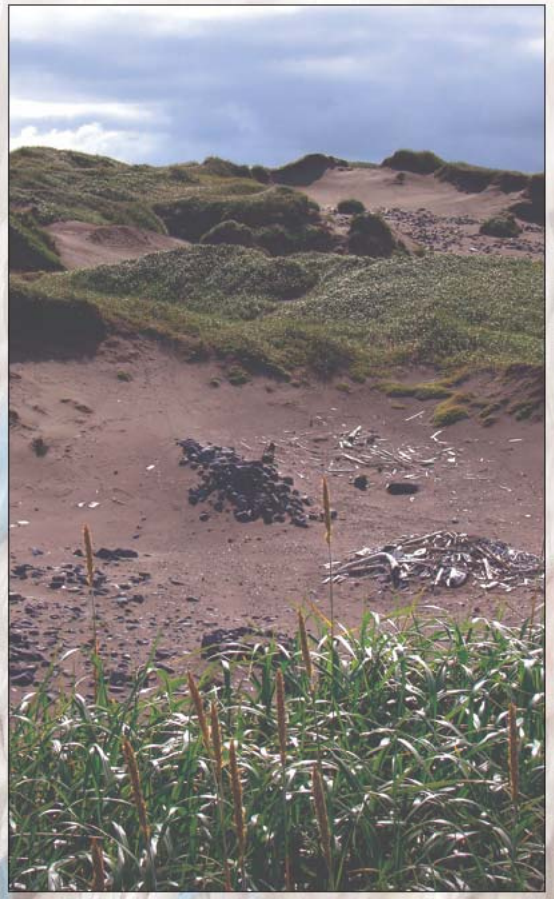
PLATE
STPL-2
PHYSICAL SETTING

Top Left: Sandy dunes and a campfire location near town

Top Right: Rocky shores on the northern end of the island

Bottom: A view from the community across Salt Lagoon



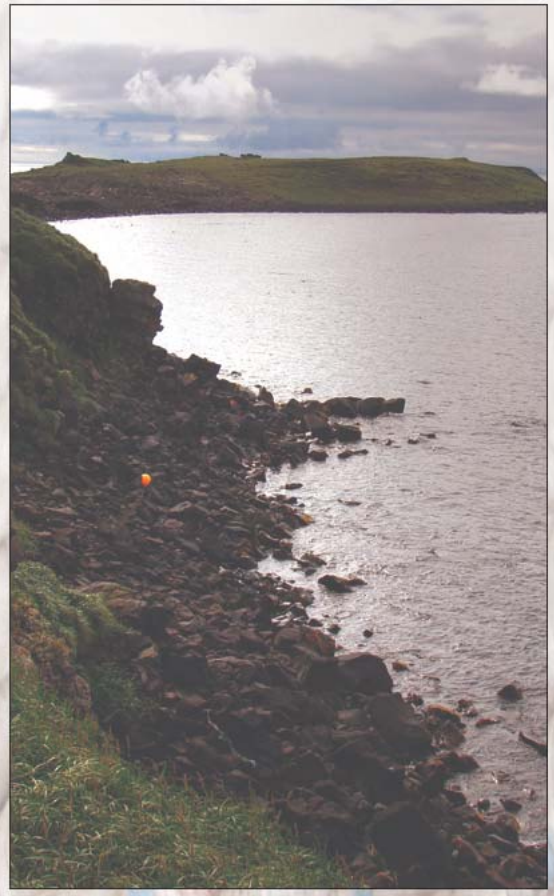


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PLATE
STPL-3
PHYSICAL SETTING

Top Left: Whorled lousewort

Top Right: Arctic lupine

Bottom: A drooping Arctic poppy

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ST. PAUL

PLATE
STPL-4
SPATIAL RELATIONSHIP

Top Left: A hillside in the community of St. Paul with residential buildings

Top Right: The Trident processing plant near the harbor

Bottom Left: St. Paul post office in relation to the main residential area and harbor

Bottom Right: Edge of the harbor and the Trident processing plant

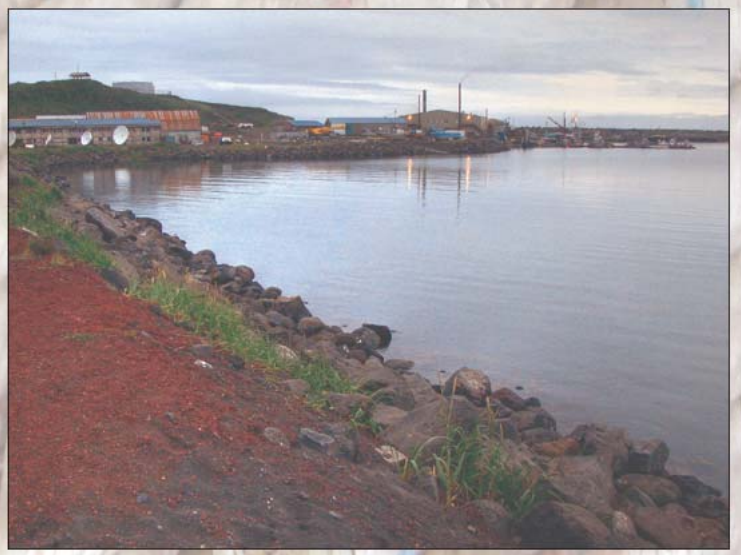

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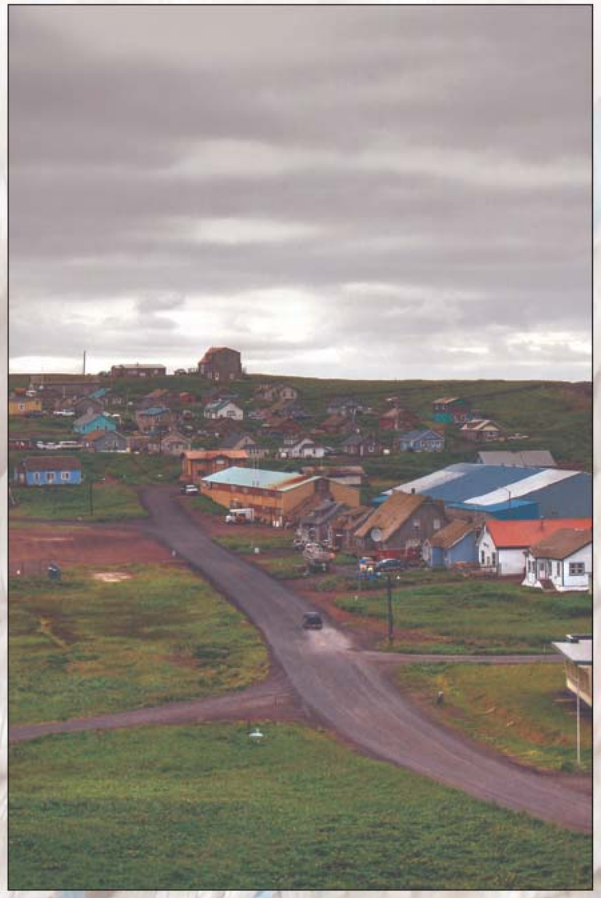
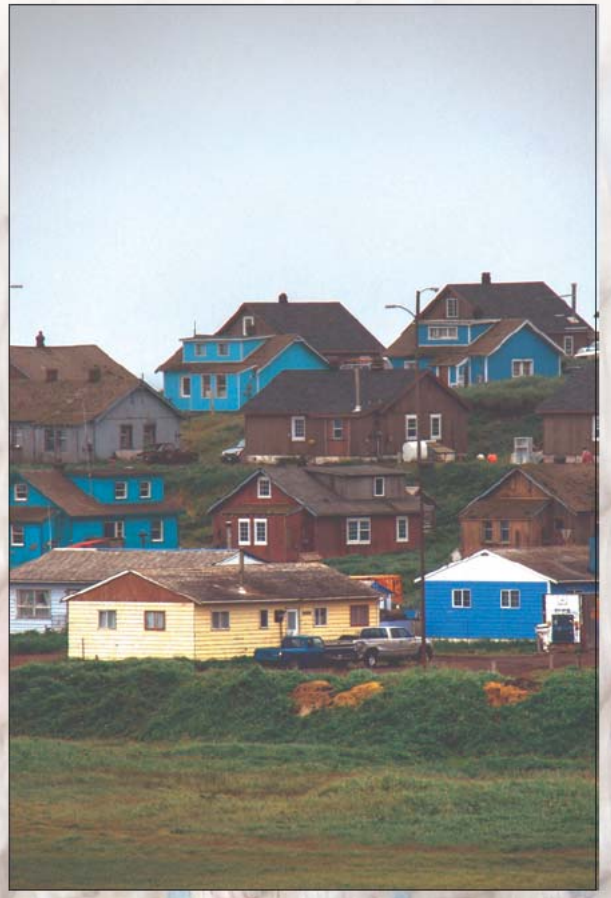
PLATE
STPL-5
SPATIAL RELATIONSHIP

All: The central residential area of St. Paul





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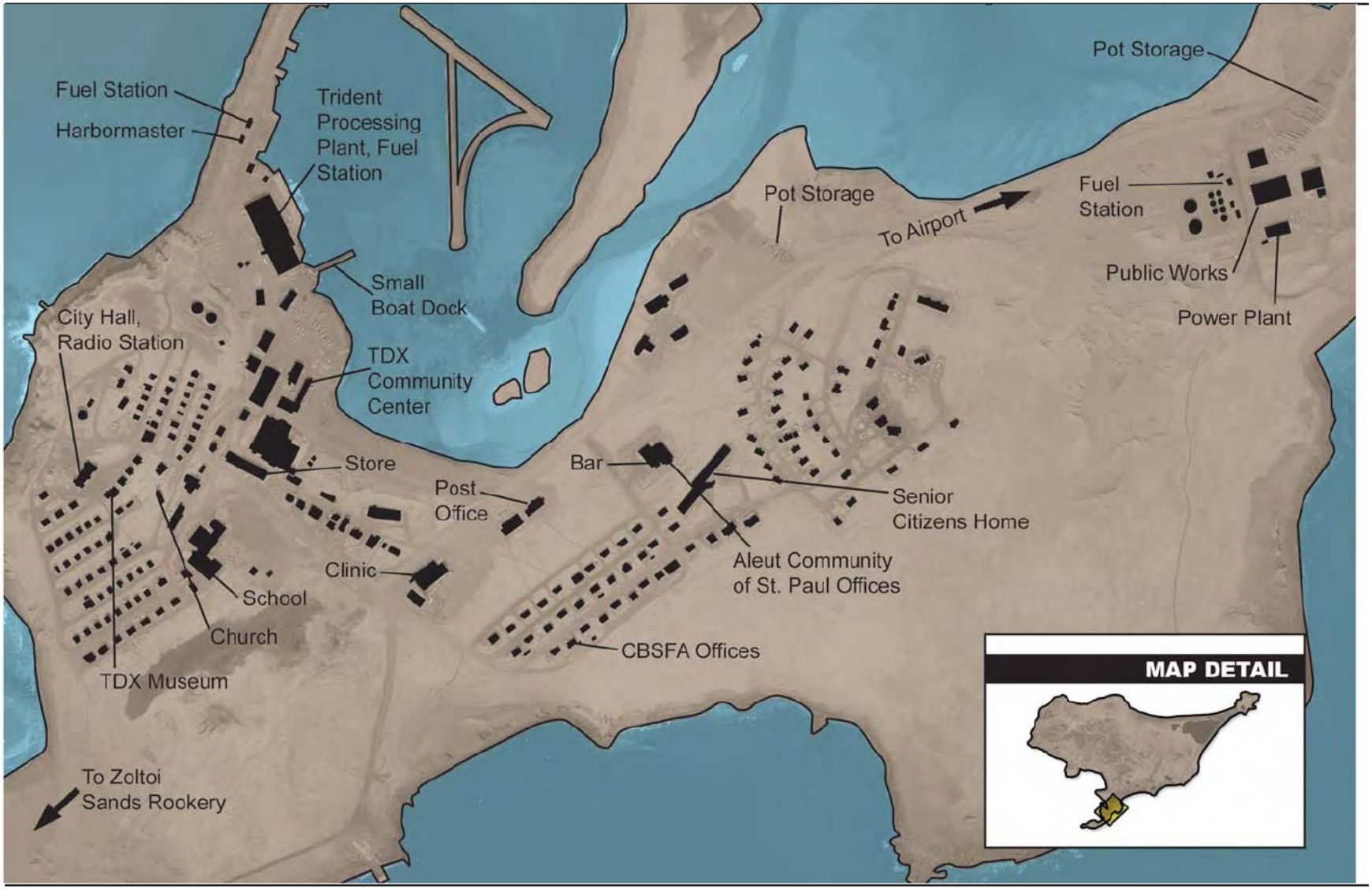

Source: Alaska Department of Commerce

Map STPL-1
Community of St. Paul

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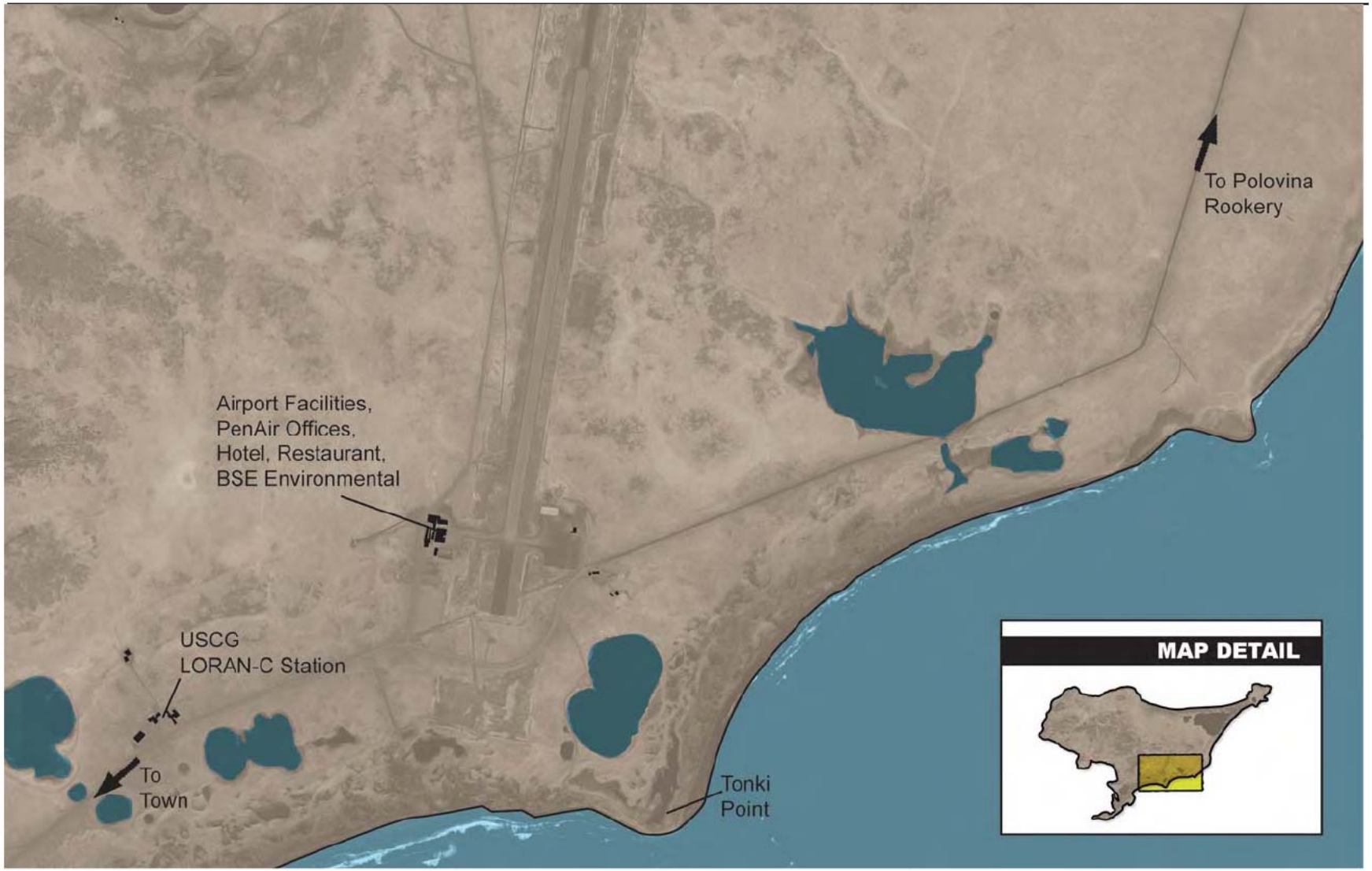

Source: Alaska Department of Commerce

Map STPL-2
Airport of St. Paul

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ST. PAUL

PLATE
STPL-6
COMMUNITY ATTRIBUTES

Top Left: St. Paul Russian Orthodox church

Right: Interior of church and detail of reliquary

Bottom Left: Interior of church

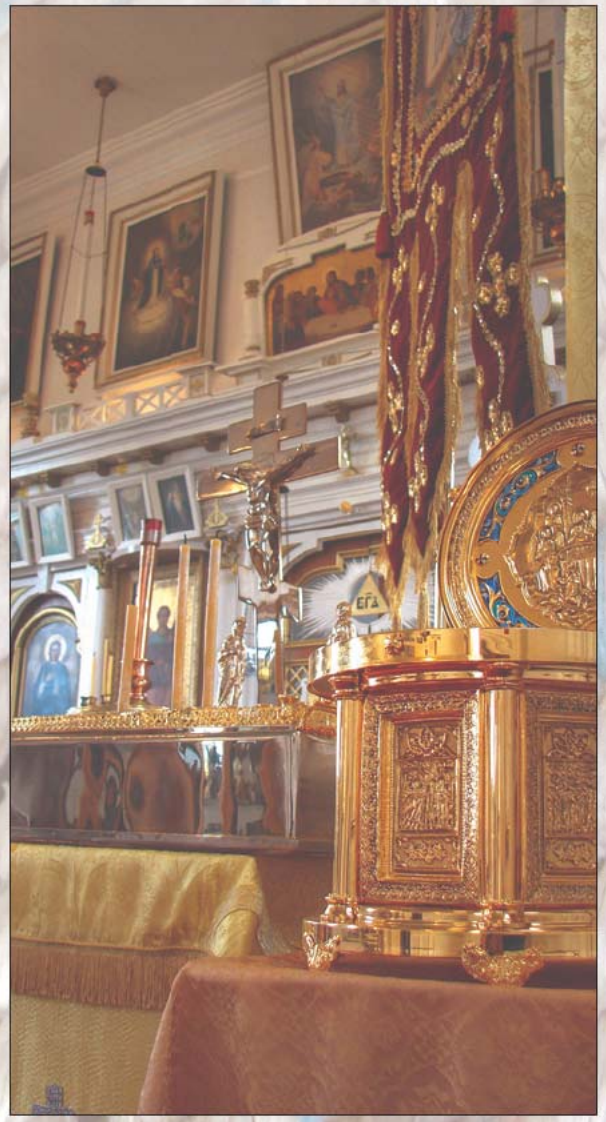

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PLATE
STPL-7
COMMUNITY ATTRIBUTES

Top: TDX museum

Bottom Left: TDX windmill near airport

Bottom Right: Russian Orthodox vestments in TDX museum

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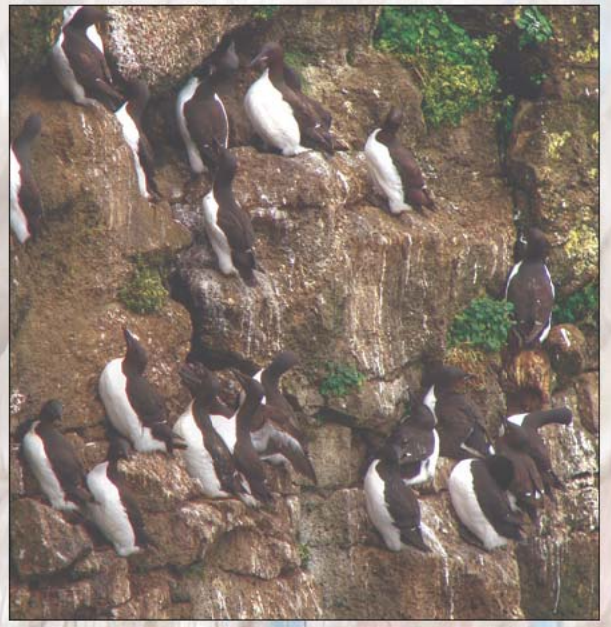
PLATE
STPL-8
COMMUNITY ATTRIBUTES

Top Left: Murres nesting on bluff face

Top Right: Tufted puffin on rocks

Bottom: Fur seal at Tolstoi Rookery



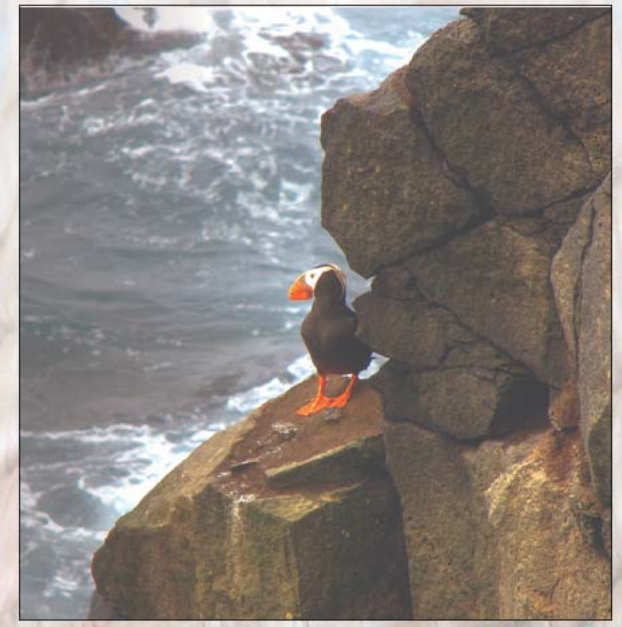


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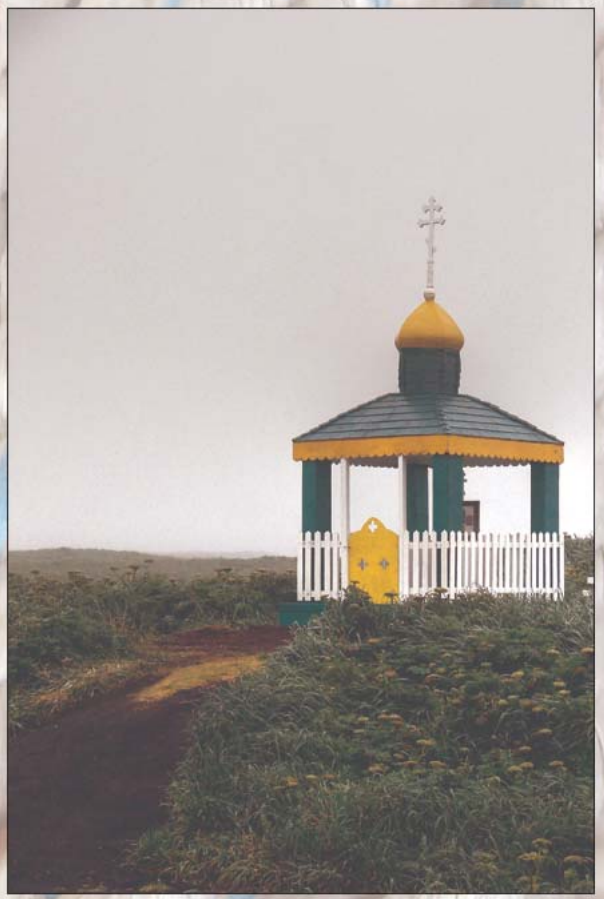
PLATE
STPL-9
COMMUNITY ATTRIBUTES

Top: Cabin at Northeast Point

Bottom Left: Russian Orthodox graves in community graveyard

Bottom Right: Russian Orthodox shrine at Northeast Point



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4.2.3 Age and Sex

Table STPL-3 provides information on the age and the male/female ratio of St. Paul's population in 1990 and 2000. As shown, there was a larger male to female imbalance in 1990 than is seen in 2000. This, like the changes seen in overall population, ethnic composition of the population, and proportion of the population living in group quarters, can be attributed to the lack of a transitory or mobile labor force in 2000, which has resulted in the community having less of an "industrial" or "institutional" type of population and more of a "residential" type of community population.

Table STPL-3. Population by Age and Sex, St. Paul, 1990 and 2000

Attribute	1990		2000	
	Number	Percent	Number	Percent
Male	478	62.6%	294	55.3%
Female	285	37.3%	238	44.7%
Total	763	100%	532	100%
Median Age	NA		31.9 years	

Source: U.S. Census Bureau 2007a, 2007b

The St. Paul school, a part of the Pribilof School District, provides kindergarten through twelfth grade classes. School enrollment figures for the 1993-2008 period are displayed in Table STPL-4, with year dates denoting the end of the school year. As shown, student counts during this span peaked in 1995, and the current (2008 school year) enrollment is about 60 percent of

Table STPL-4. School Enrollment, St. Paul, FY 1993-2008

Fiscal Year	Student Count
1993	118
1994	127
1995	153
1996	141
1997	140
1998	127
1999	121
2000	114
2001	110
2002	116
2003	125
2004	125
2005	115
2006	89
2007	100
2008	89 (estimate)

Note: Fiscal year designation notes the calendar year in school year ended (e.g., 2003 refers to the 2002-2003 school year).
Source: School district staff, personal communication, 2002; J. Stacks, personal communication, 2007

that seen in 1995. Of the 89 students currently enrolled, 80 are children of local residents employed by the major employers on the island, including local, regional, federal, and tribal governments; TDX; CBSFA; PenAir; the local store; and the clinic. Nine students are children of visiting teachers or weather service personnel. As of 2007, there are no children of processor staff enrolled at the school. According to senior school staff, currently there are approximately 11 local residents attending high school "off-island," at Mt. Edgecumbe. Until the early 1990s, the St. Paul school only provided education through the tenth grade, and all eleventh and twelfth grade students attended school off-island. Thus, while there is strong community support for the local school, there is also a strong local tradition of attending high school off-island (Carden, personal communication, 2002). While there are difficulties associated with attending school off-island, some find it attractive due to the opportunity to participate in a wide range of sports, a more diverse curriculum and with more numerous electives and after-school activities, and, as one interviewee described it, the opportunity to date and interact socially with people with whom you are not related.

4.2.4 Housing Types and Population Segments

Group housing in St. Paul has historically been largely associated with federal employment, temporary construction projects, and seafood processing. Federal employment declined significantly prior to 1990, and so is probably not a major component of the population differences between 1990 and 2000. As shown in Table STPL-5, 26 percent of the population lived in group housing in 1990, but only 4 percent did so in 2000. This sharp drop is attributable to a reduction in enumeration of fish processing employees (but whether this was due only to a decline in such activity, or at least partially to change in the timing of such activity, is not clear). It is also likely a function of a decline in "special projects" (with outside workers) as well. Plates STPL-10, STPL-11, STPL-12, and STPL-13 include photographs of different housing types in the community.

Table STPL-5. Group Quarters Housing Information, St. Paul, 1990 and 2000

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	763	196	25.69%	567	74.31%
2000	532	22	4.13%	510	95.87%

Source: U.S. Census Bureau 2007a, 2007b

Table STPL-6 provides 1990 census information on group housing and ethnicity for St. Paul and Table STPL-7 provides similar information for 2000. Housing data from 1990 show two very different demographic sets living in group quarters and non-group quarters housing, which is typical of a community in which commercial processing occurs. Group quarters housing contained 196 individuals, or just over 25 percent of the total number of people in St. Paul. Of these 196 individuals, 52 percent were considered minorities, with 21.4 percent responding as "Asian or Pacific Islander." Meanwhile, in non-group quarters housing, 88.2 percent considered themselves American Indian, Eskimo, or Aleut, contrasted with the 2 percent in group quarters housing. The proportions of whites and blacks were also highly different between the two

ST. PAUL

PLATE
STPL-10
HOUSING TYPES

Top: Newer residential housing across the harbor from the Trident processing plant

Bottom Left and Right: Older residential housing on hill

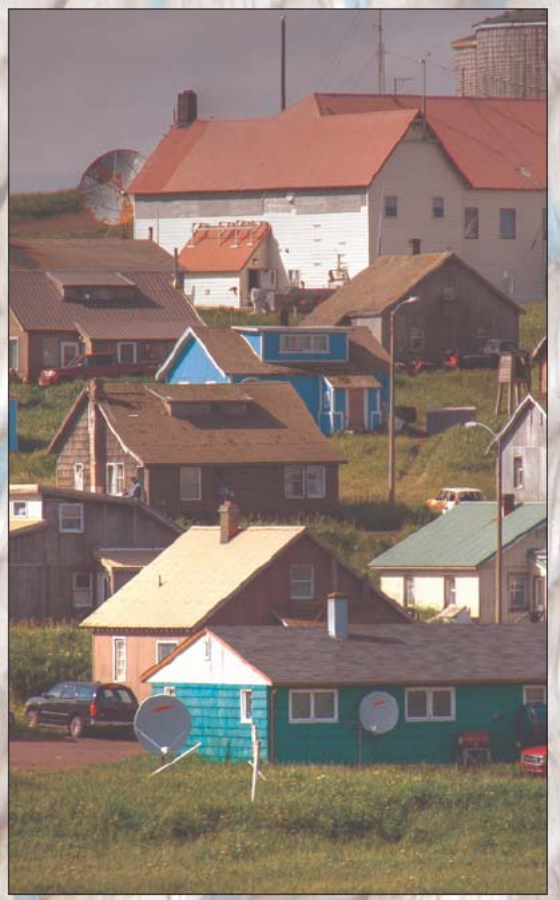

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PLATE
STPL-11
HOUSING TYPES

All: Single-family residences

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PLATE
STPL-12
HOUSING TYPES

All: Single-family residences

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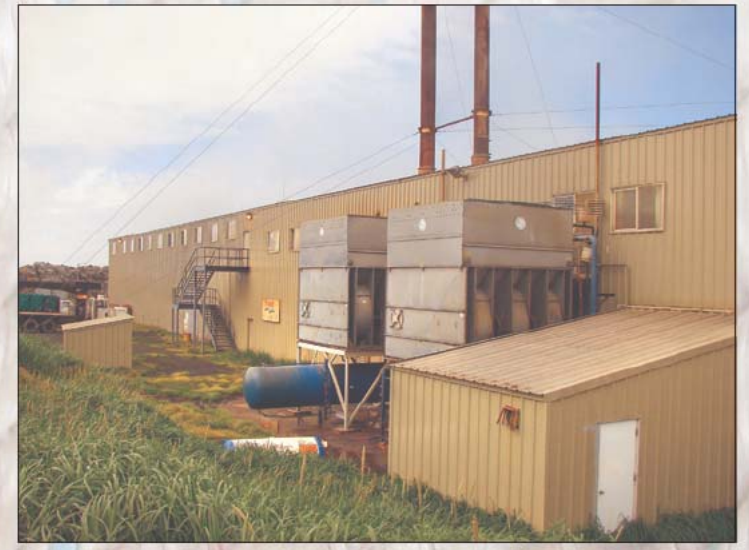
PLATE
STPL-13
HOUSING TYPES

Top Left: Senior citizen group-quarters housing

Top Right: Processor group-quarters housing

Bottom Left: Two-story house

Bottom Right: Duplex residential structure



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housing sets, with whites and blacks in higher proportions in group quarters than in non-group quarters housing.

Table STPL-6. Ethnicity and Group Quarters Housing Information, St. Paul, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	164	21.5%	99	50.5%	65	11.5%
Black or African American	12	1.6%	12	6.1%	0	0.0%
American Indian, Eskimo, Aleut	504	66.1%	4	2.0%	500	88.2%
Asian or Pacific Islander	44	5.8%	42	21.4%	2	0.4%
Other race	39	5.1%	39	19.9%	0	0.0%
Total Population	763	100.0%	196	100.0%	567	100.0%
Hispanic origin, any race	62	8.1%	59	30.1%	3	0.5%
Total Minority Population	605	79.3%	102	52.0%	503	88.7%
Total Non-Minority Population (White Non-Hispanic)	158	20.7%	94	48.0%	64	11.3%

Source: U.S. Census Bureau 2007a

Table STPL-7. Ethnicity and Group Quarters Housing Information, St. Paul, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	69	13.0%	20	90.1%	49	9.6%
Black or African American	0	0.0%	0	0.0%	0	0.0%
American Indian, Eskimo, Aleut	457	86.0%	1	4.5%	456	89.4%
Asian or Pacific Islander	3	0.6%	1	4.5%	2	0.4%
Other race	3	0.6%	0	0.0%	3	0.6%
Total Population	532	100.0%	22	100.0%	510	100.0%
Hispanic origin, any race	0	0.0%	0	0.0%	0	0.0%
Total Minority Population	463	87.0%	2	9.1%	461	90.4%
Total Non-Minority Population (White Non-Hispanic)	69	13.0%	20	90.1%	49	9.6%

Source: U.S. Census Bureau 2007b

Data from 2000, however, do not show this same discrepancy. This is probably due to the timing of the census count during a period of processing inactivity when line workers were underrepresented, as it only showed a total of 22 individuals in group housing, 90.1 percent of whom were white. The non-group quarters housing, however, was relatively similar to the data seen for 1990; the large majority of total population was composed of American Indian, Eskimo, and/or Aleut individuals (at 89.4 percent), whites made up around a tenth of the total non-group quarters population, and a small number of other minorities rounded out the total.

Contemporary (2007) group quarters housing is provided by the local processor, Trident, in a building attached to the plant adjacent to the harbor. Non-group quarters housing (unaffiliated with the processor) is located to the south and east of the harbor. Housing styles range widely,

from some of the oldest remaining homes on the island (located directly uphill from the harbor and surrounding the church), to homes built in the 1960s in an area known as "Uptown." A set of new homes are located north of Uptown. Older St. Paul residents largely live in the older homes near the center of town, convenient to the church, store, and harbor. Younger families generally live in Uptown and in the newer housing north of the clinic and east of Village Cove. Demand for housing, particularly in downtown, is high, with many new families living temporarily with relatives or in housing too small to fit their needs. While there is some vacant housing in the community, these structures are generally in disrepair and not suitable for occupancy without substantial improvements.

Table STPL-8 displays basic information on community housing, households, families, and median household and family income for St. Paul in 2000, including a statistic on vacant housing. The median household and median family income is lower for St. Paul than for the other communities profiled in this volume. However, St. Paul residents interviewed suggest that the quality of living has improved over the years and that people can currently make ends meet easily on St. Paul. Fishermen are reported to be the most successful people on the island, even if work is seasonal, with many people interviewed citing the successful management of the local CDQ by the CBSFA as a key reason.

Table STPL-8. Selected Household Information, St. Paul, 2000

Community	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
St. Paul	214	37	177	2.88	$50,750	123	3.44	$51,750

Source: U.S. Census Bureau 2007b

4.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

The federally controlled fur seal industry dominated the economy of St. Paul until the mid-1980s. The presence of large seal and bird populations still contribute to the local economy, as the rookeries and more than 210 species of nesting sea birds continue to attract tourists to the island. Tourism information from TDX shows that, since 2002, the number of annual visitors to St. Paul have numbered between 180 and 291. The number of visitors was reportedly higher (in the 400s) in the early 2000s, but tourism in St. Paul has apparently never fully recovered from two events: the discontinuation of the use of larger aircraft for scheduled passenger service to the island that occurred when long-time regional carrier Reeve Aleutian Airways went out of business (2000) and the sharp dip in tourism that followed the September 11th terrorist attacks (2001). Both of these events also corresponded with the local "crab crash" described elsewhere.

There is also a reindeer herd on the island, a remnant from a previous commercial venture. Residents utilize halibut, fur seals (1,645 may be taken each year), reindeer, marine invertebrates, plants, and berries for subsistence. Locally obtained subsistence resources are shared and exchanged with relatives and friends living in other communities, sometimes in return for subsistence resources obtained elsewhere, such as salmon.

The overall importance of the commercial fishery to the community may be seen in the fact that the local raw fish tax is the largest single local source of funds for the City of St. Paul. In terms of the relative importance of individual species, opilio crab is by far the most important commercial species for St. Paul processors and thus for revenues for the City of St. Paul, although it is not an important species for the individually owned local catcher fleet. Due to the recent drastic reduction in opilio stocks (and quotas) starting in 2000, St. Paul has also recently shared in the receipt of Opilio Crab Disaster Funds, as has the Aleut Community of St. Paul (the local Indian Reorganization Act [IRA] village tribal entity) and the CBSFA.

All local commercial vessels are part of the CBSFA and participate in IFQ and CDQ day fisheries during halibut season. As is described in more detail below, the CBSFA purchases halibut from the local fleet and custom processes the product through an agreement with the local Trident processing plant. The Trident plant also directly purchases some IFQ halibut harvested by local residents, and otherwise obtains halibut from vessels from outside of the community. The Trident plant, in addition to this halibut activity during the summer months, also processes king crab and opilio crab in the autumn and winter, respectively. Opilio season is the most demanding, regularly employing 200 processors for a span of 3 months. Icicle Seafoods, though absent from the community in 2007, processed crab aboard a floating processor in St. Paul harbor in 2008.[30]

In recent years, economic activity associated with harbor development in the support of commercial fishing has been quite important, and especially so in conjunction with the local development of those fisheries. St. Paul, as a CDQ community, has a viable opportunity to partner with the fishing industry in these ventures. Summary information on local CDQ group-related employment is only available for the years 1993 through 2005 and ranged from 3 in 1993 to 93 in 2005, with average earnings per person in 2005 at $28,875 (cdqdb.org 2007; CBSFA 2006).

Other principal employers in St. Paul include the local, federal, and tribal governments; TDX and its subsidiaries; CBSFA; school; clinic; and AC Value Center. Small, private businesses are not currently present on St. Paul (2007), although a few small restaurants or convenience stores have existed in the recent past. Interviewees cite high rental rates and inexperienced management as two factors contributing to a lack of small private businesses in St. Paul. Employment figures for St. Paul from 1990 and 2000 are presented in Table STPL-9.

Table STPL-9. Estimated Employment and Poverty Information, St. Paul, 1990 and 2000

Year	Total Persons Employed	Total Persons Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
1990	388	40	7.0%	32.6%	148	7.1%
2000	258	40	9.1%	41.5%	143	11.9%

Source: U.S. Census Bureau 2007a, 2007b

[30] Information on 2008 activities was provided by CBSFA during the document review period and is thus more recent that other data in this document.

The following detailed discussion of the fishing industry is divided into the harvesting, processing, and support services sectors.

4.3.1 Harvesting

Community Fleet Quantitative Description

The information presented in Tables STPL-10 through STPL-15 and the accompanying text in this section is parallel in output and data sources for analogous sections in the other community profiles presented in this document (Sand Point, Adak, and St. George) and allow for direct comparability of information between the communities. Additional and different information, specifically on the St. Paul halibut fishery, however, was obtained from the CBSFA during the document review period and provides a finer-grained look at the local St. Paul halibut harvest fleet and associated landings, employment, and income. This information is presented in Tables STPL-16 and STPL-17 and accompanying text at the end of this section.

Table STPL-10 provides information on the characteristics of vessels owned by St. Paul residents for the period 1995 through 2006. This information is collected by the CFEC when vessel owners renew their registration. As shown, the local fleet in St. Paul has declined by almost half since 1995, from 31 to 16 in 2006. A sizeable drop in the number of vessels occurred between 2003 and 2004. For the last 7 years, all registered vessels have actively fished. The breakdown in size, with all vessels for the latest year less than 50 feet, is typical of a local fleet owned by community residents. The average age shows that the local fleet has generally aged with the community, with some newer vessels entering into the community. Aluminum-hulled vessels have become proportionately more common in recent years, with only three vessels in 2006 with fiberglass or plastic hulls. The last wooden-hulled vessel left the local fleet after the 2003 season. The daily nature of the fishery is also suggested in the data by the fact that all but one vessel lacked refrigeration from 2002 to 2006.

In addition to vessel ownership information, data on permit holders for St. Paul provide a perspective on local harvester engagement in various fisheries. Table STPL-11 shows the number of persons in the community who own permits in one, two, three, or all four of the major fishery groups in Alaska, by year, for the period 1995 through 2006. Table STPL-12 shows the percentages of all permit holders who owned permits in the different combinations listed. (Additional information on permit holders by community may be found in Appendix A.) As shown, the number of permits had stayed relatively consistent from 1995 to 2003, with a slight drop in 2004. Most permits in St. Paul have been given for the groundfish fishery, but one community resident in 2006 had a permit in the salmon fishery as well. The data show that, since 1995, the vast majority of permit holders in St. Paul have had only one permit.

Summary catch and earnings estimates for the community may be made through using the annual CFEC data report called "Permit and Fishing Activity by Year, State, Census Division or Alaskan City." Table STPL-13 aggregates and summarizes estimated landings and gross revenue data for St. Paul into 14 gear and species groups for the years 1995 through 2005. (Note that this table, unlike the previous table, displays the number of permits held, not the number of permit holders.) Where the number of permits in any group is less than that required to permit disclosure of actual data, an algorithm was used to produce "reasonable estimates" of total catch

Table STPL-10. Characteristics of Vessels Owned by Residents of St. Paul, 1995-2006

Characteristics	Year											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Number of Vessels	31	32	27	29	27	28	27	25	24	16	15	16
Number of Vessels Fishing	30	31	26	28	26	28	27	25	24	16	15	16
Number of Vessels By Size												
0-26 feet length overall	22	21	18	19	17	17	15	11	10	5	5	6
27-32 feet length overall	7	9	9	8	9	9	9	11	11	10	9	8
33-49 feet length overall	2	1	-	1	1	1	3	3	3	1	1	2
50-59 feet length overall	-	1	-	1	-	1	-	-	-	-	-	-
60-124 feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
125+ feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
Average Age of Vessels (years)	9	10	11	12	12	13	14	16	17	16	18	19
Number of Vessels by Hull Type												
Aluminum	22	23	21	20	19	21	19	18	18	14	13	13
Fiberglass/Plastic	6	6	5	7	6	5	6	5	5	2	2	3
Rubber	-	-	-	-	-	-	-	-	-	-	-	-
Iron/Steel/Alloy	1	1	-	-	-	-	-	-	-	-	-	-
Wood	2	2	1	2	2	2	2	2	1	-	-	-
Number of Vessels with Refrigeration	-	-	-	1	-	1	-	1	1	1	1	1
Number of Vessels Using Diesel	10	10	8	9	8	10	10	11	12	10	9	10

Note: CFEC analysts provided vessel registration data of all resident vessel owners by community and year. Vessel registration data are available on the internet at www.cfec.state.ak.us/fishery_statistics/vessels.htm. The data were summarized by Northern Economics, Inc.
Source: CFEC Vessel Registration Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table STPL-11. Distribution of Permit Holders across Fisheries for St. Paul, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in Only One Major Fishery Group												
Salmon (SM)	0	1	1	0	0	0	0	0	0	0	0	0
Groundfish (GF)	0	0	0	0	0	0	0	0	0	0	0	0
Halibut and Sablefish (HS)	23	28	26	27	29	24	28	28	24	19	19	20
Crab/all other species (CO)	1	0	0	1	0	0	0	0	0	0	0	0
Persons with Permits in Two Major Fishery Groups												
SM, HS	1	1	1	1	1	1	1	1	1	1	1	1
SM, GF	0	0	0	0	0	0	0	0	0	0	0	0
SM, CO	0	0	0	0	0	0	0	0	0	0	0	0
HS, GF	0	0	0	0	0	4	2	0	0	0	0	0
HS, CO	2	2	2	2	1	1	0	0	0	0	0	0
GF, CO	0	1	0	0	0	0	0	0	0	0	0	0
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	0	0	0	0	0	0	0	0	0	0	0	0
SM, HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
HS, GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Total of All Permit Holders												
All Fisheries	27	33	30	31	31	30	31	29	25	20	20	21

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table STPL-12. Percentage Distribution of Permit Holders across Fisheries for St. Paul, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in only One Major Fishery Group												
Salmon (SM)	-	3%	3%	-	-	-	-	-	-	-	-	-
Groundfish (GF)	-	-	-	-	-	-	-	-	-	-	-	-
Halibut and Sablefish (HS)	85%	85%	87%	87%	94%	80%	90%	97%	96%	95%	95%	95%
Crab/all other species (CO)	4%	-	-	3%	-	-	-	-	-	-	-	-
Subtotal, One Fishery Group	-	-	-	-	-	80%	90%	97%	96%	95%	95%	95%
Persons with Permits in Two Major Fishery Groups												
SM, HS	4%	3%	3%	3%	3%	3%	3%	3%	4%	5%	5%	5%
SM, GF	-	-	-	-	-	-	-	-	-	-	-	-
SM, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF	-	-	-	-	-	13%	6%	-	-	-	-	-
HS, CO	7%	6%	7%	6%	3%	3%	-	-	-	-	-	-
GF, CO	-	3%	-	-	-	-	-	-	-	-	-	-
Subtotal, Two Fishery Groups	-	-	-	-	-	20%	10%	3%	4%	5%	5%	5%
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	-	-	-	-	-	-	-	-	-	-	-	-
SM, HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Three Fishery Groups	-	-	-	-	-	-	-	-	-	-	-	-
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Total of All Permit Holders												
All Fisheries	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

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Table STPL-13. Summary Catch and Earnings Estimates for St. Paul Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Held											
Halibut	32	36	34	34	37	35	36	32	28	22	21
IFQ Sablefish	-	-	-	-	-	1	1	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	1	-	-	-	-	-	-	-	-	-
Salmon Set Net	1	1	1	1	1	1	1	1	1	1	1
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	2	2	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	1	-	-	-	3	1	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	1	-	-	-	-	-	-	-	-	-
King Crab	1	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	4	2	2	2	1	1	-	-	-	-	-
Total	38	42	37	37	39	43	41	33	29	23	22
Permits Fished											
Halibut	22	27	25	26	27	25	26	24	21	16	17
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	1	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	2	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	1	-	-	-	-	-	-	-	-	-
King Crab	-	-	1	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	22	28	27	26	27	27	26	24	21	16	17

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Table STPL-13. (continued)

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Landings (pounds)											
Halibut	409,081	451,296	713,916	734,276	1,066,980	957,129	1,056,277	657,537	434,744	435,264	467,478
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	3,469	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	69,949	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	6,932	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	409,081	451,296	724,317	734,276	1,066,980	1,027,079	1,056,277	657,537	434,744	435,264	467,478
Estimated Gross Revenue (dollars)											
Halibut	$719,985.07	$875,021.25	$1,307,873.19	$623,536.00	$1,346,335.17	$1,718,127.31	$1,839,098.90	$840,934.78	$808,333.00	$1,150,403.00	$1,075,199.00
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	$7,007.50	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	$23,397.33	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	$22,056.00	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$719,985.07	$875,021.25	$1,336,936.69	$623,536.00	$1,346,335.17	$1,741,524.65	$1,839,098.90	$840,934.78	$808,333.00	$1,150,403.00	$1,075,199.00
Total in 2005 Constant Dollars	$922,658.03	$1,089,175.59	$1,626,814.55	$747,095.59	$1,578,266.86	$1,741,524.65	$2,029,243.02	$912,921.41	$857,975.19	$1,189,379.07	$1,075,199.00

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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and earnings. (A more detailed explanation of the algorithm methodology is provided in Appendix A.) These data make clear that St. Paul is focused on halibut; of the 22 permits held for 2005, 17 were halibut permits that were fished. A total of 467,478 pounds of halibut were landed in 2005, for an estimated gross revenue of $1,075,199. This is less than estimated annual revenues from 1999 through 2001, but greater than those of 2002 and 2003, and comparable to the estimated gross revenue for 2004.[31]

Table STPL-14 provides estimates of the percentage of nonconfidential gross revenue for St. Paul permit holders by species group, by year, for the period 1995 to 2005. These data provide one type of fundamental measure of "dependency" on community harvesters on particular fisheries. The data suggest that, since 2001, the St. Paul local fleet has been entirely dependent on the halibut fishery, which has recently been bringing in over $1 million into the local economy. While crab, groundfish, and salmon have affected the gross revenue in the past, halibut has become the fishery of choice for St. Paul in recent years.

Communities also directly benefit from the harvest sector through participation of residents as crew members as well as through the engagement of vessel owners and permit holders. Beginning in 2000, the CFEC has produced estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a Crew Member License with ADF&G. (A more complete discussion of this methodology may be found in Chapter 1.0.) Table STPL-15 provides estimates of crew members for St. Paul for the years 2000 through 2006. These data should be only taken as a rough indicator of the level of involvement of community members, but they do indicate that a substantial proportion of the total population of the community is engaged in commercial fisheries.

Table STPL-15. Estimated Number of Permit Holders and Crew Members from St. Paul, 2000-2006

Year	Permit Holders	Crew Members	Total
2000	30	3	33
2001	CFEC did not report data for 2001		
2002	29	43	72
2003	25	32	57
2004	20	31	51
2005	20	31	51
2006	22	31	53

Source: CFEC 2007b

In addition to the CFEC data, information specific to local fleet halibut activity has been made available by the CBSFA which covers CBSFA Halibut Cooperative employment, landings, and income data, as well as information on local halibut fishery direct support service employment. In some cases, these data do not correspond well to CFEC data. For example, according to CBSFA comments provided on an earlier draft of this report,

[31] Note that CBSFA data provided during the document review process and presented at the end of this section describes a different pattern of relative annual returns.

> We have always had to deal with different halibut weights data used by the government and weights we use to actually pay the fishermen. E.g., when halibut are delivered at the dock and weighed in a brailer during offloading, a landing report is submitted to NMFS via a system that automatically deducts for heads, ice and slime. Then the processor cuts the head off, cleans the fish and weighs each fish individually and enters this new weight onto a fish ticket …which is usually less than the landing report for various reasons, one is the angle they cut the heads off for different products. The after-processing weight is used on the CBSFA data report because it is the weight we use to pay the fishermen. (CBSFA comment provided via e-mail, 4/16/08)

Table STPL-16 displays information on St. Paul local halibut fleet count of vessels, persons employed, landings, income, and ex-vessel prices for the years 1998 to 20007 as supplied by the CBSFA. There are several things to note about how these data differ from the CFEC data that were used in previous tables in this section. For example, Table STPL-13, based on estimates calculated off CFEC data, estimates that in 2005 St. Paul halibut fishermen had less financial return on halibut that they were have estimated to have had on an annual basis during the period 1999 to 2001. CBSFA data, on the other hand, as shown in Table STPL-16, indicate that there was more income derived from halibut landings in 2005 than in any previous year included in the table.

Table STPL-16. St. Paul Local Halibut Fishery: CBSFA Count of Vessels, Persons Employed, Landings, Income, and Ex-Vessel Prices, 1998-2007

Year	Number of Vessels	Number of Persons Employed	Local Vessel Landings (lbs)	Income	Ex-Vessel Price per Pound
1998	22	111	714,764	$553,942	0.78
1999	27	122	912,639	$1,095,000	1.18
2000	25	116	913,275	$1,656,090	1.81
2001	24	131	910,931	$1,357,389	1.50
2002	21	106	609,563	$837,328	1.48
2003*	19	105	412,160	$1,073,842	2.60
2004	13	58	325,707	$902,211	2.77
2005	14	66	441,398	$1,946,565	4.41
2006	15	75	512,268	$2,515,236	4.91
2007	15	85	562,264	$3,261,131	5.80

*The CBSFA Halibut Cooperative began operations and purchased local halibut in 2003, and has been the primary buyer or local halibut since then. Prior to 2003, other buyers purchased all local halibut.
Source: CBSFA spreadsheet supplied via e-mail, 4/16/08.

It is also important to note that there are also differences between CFEC crew numbers, shown in Table STPL-15, and the halibut fishery employment numbers supplied by CBSFA. This is due, in part, to the way that the CBSFA counts fishery employment. For example, CBSFA data counts on-shore baiters as having jobs in the local halibut fishery, but since baiters don't need crew member licenses, the CFEC crew data does not encompass these jobs. Further, according to CBSFA review comments on the draft version of this document, "it may be that not all our

Table STPL-14. Percentage of Gross Revenue Estimates for St. Paul Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Gross Revenue (dollars)											
Halibut	$719,985.07	$875,021.25	$1,307,873.19	$623,536.00	$1,346,335.17	$1,718,127.31	$1,839,098.90	$840,934.78	$808,333.00	$1,150,403.00	$1,075,199.00
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	$7,007.50	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	$23,397.33	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	$22,056.00	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$719,985.07	$875,021.25	$1,336,936.69	$623,536.00	$1,346,335.17	$1,741,524.65	$1,839,098.90	$840,934.78	$808,333.00	$1,150,403.00	$1,075,199.00
Total in 2005 Constant Dollars	$922,658.03	$1,089,175.59	$1,626,814.55	$747,095.59	$1,578,266.86	$1,741,524.65	$2,029,243.02	$912,921.41	$857,975.19	$1,189,379.07	$1,075,199.00
Percentage of Estimated Gross Revenue											
Halibut	100.00%	100.00%	97.83%	100.00%	100.00%	98.66%	100.00%	100.00%	100.00%	100.00%	100.00%
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	0.52%	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	1.34%	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	1.65%	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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crew members buy crew licenses, as they should, which cost $60, so they are overlooked by CFEC" (CBSFA via e-mail 4/18/08). Table STPL-17 displays information on additional local St. Paul employment and wage income that the CBSFA directly attributes to the local halibut fishery, broken out into subcategories, for the most recent year available (2007). These data have no counterpart in the CFEC data. Despite whatever differences exist in data sources, however, it is clear that the CBSFA Halibut Cooperative is an important source of employment and income for St. Paul residents.

Table STPL-17. St. Paul Local Halibut Fishery and Related Direct Support Services: CBSFA Count of Employment by Type and Associated Wages, 2007

Type of Employment	Number of Positions/People Employed	Wages
Local Halibut Fishery	85	$3,261,131
Dock Launch & Retrieval	13	$8,853
Crane Operator	4	$7,545
Dock Security	8	$10,903

Source: CBSFA spreadsheet supplied via e-mail, 4/16/08.

Spatial Distribution of Harvester Effort

Figure STPL-1 provides information on the spatial distribution of halibut catch for vessels owned by St. Paul residents for all gear types for the years 1996 to 2005. Figures STPL-2, STPL-3, and STPL-4 show the spatial distribution of catch for halibut in intervals within this same overall time period. Before 2000, halibut catch was tracked either by standard groundfish statistical area or by IPHC statistical areas. Thus, for a complete picture of the halibut catch for the years before 2000, both tracking systems must be displayed. The spatial distribution of effort is localized to the area directly surrounding the island of St. Paul, regardless of time period or statistical tracking system. This is indicative of a day fishery. It is important to note that fishing is likely not limited to this one statistical area, however, with the possibility that a small number of vessels (subject to confidentiality restrictions) could be traveling further afield.

Community Harvester Characterization

The local fishing fleet focuses solely on halibut in the local area, which includes halibut areas 4C and 4D. While there is some interest in cod fishing and crabbing, logistical problems surrounding government observers and the cost of crab vessels, permits, and/or gear have functioned to make these fisheries impractical to date for local vessel owners or residents. The origin of the local halibut fleet can be traced back to TDX, which fostered the growth of this fleet, beginning in 1981, by providing loans for boats and, in the early years, operating a facility to buy and process the halibut.

According to the CFEC, there were 22 permit holders in St. Paul in 2006, although CBSFA representatives suggest that as many as 43 individual cardholders can participate in the CDQ

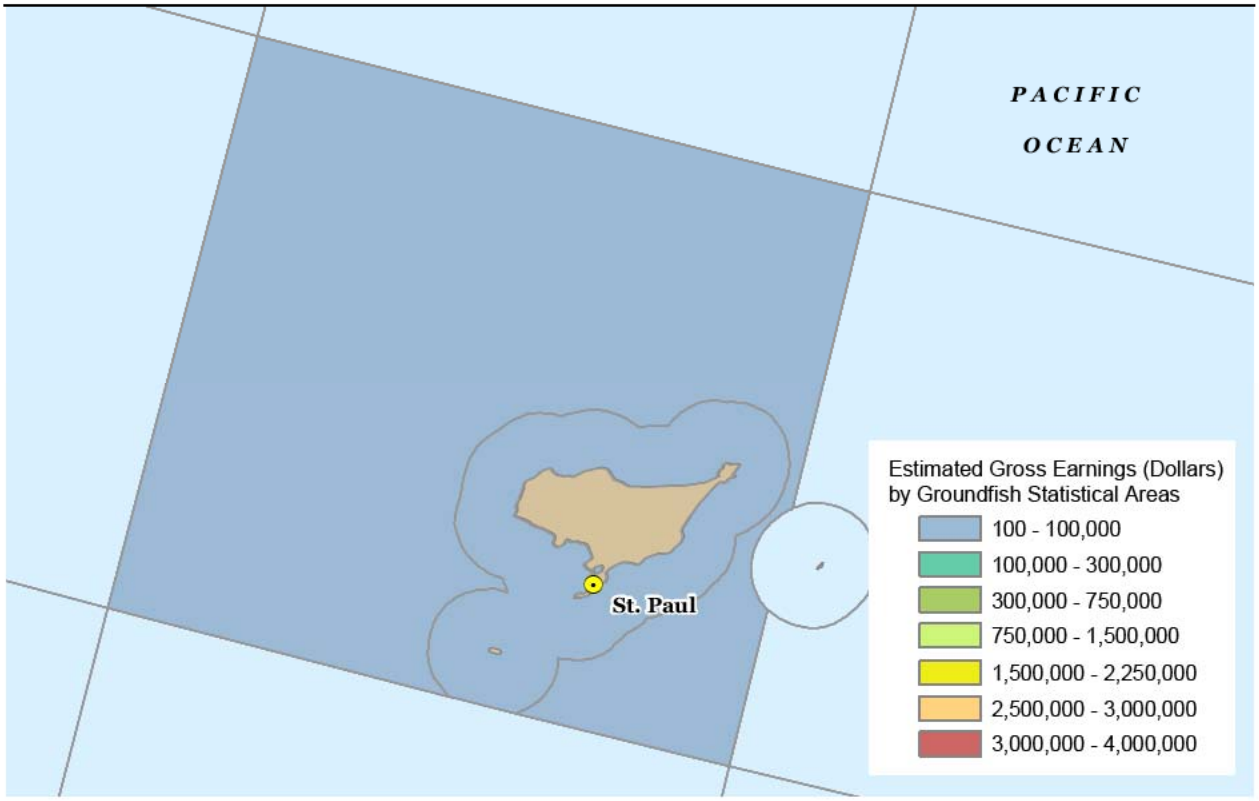
program at any one time. At the time of fieldwork (2007), 15 local vessels were actively engaged in the halibut fishery, although that number can be as high as 24 depending on the season. Most local boats are in the 22- to 26-foot range, with 34 feet being considered "large" for a local boat. The largest boat in the fleet is a 41-foot vessel, and one of the most productive vessels is 36 feet. Vessels under 41 feet are tax exempt. Historically, the fleet also included quite small skiffs fished only in very good weather. Today (2007), however, the commercial vessel fleet is composed of this 22- to 41-foot fleet. In terms of gear differentiation by vessel size, a 34-foot boat can handle a self-baiting system for halibut fishing, while smaller boats cannot. Generally, however, halibut baiting is still done by hand and it is common for younger children, family members, and individuals interested in the fishery but unable to go to sea (due to age, physical ability, or propensity for seasickness) to spend the early evening baiting hooks for the next day.

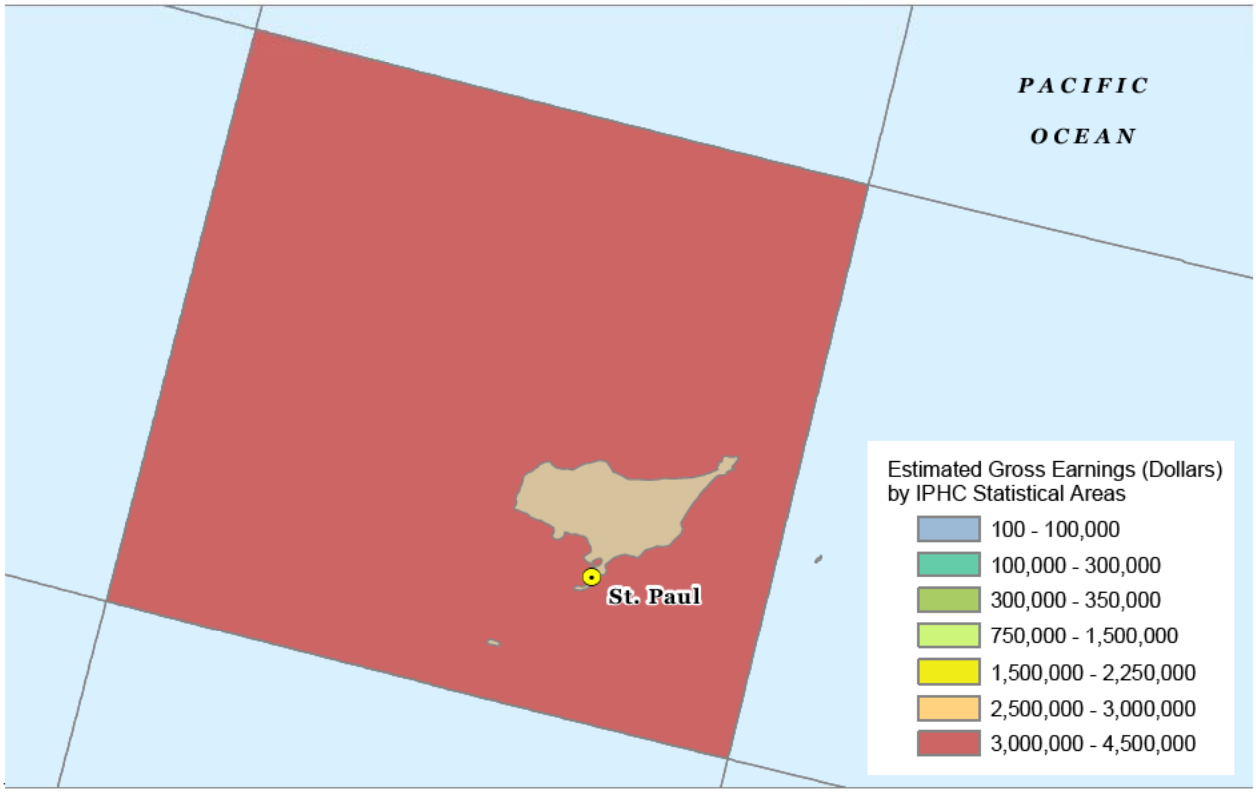
The local halibut fishery is considered a day fishery, meaning that fishermen fish daily and come back to shore every night, starting around 6:00 to 7:00 a.m. and arriving back to port sometime before 10:00 p.m., depending on weather and the success of the daily catch. Windy days, particularly if the wind is over 20 knots, are considered bad weather and many vessels will remain in port. The summer halibut season is a central organizing activity for the entire community (P. Swetzof, personal communication, 2002), and CDQ halibut is especially important in this regard (Kudrin, personal communication, 2002).

Only local residents are allowed to fish for CDQ halibut, and the CBSFA sets the terms under which they fish. Historically, fishermen were limited to landing 5,000 pounds a day and received payment from the processor minus an approximate 6 percent charge paid to the CBSFA to offset the costs of administering the program. Since 2003, however, the CBSFA has managed a halibut co-op program that is structured differently than the local halibut fishery of the past. The CBSFA now has no daily limit, but does have a vessel limit near 99,100 pounds, although this vessel limit fluctuates depending on the available biomass as determined by fishery managers. Eighty percent of the available halibut CDQ is given to the local fleet and 20 percent is leased to outside longline vessels because the local fleet is unable to fish 100 percent of the CDQ themselves before dangerous weather sets in.[32] The CBSFA purchases the halibut directly from the fishermen at the dock, pays the fishermen an average market price, and custom processes the product through the Trident plant. The halibut is marketed by Trident and sold to the American, Canadian, and Asian markets. Currently (2007), CBSFA halibut was being sold in Costco stores in the form of frozen breaded fillets. Profits from the halibut pay for all fisherman expenses, custom processing fees, vessel launch and retrieval, and dock security and maintenance. After these costs are removed, 100 percent of the remaining profits are distributed to the vessel captains in the form of retroactive payments, or "retros." These retros usually arrive as ex-vessel prices are adjusted, with payments arriving after the close of the season, providing a secondary boost to the local economy during the winter.

The halibut season usually starts June 15 and lasts until the quota is reached or the seas become too dangerous for the small vessels, which is usually around late September. In 2005, which is the most recent full year for which data are available, 767,166 pounds of halibut were harvested,

[32] This arrangement is temporary, however, and local community members suggest that a perfect scenario would be to harvest 100 percent of the available CDQ from local boats. To this end, the CBSFA may purchase a 58-foot vessel to fish the remaining CDQ, all local IFQ, and even expand into Pacific cod and bairdi crab.





Source: NOAA 2003; Northern Economics 2007

10 5 0 10 Miles

Scale = 1:715,000 1 inch equals approx. 10 miles

Figure STPL-1
Commercial Halibut Catch for Vessels Local to St. Paul, All Gear Types, 1996 - 2005

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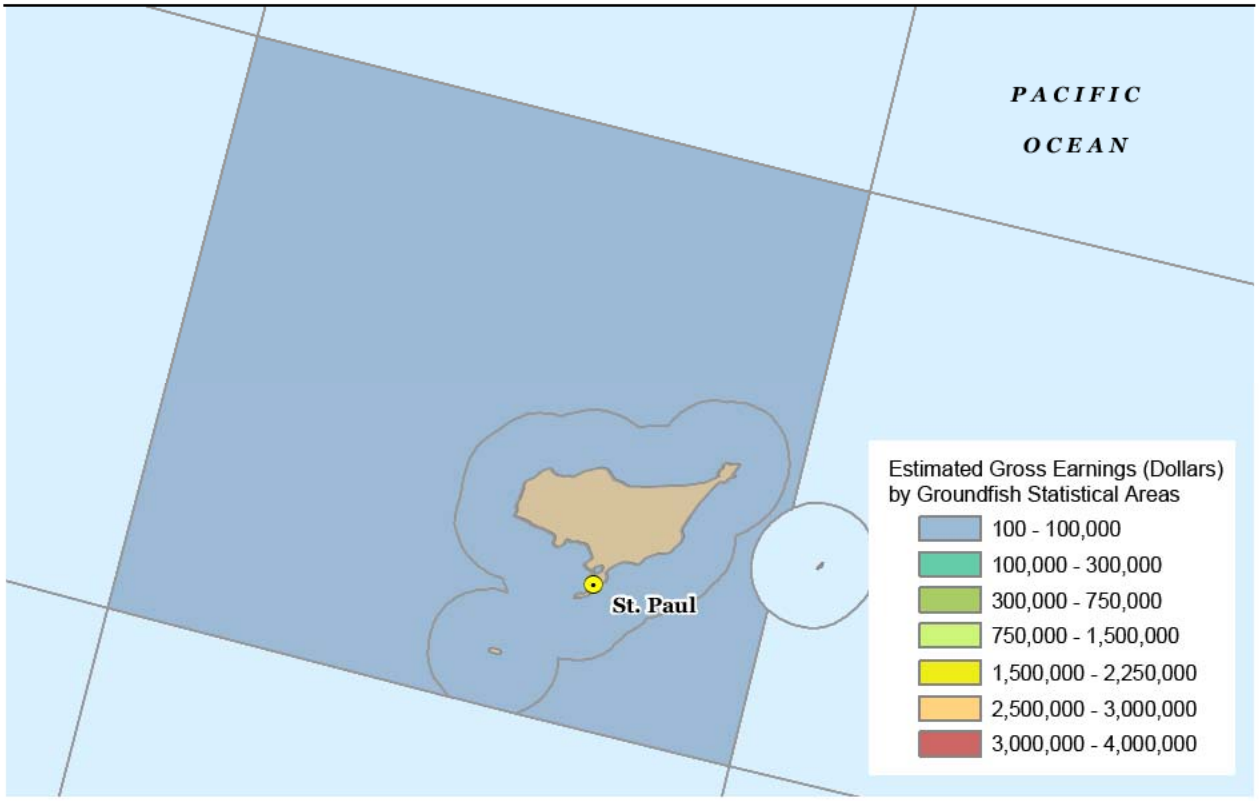

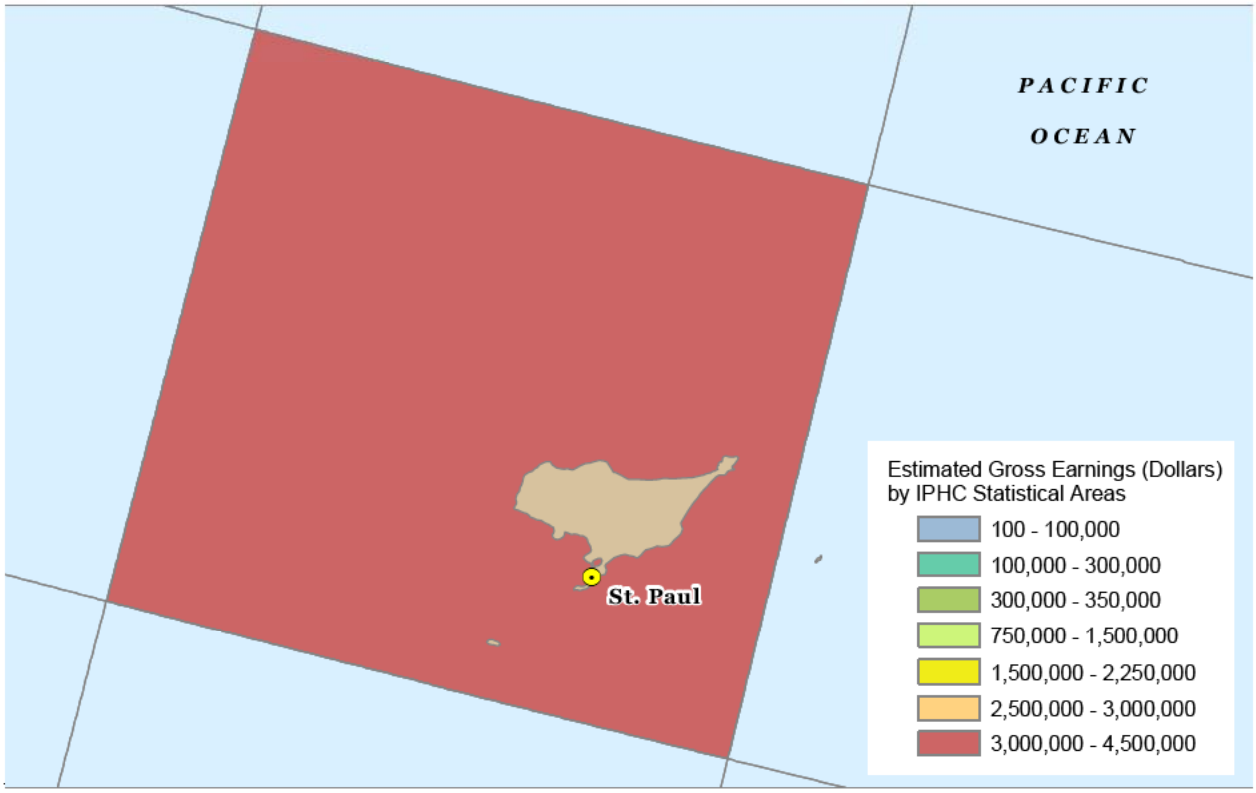

Source: NOAA 2003; Northern Economics 2007

10 5 0 10 Miles

Scale = 1:715,000 1 inch equals approx. 10 miles

Figure STPL-2
Commercial Halibut Catch for Vessels Local to St. Paul, All Gear Types, 1996 - 1999

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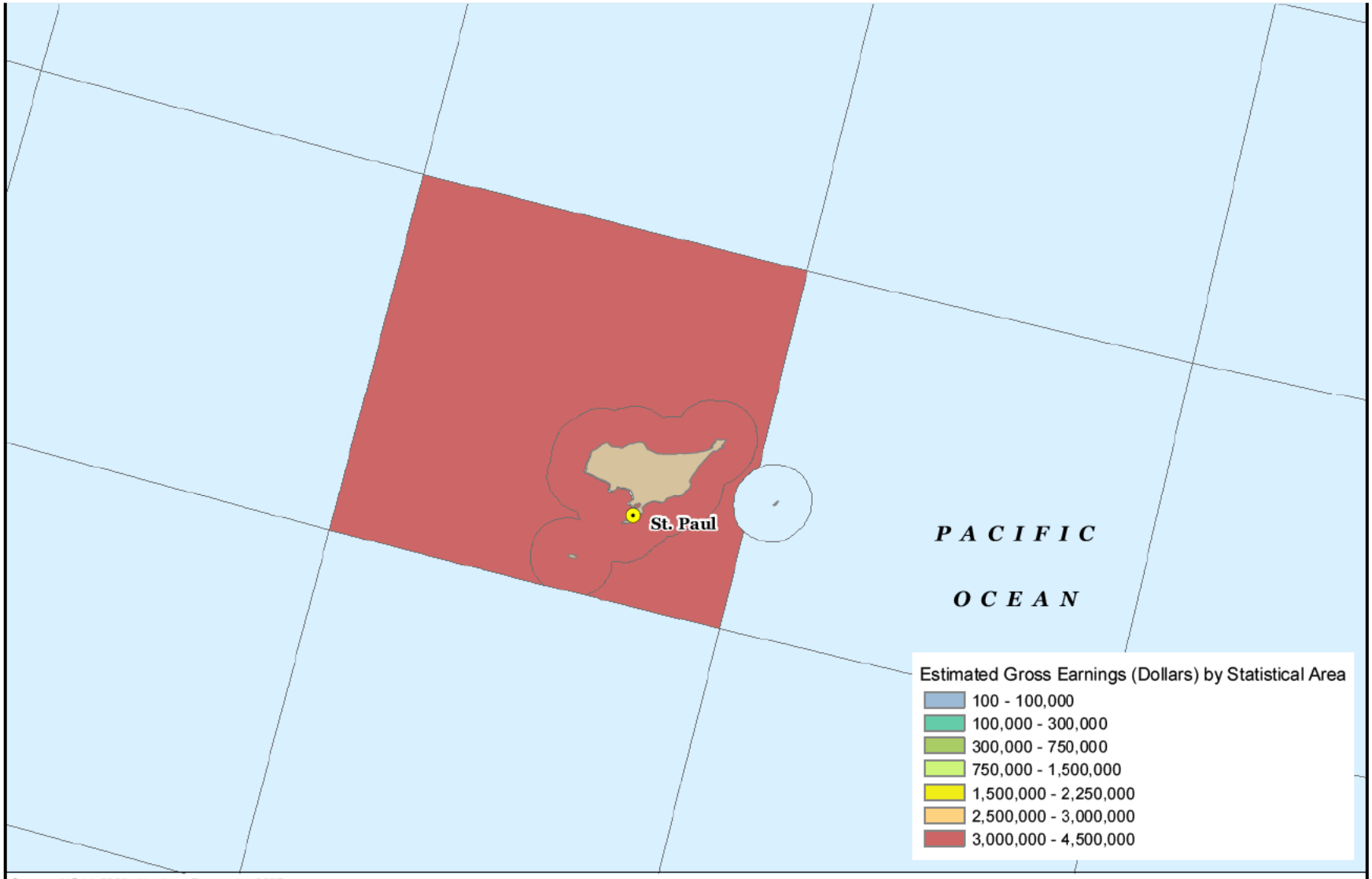

Source: NOAA 2003; Northern Economics 2007

7 3.5 0 7 14 Miles

Scale = 1:900,000 1 inch equals approx. 14 miles

Figure STPL-3
Commercial Halibut Catch for Vessels Local to St. Paul, All Gear Types, 2000 - 2002

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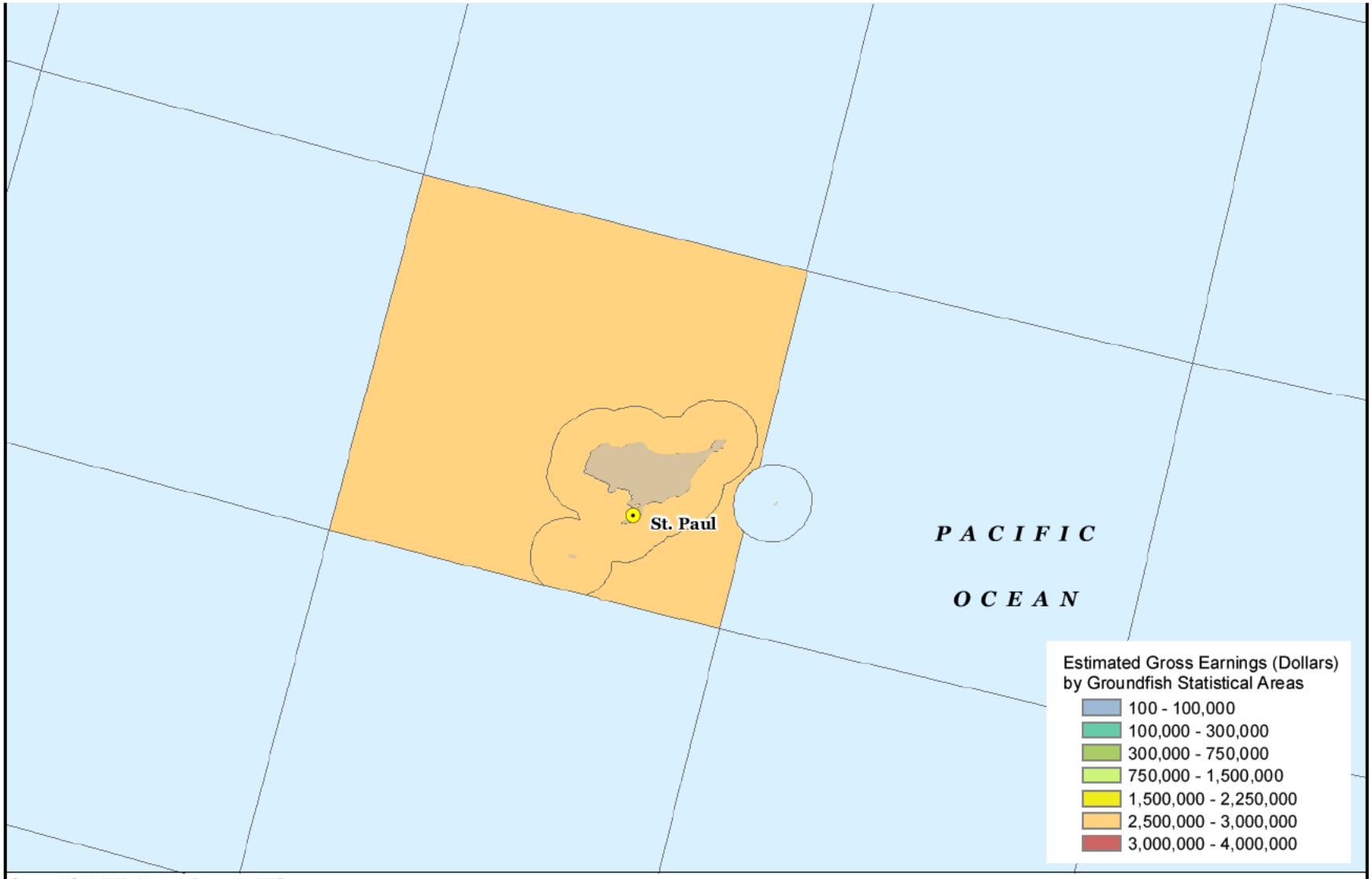

Source: NOAA 2003; Northern Economics 2007

7 3.5 0 7 14 Miles

Scale = 1:900,000 1 inch equals approx. 14 miles

Figure STPL-4
Commercial Halibut Catch for Vessels Local to St. Paul, All Gear Types, 2003 - 2005

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representing 99.5 percent of the CDQ allocation. The highest producers in the fleet are limited by the vessel cap, but only one vessel is reported to regularly hit the cap. Even the participants with the lowest seasonal totals still all harvested well over 5,000 pounds each. Recently passed amendments to the halibut and sablefish IFQ program gave local fishermen with IFQ, estimated to be around 15 individuals, the opportunity to fish their quota off of larger vessels in Area 4D. This area has been more productive than 4C in recent years, and there is a common perception that Area 4C has been overfished and that environmental changes are forcing halibut to move.

In the recent past, local fishermen were also interested in developing a local cod fishery and have sold a limited amount of cod caught as by-catch in the halibut fishery to various processors. Cod is not yet a target fishery for the local fleet, although its development has historically been one of the long-term goals stated in the CBSFA's quarterly CDQ reports to the State of Alaska. The Trident plant in St. Paul has processed cod, although this cod was purchased primarily (or exclusively) from non-local boats. As stated above, however, the cod fishery is now perceived as being logistically challenging for the local fleet, necessitating larger vessels and the management of government observers. Pollock could also be potentially profitable in St. Paul according to local sources, but processing outfall and its possible effect on the sensitive seal and bird species around the island are reportedly precluding any direct local participation in this fishery. There are other fisheries of interest to the local fleet, such as the hair crab fishery, which has been profitable in the past. However, hair crab is a closed species due to low biomass, preventing entry.

In St. Paul, the CBSFA has utilized the economic returns of the CDQ program to, among other things, expand involvement in other fisheries through targeted investment as well as through direct participation to a limited degree. The CDQ program, which was implemented in 1992 as part of the groundfish management changes of Inshore/Offshore-1, allocated a percentage of the pollock quota to CDQ communities to aid in economic development through involvement in Bering Sea commercial fisheries. St. Paul is the only community that is the sole member of its own CDQ group (the CBSFA). The CDQ program expanded in 1998 to a number of other species, including crab, in addition to pollock. Table STPL-18 presents the overall CDQ allocations for the CBSFA for the last year available (2007). In addition to the figures shown on the table, CBSFA is allocated 85 percent of the total Area 4C CDQ halibut allocation (with APICDA, representing St. George, getting the remaining 15 percent). CBSFA's portion of the 2007 Community Development Plan Halibut Allocation of Area 4C CDQ halibut was 793,262 pounds (out of 933,250 pounds total).[33]

According to ownership data supplied by NPFMC and Trident staff, all crab deliveries to processors in the Pribilofs are made by non-local boats from communities elsewhere in Alaska and the Pacific Northwest. These data indicate there is little or no local crab fleet in St. Paul; however, there has been recent local investment in crab harvester vessels through the local CDQ group. The CBSFA, through a wholly owned subsidiary called the Multi-Species Development Holdings, LLC (MSDH) currently owns shares in four vessels that concentrate in three main fisheries: crab, pollock, and cod. Table STPL-19 details these assets. MSDH once owned two other crab vessels but recently sold them and transferred their quota to other owned vessels. The

[33] Source: January 23, 2007 memorandum from Jessica Gharrett, Data Manager, Restricted Access Management Program, provided by CBSFA during document review comment process, April 16, 2008.

Table STPL-18. CBSFA CDQ Allocations by Percentage of Total Available CDQ

Species	CBSFA Percentage
CDQ Reserve Category	
BS Pollock	5%
AI Pollock	5%
Pacific Cod	9%
BS FG Sablefish	16%
AI FG Sablefish	3%
BS Sablefish	9%
AI Sablefish	8%
WAI Atka Mackerel	8%
CAI Atka Mackerel	8%
EAI/BS Atka Mackerel	8%
Yellowfin Sole	8%
Rock Sole	8%
BS Greenland Turbot	8%
Arrowtooth Flounder	8%
Flathead Sole	8%
WAI Pacific Ocean Perch	8%
CAI Pacific Ocean Perch	8%
EAI Pacific Ocean Perch	8%
PSQ Reserve Category	
Zone 1 Red King Crab	8%
Zone 1 Bairdi Tanner Crab	8%
Zone 2 Bairdi Tanner Crab	8%
Opilio Tanner Crab	8%
Pacific Halibut	9%
Chinook Salmon	5%
Non-Chinook Salmon	5%

Note: BS (Bering Sea); AI (Aleutian Islands); WAI (Western Aleutian Islands); CAI (Central Aleutian Islands); EAI (Eastern Aleutian Islands)
Source: NMFS 2007a

Table STPL-19. MSDH LLC Vessel Assets

Vessel*	Fishery	Percentage Held
F/V *Fierce Allegiance*	Crab, Pollock, Cod	30%
F/V *Early Dawn*	Crab, Cod	30%
F/V *Starlite*	Pollock, Crab, Cod	75%
F/V *Starward*	Pollock, Crab, Cod	75%

*MSDH also retains BSAI crab harvester quota originally associated with the previously owned, but subsequently sold, F/V *Ballyhoo* and F/V *Shishalidin*. As of June 2008, the CBSFA was also about to take delivery of the 58-foot limit seiner F/V *St. Paul*, which will be skippered and crewed by St. Paul residents.

Source: CBSFA 2007, personal communication 2008

CBSFA also owns a 9.9 percent share in Royal Aleutian Seafoods (recently purchased by UniSea, following the implementation of BSAI crab rationalization), and a 4.54 percent share of American Seafoods.

These investments mean there is a local harvester stake in wider harvest issues, not only those surrounding the halibut fishery. In fact, the success of MSDH and other CBSFA investments has created the financial environment for the above-mentioned halibut co-op to flourish. By investing in the crab, pollock, and cod fisheries, the CBSFA is able to meet their operating costs and generate a profit to the extent that profits from the halibut fishery can be given 100 percent back to the local fishermen. CBSFA profits have also funded the purchase of a crane for the launching and removal of vessels, and the construction of a combination new City fire station and CBSFA crane storage building and partially financed plans for a future, more permanent dock and a preschool Montessori program. Since 1999, CBSFA has also saved (set-aside) $6.5 million to contribute toward the construction of the planned Small Boat Harbor, the next large fisheries development project planned for the community. Other services for the community funded by the CBSFA include scholarships for students, monetary contributions to local youth sports programs, grants for training, low-interest loans for vessel and IFQ purchases, fishery-related research projects, and an annual donation of halibut to community elders. Furthermore, it is not uncommon for at least a few local residents to serve as crew members on larger vessels in which the CBSFA has an ownership stake, so that in most years one or two St. Paul residents earn crew shares in Bering Sea crab fisheries.

Photographs of the local fleet and harvesting effort can be seen in Plates STPL-14, STPL-15, STPL-16, STPL-17, and STPL-18.

4.3.2 Processing

Community Processor Quantitative Description

With only one or two processing entities in St. Paul in recent years, a quantitative description of processor activity cannot be reported due to confidentiality restrictions.

Community Processing Characterization

In terms of the history of local processing efforts, contemporary local shore processing can trace a continuity to a TDX pilot project to harvest and process local halibut that began in 1981. One source suggested that they were using the "Anderson plant," which had been built in the 1970s (J. Plesha, personal communication, 2002). Small volumes of halibut were processed in 1981-1983 and increased significantly in 1984. TDX sold the operation to the local IRA Council in 1984, which operated it until 1988. After 1988, the facilities were upgraded and leased to an outside operator, Pribilof Island Processors (PIP), which reportedly processed halibut, cod, and crab—although total amounts may have been relatively small. PIP went out of business in 1991 and its assets, including the St. Paul operations, were acquired by Unipac. Unipac continued to operate the existing facilities but also built a large crab plant. Unipac processed a significant amount of crab in 1992-1994. In 1994, Trident purchased the Unipac assets and has operated the processing plant since then. Also in the 1990s, TDX and the Aleut Community of St. Paul began to jointly operate as another local buyer for halibut, doing business as PASCO, which reportedly

had the benefit of increasing the local price for halibut due to market competition. During their first year of operation they processed the halibut with their own crew, using facilities leased from Trident. By 2001, however, according to local sources, a different custom processing arrangement instituted by Trident had the effect of resulting in less profit for PASCO, effectively rendering the PASCO operation obsolete. In 2003, according to CBSFA leadership, CBSFA created the CBSFA Halibut Cooperative and began buying halibut with a focus on the local vessel market in general and local CDQ halibut in particular. At present (2007[34]), CBSFA continues to buy halibut from local vessels, while Trident continues to buy halibut from outside vessels (as well as some local IFQ halibut).

In addition to shore processing, St. Paul has also been the site of mobile processing operations. Floating processors and catcher processors locally processed this crab though the 1980s and continue to process much of it. Since 1992, however, shoreplant operations on St. Paul have grown in local importance. The relative production of shoreplant and floating processors in and near St. Paul in recent years cannot be discussed quantitatively because of data confidentiality restrictions.

Current Operations

The Trident plant, in terms of value, has relied primarily on crab, including opilio and king crab. Trident reports that cod is also processed during opilio season, resulting in salt cod and H&G cod for the European and American markets. The amount of cod per season, however, varies from one year to another. In a "normal recent" (post-BSAI crab rationalization) year the yearly cycle is expected to be opilio crab opening about January 15 with about 200 personnel on hand, including processors, maintenance, clerical staff, and management. Except for five or six local residents, nearly all personnel are considered non-local despite a desire on the part of Trident management to hire locally. All boats delivering crab are non-local. The opilio activity, as well as most cod activity, would be expected to last until mid-March, when two-thirds of the processors would be "sent home" (laid off). The targeted cod fishery is also fished by non-local boats, although some by-catch cod may be delivered by local boats during the halibut fishery. Halibut processing takes place from mid-June through September and employs a processing crew of about 25 to 30, of whom few, if any, are local. CDQ halibut is very important during this period and is fished exclusively by local boats. Local boat owners also own some regular halibut IFQs, which are delivered into St. Paul, and a few non-local fishermen have delivered regular IFQ halibut to St. Paul in the recent past. The yearly cycle ends with king crab processing, which lasts a month between October 15 and November 15. Fifty to 60 processors work at the Trident plant during this season. In addition to its own north region rationalized crab individual processor quota (IPQ), Trident's St. Paul facility also custom processes north region IPQ for other processing firms.

Processing employees are housed in a bunkhouse on-site and in another smaller bunkhouse near the AC Value Center. The smaller bunkhouse is used only during opilio season, however, and is rarely filled for more than a few months out of the year. Each room in both bunkhouses accommodates six to eight people, although only two to three people are in a room during halibut season. Processing employees generally have minimal interaction with full-time St. Paul residents.

[34] According to subsequently received review comments, this situation remains unchanged in 2008.

ST. PAUL

PLATE
STPL-14
HARVEST SECTOR

All: Halibut commercial fishing vessels tied to floating dock

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PLATE
STPL-15
HARVEST SECTOR

Top Left and Right: Halibut commercial fishing vessels

Bottom Left: Fisherman organizes gear before heading out to sea

Bottom Right: A tramper off the coast of St. Paul

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PLATE
STPL-16
HARVEST SECTOR

Left: A halibut commercial fishing vessel and small boat tied to floating dock

Right: *Western Dawn* unloading catch at Trident processing plant

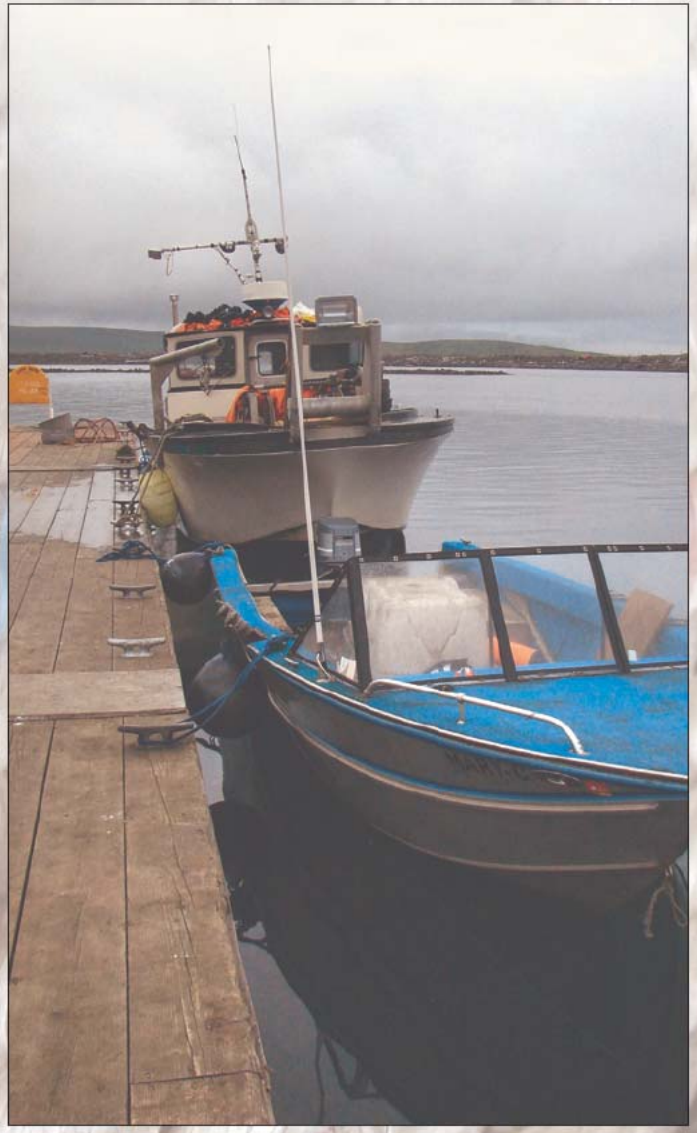

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PLATE
STPL-17
HARVEST SECTOR

Top Left: Fishermen prepare bait for the next day

Top Right: Fishermen organize gear upon return from sea

Bottom: Fishermen are greeted by friends and family at the end of the day

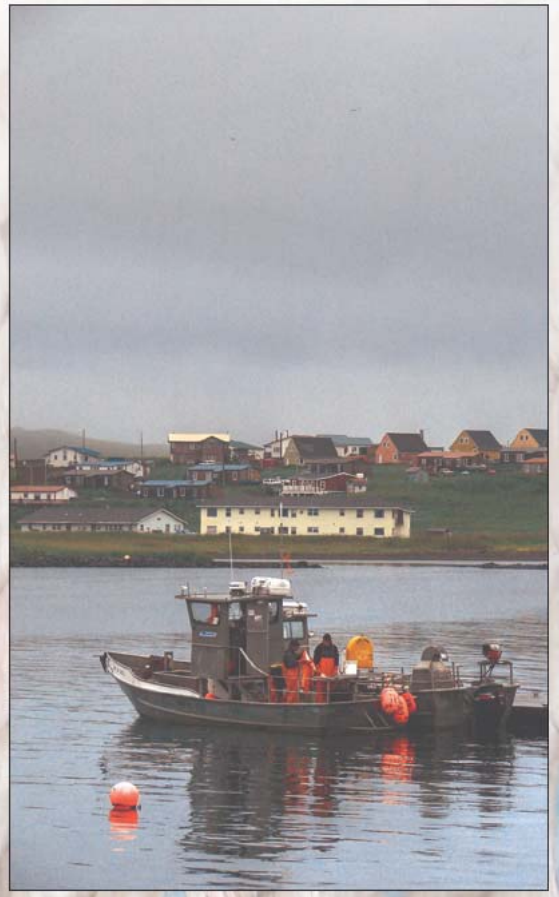

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PLATE
STPL-18
HARVEST SECTOR

All: A woman baits hooks for the next day

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In the recent past, a number of floating processors have also operated in the area and have established ongoing relationships with various regional communities. Icicle and Norquest operate the two major floaters that process crab most consistently in the Pribilofs. Another operator, UniSea, processed crab in the Pribilofs during the mid- and late-1990s, but has sold their most recently locally used platform (the barge *UniSea*[35]) and has not processed crab in the Pribilofs since 1999. Icicle typically processes inside the St. Paul harbor aboard the *Arctic Star*, while Norquest normally processes outside of the harbor itself, as well as in other locations in the Pribilofs. Other enterprises may also have used floaters to process crab in and around St. Paul and St. George as well.

In respect to crab processing, qualitative interview information suggests that the shift of processing away from St. Paul during dropping stock conditions in 1999-2000 may have been related to the "slow" nature of the fishing, and a crab fishery that was less of an intense race for crab than in the past. Data from interviews with harvesters would suggest that shorter seasons (and/or lower harvest levels), among other factors, resulted in a higher proportion of crab being taken farther from the grounds (away from St. Paul) for processing because "last loads" that often go elsewhere account for a higher proportion of the total harvest than would otherwise be the case. Finally, most (if not all) CDQ crab is processed in the north region,[36] and this would appear to function as a foundation or "critical mass" to attract other (non-CDQ) crab landings to north region processors, which can counter some of the incentives for crab processing to occur elsewhere. With a lower "critical mass," this pull for other processing activity may not have been as strong as otherwise would have been the case. The 1999-2000 downturn is now looked at as a "crab crash" in hindsight, and has generally affected the community of St. Paul negatively with lower stocks affecting taxes and CBSFA investments. More recently, however, BSAI crab rationalization has resulted in stabilizing the season. With a longer season, vessels remaining in the fishery are likely to purchase more fuel and supplies locally than was the case prior to rationalization. Residents generally feel that the community has benefited from crab rationalization and the establishment of a north region harvester and processor quota shares, although a number of residents have been adversely affected by co-occurring conditions that resulted in the official determination by NMFS of the continuation in 2005 and 2006 of a "commercial fishery failure" for the Bering Sea opilio crab fishery[37] and a few enterprises, such as crab gear storage, have seen some decline in revenues more directly linked to crab rationalization.

Most processors that operate in the Pribilofs also process crab in other locations (with shoreplants and/or floating facilities). Those processors that operate only floaters in the Pribilofs could operate those same facilities anywhere that logic and economic incentives dictate, while

[35] The processing barge *UniSea*, a converted World War II Liberty Ship and long a fixture in Dutch Harbor and later St. Paul, was sold for scrap in the Far East, leaving the fishery entirely.

[36] The north region was created during crab rationalization as a community protection measure to prevent pure economic incentives from shifting most if not all crab production away from St. Paul (and the Pribilofs in general).

[37] A record of the official determination "that the situation continued in 2005 and 2006 to constitute a commercial fishery failure under section 312(a) of the Magnuson-Stevens Fishery Conservation and Management Act" was contained in a July 19, 2007 letter from the Director of the National Marine Fisheries Service to the Mayor of St. Paul, a copy of which was provided to the research team by CBSFA on April 16, 2008 during the review process for this document. According to CBSFA review comments, the determination of fishery failure has been in place since 2000.

the single north region shoreplant (in St. Paul) is fixed in location. One major concern of St. Paul entities is that if changes in the crab fishery through another "crab crash" or changes to the rationalization program were to result in the closure of the onshore plant and processing moving away from St. Paul, the underpinning of processing for the local halibut fishery would also be removed. In the current environment, the shoreplant that processes crab also processes locally caught halibut, and the concern is that absent the crab fishery, the local halibut fishery is not large enough to support local processing activity. The possibility of this fear becoming reality was witnessed during the opilio season of 2007 when, reportedly due to leasing and other cost issues, Trident moved its processing activities from the St. Paul shoreplant to a floating processor in the St. Paul harbor. While this scenario apparently would not have been an attractive or even viable alternative before the crab stocks declined and rationalization extended the season, moving the crab processing operation to a floating processor for the winter of 2007 apparently was a fiscally and logistically successful choice for Trident in what were otherwise adverse business conditions. This action, however, suggested to community civic and business leaders that Trident was now capable of leaving the onshore facility permanently, endangering the existence of a local halibut fishery. Trident and TDX reached agreement lease terms following the 2007 opilio season, so it assumed shore operations will be stable once again.

Photographs of the Trident plant and processing activities are presented in Plates STPL-19, STPL-20, and STPL-21.

4.3.3 Support Services

The fishing-related support services sector of the St. Paul economy is relatively undeveloped as it relates to the local fleet, with many of the services present catering to the large crab vessels that were common during high opilio quota years. Generally, fleet support services are coordinated by the CBSFA, which manages the small boat dock and arranges for service professionals to visit the island to repair vessels and gear. Photos of some of the support services and community facilities in St. Paul may be seen in Plates STPL-22, STPL-23, STPL-24, STPL-25, and STPL-26.

Shipping

The airport is located outside of the center of town, approximately 3 miles to the northeast. Until recently, this airport featured a gravel runway approximately 5,125 feet long, but now the community is served by a newly completed 6,500-foot-long by 150-foot-wide asphalt-paved runway. PenAir, Ace Cargo, the U.S. Coast Guard, and private charters arranged by the federal government or contractors are common throughout the year. PenAir provides the sole regularly scheduled passenger service, however, with daily flights between the months of May and October. During the rest of the year, service is reduced to four times a week. The only exception to this is during the beginning and end of opilio season, when up to five flights a day will transport processing workers to the island. Also during opilio season, a U.S. Coast Guard helicopter will be stationed at the St. Paul airport to cut emergency response times to the fishing grounds. There are four employees of PenAir who work in St. Paul throughout the year. One resident works for the airport itself as an employee of the Alaska Department of Transportation, although another may be added during the winter for snow removal depending on the weather.

ST. PAUL

PLATE
STPL-19
PROCESSING SECTOR

Top Left: Trident processing plant offices

Top Right: CBSFA offices

Bottom Left: Larger vessels tied at Trident and municipal docks

Bottom Right: Trident crane and non-local commercial fishing vessel

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PLATE
STPL-20
PROCESSING SECTOR

Top: Fishermen unload halibut into a Trident net

Bottom Left: A Trident worker steadies a net for weighing

Bottom Right: A Trident worker counts and sorts halibut

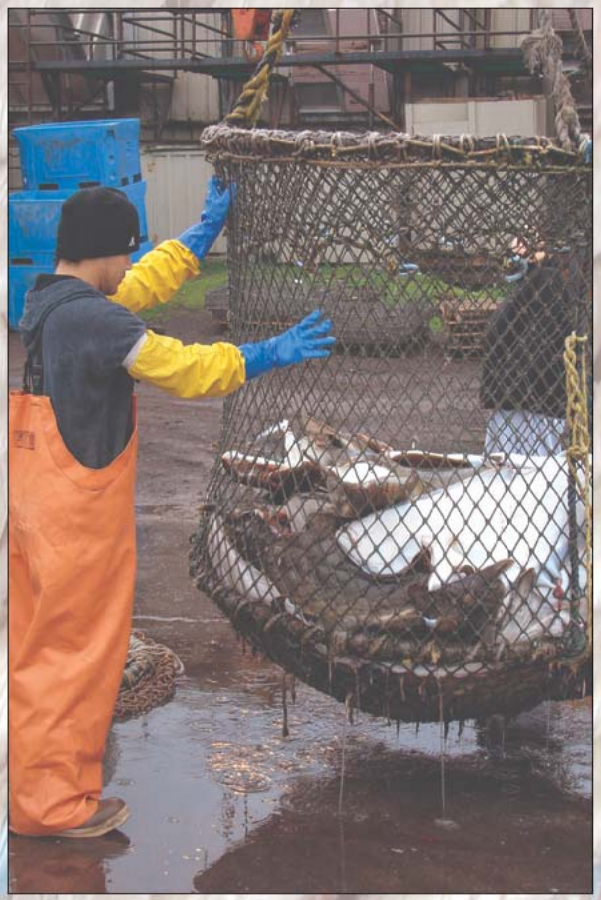

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PLATE
STPL-21
PROCESSING SECTOR

All: Trident workers wash, fillet, and sort freshly caught halibut

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ST. PAUL

PLATE
STPL-22
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: St. Paul post office

Top Right: AC Value Center and liquor store building

Bottom Left: St. Paul school

Bottom Right: City offices and radio station

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STPL-23
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: TDX youth center

Top Right: Aleut Community of St. Paul Bar

Bottom Left: Harbormaster office

Bottom Right: Municipal fuel station

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PLATE
STPL-24
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: PenAir aircraft and airport

Top Right: AC Value Center

Bottom Left: CBSFA 60-ton crane used to lift local vessels

Bottom Right: Pot storage

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PLATE
STPL-25
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left and Right: Delta Fuel in Trident processing plant building

Bottom: Municipal fuel station at city dock

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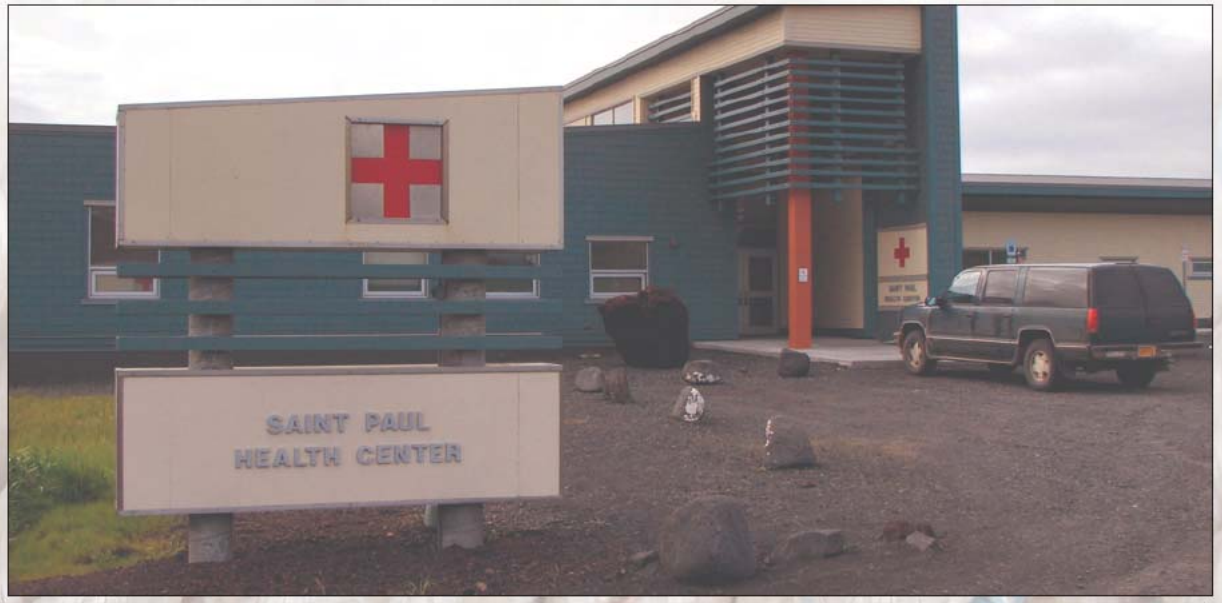
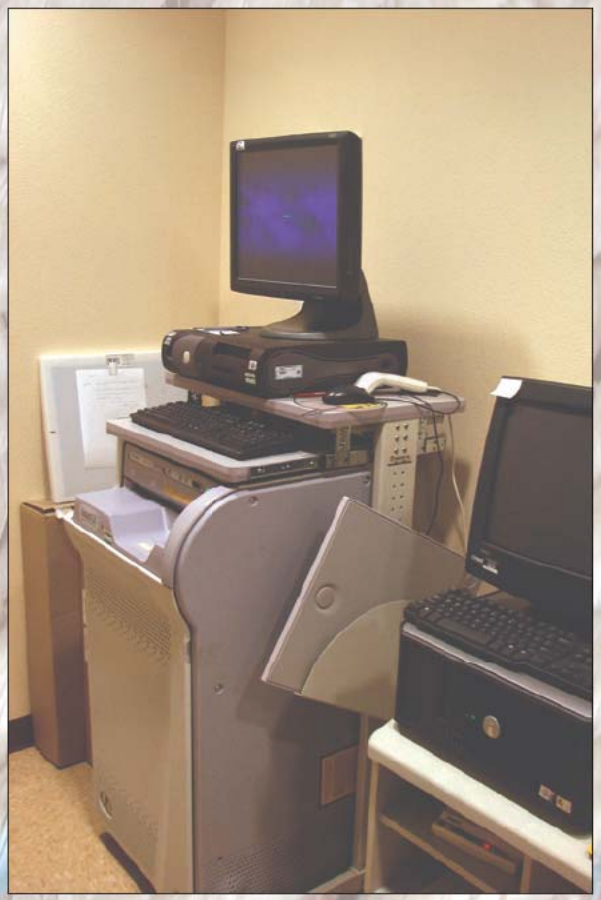
PLATE
STPL-26
SUPPORT SERVICES AND COMMUNITY FACILITIES

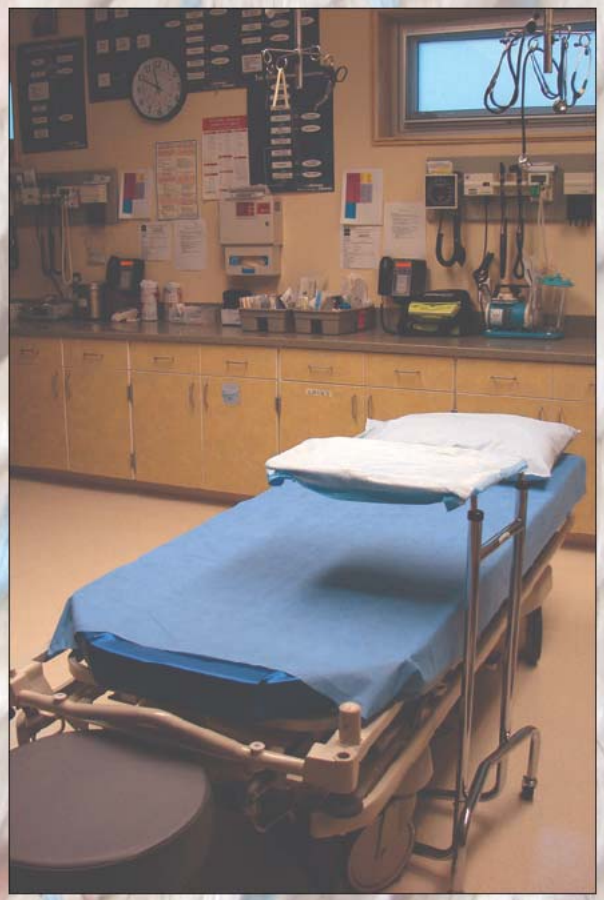
Top: St. Paul clinic

Bottom Left: Teleconferencing equipment used in St. Paul clinic

Bottom Right: St. Paul clinic emergency room







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The state employees are certified in crash response, however, and will occasionally assist the city fire department on an as-needed basis. Regularly scheduled flights are restricted by the visual flight rule and will occasionally be canceled due to heavy fog or low clouds, particularly during the summer months. The Alaska region of the FAA warns pilots that reindeer may be on the runway (FAA 2007).

Vessel Support Businesses

Support services in St. Paul are in a state of continuing development. St. Paul harbor was officially opened August 3, 1990 (although it was used before the official opening). There is a breakwater, 700 feet of dock space, and a barge offloading area. The harbor provides facilities to offload and temporary moorage, but long-term moorage is lacking, although basic electricity, water, and fuel services are available. A floating dock is put into place at the beginning of every halibut season for the use of the local fleet. This floating dock is managed, serviced, and maintained by the CBSFA, but it is relatively small and the local fleet regularly has to tie up to other boats at night, as opposed to tying directly to the dock. If a visiting small vessel arrives to town, as one did during fieldwork in 2007, precious dock space can be occupied by vessels not in the fishery. Recent (2001) Opilio Disaster Funds and $6 million of CBSFA money have been set aside for the development of a small boat harbor. In cooperation with the Army Corps of Engineers, who will create the breakwater and install the navigational aids, the CBSFA and City of St. Paul are planning the harbor basin and dock system. Access issues and property boundary concerns are currently (2007) being negotiated prior to the beginning of construction.

Besides continuing these planned harbor improvements, St. Paul is able to provide little in the way of direct support services, although up to nine offshore processors have been historically serviced out of St. Paul. Services to work on larger vessels are not available (except those that may possibly be obtained at the Trident plant or a floating processor), and the CBSFA has had to bring in non-local specialists (engine repair, aluminum welding) even for work on the small local boat fleet when there was sufficient demand for such service. These professionals are housed and reimbursed for their travel by the CBSFA as a service to the local fleet, but captains are responsible for payment related to the actual individual vessel service provided. Increased cold storage has also been completed in the recent past.

There are two alternatives for purchasing fuel in St. Paul: St. Paul Fuel Sales/North Pacific Fuel and St. Paul Delta Fuel. St. Paul Fuel Sales/North Pacific Fuel is a joint venture between North Pacific Fuel, a subsidiary of the Arctic Slope Regional Corporation and the City of St. Paul. It is located at the main city-operated dock where visiting vessels not making a delivery to Trident are moored. This enterprise offers home heating fuel and gas for automobiles, as well, with home heating fuel delivered directly to homes. Two people are typically employed by the joint venture, although a third person is sometimes added when business is heavy.

St. Paul Delta Fuel, a joint venture of Delta Western and TDS, is located within the Trident processor facility. Delta Fuel also offers marine and home heating fuel sales, as well as aviation fuel. Delta Fuel generally serves the local fleet and other vessels that deliver to Trident due to their location at the same dock. In the past, Delta Fuel was the preferred provider of home heating fuel because the buying power of TDX resulted in cheaper oil for residents. This is no longer the case,

however, and the difference between the two stations in regard of price is negligible. One advantage Delta Fuel has is that their delivery system is gravity based and is able to work during power outages, as opposed to North Pacific Fuel, which does not have a gravity-based delivery system. Delta Fuel draws much of its revenue during crab and halibut season but also has a contract with the airport and school district for fuel and manages individuals through accounts, driving repeat business. Delta Fuel employs two community members.

Other local vessel support services specific to the crab fisheries that occur in the area are pot logistical support and storage services that are offered on the island, at $20 per pot for hauling/loading and $3 per pot for 6 months of storage. TDX manages the pot storage and keeps crab pots in a space of vacant land situated near the city power plant. TDX staff report that the "crab crash" after the 1999 season hurt the crab pot storage business for TDX, with demand decreasing dramatically. The formerly lucrative venture has reportedly seen a steady decline in vessels storing their gear in St. Paul in the years since 2000. Apparently the implementation of BSAI crab rationalization (2005) and the accompanying consolidation of the crab fleet reinforced this previously existing downward trend in pot hauling and storage revenues. Currently (2007), only a handful of crab boats store gear at St. Paul.[38]

General and Hardware/Marine Supply Stores

The only formal store in town is the Alaska Commercial store, also known as the AC Value Center. In addition to providing groceries to the local community, the AC Value Center also sees an increase in business during crab season with processors purchasing small snacks. Generally, food is provided to processors by the plant through their cafeteria/galley/mess hall, but processors are allowed snacks in their rooms. Other residents on the island, particularly the elderly and people without freezers who cannot buy in bulk, also regularly shop at the AC Value Center. Given a relatively large price differential, however, most other residents choose to order in bulk from off-island "big box" stores such as Costco or Sam's Club.

Alaska Native Claims Settlement Act Corporations

TDX owns much of the land on St. Paul, including much of the land near the airport. One of the most striking features visitors to the island first see upon arrival to St. Paul are three wind turbines located almost adjacent to the airport driveway. These turbines are owned by TDX and represent one facet of the corporation's participation in the local economy. These wind turbines power the TDX-owned hotel and restaurant and there are plans by TDX to incorporate the surplus energy generated by the wind turbines into the local grid.[39] Aside from the land leasing, pot storage, hotel, restaurant, and fuel sales mentioned above, TDX also operates the local cable and internet service on St. Paul.

[38] Despite this decline, however, the local crab pot storage business has become known to viewers of the Discovery Channel's Deadliest Catch television series as *F/V Maverick*, followed on the series, stores its pots on St. Paul.

[39] At the time of fieldwork (2007), the conventionally fueled generator/power plant owned and operated by the City of St. Paul had just been upgraded and the cost of retrofitting the updated plant with the components to accommodate additional wind-generated power, on top of the costs of the recent upgrade, was considered by the city management to be a potential impediment to having necessary improvements to occur in the immediate future. More recently, however, there apparently has been some movement toward executing a power purchase agreement between TDX and the City.

As for services, TDX provides tours highlighting the biological diversity of the island to tourists, visiting popular and photogenic rookeries and cliffs crowded with nesting birds. TDX also manages a small museum in the center of town featuring artifacts dating to the Russian occupation of the island, Russian Orthodox materials, Alaska Native crafts, and biological specimens. This tourism operation is not as popular as in the past, however. A continued decline or generally lower level of tourism than was seen in a number of previous years are generally locally attributed to lingering effects of a sharp initial drop in tourism immediately following the September 11th terrorist attacks in 2001 and a change in air service from Reeve Aleutian Airways to PenAir, which occurred when Reeve Aleutian Airways ceased operations in 2000. According to local community members, the larger type of aircraft utilized by Reeve offered a more comfortable, more reliable travel experience for tourists, many of whom were elderly. Others believe that the current lodging facilities are not as competitive in their amenities as those once offered on the island compared to a number of alternative destinations and visiting tourists, which includes the communicative bird-watching community, have shared this perspective with their peers. Still, for many bird watchers, a visit to St. Paul (and neighboring St. George) provides the only opportunity to view a number of rare species, and a handful of birders are always on the island at any one time during the spring and summer months.

TDX also runs a local recreation center for island youth, which is open from 7:00 p.m. to 12:00 a.m. during the summer with more limited hours during the school year. The recreation center is stocked with a pool table, the latest video game systems, and snacks at prices below those of the AC Value Center. The center is meant to be a safe place to "just hang out," as described by the one TDX employee who supervises the center.

Finally, TDX owns a multi-faceted company called Bering Sea Ecotech (BSE), whose slogan is "Performance Without Compromise." This company conducts whatever construction and environmental remediation projects are necessary on St. Paul and employs approximately four people, although this number generally increases for large projects. This company is not based in St. Paul, however, and the vast majority of their work is done outside of the community. This includes in general contracting, road construction, electrical installation, fiber optic and cable installation, and unexploded ordnance remediation. BSE operates throughout the lower 48 states and also has a strong presence in Hawaii providing oil spill response and power station maintenance.

Tribal Organizations

In addition to owning and operating the bar and liquor store, the Aleut Community of St. Paul also provides a number of services to the community, including the funding of scholarships, organizing a domestic violence education and prevention program, providing medical loans, distributing food to elders, funding a learning center equipped with computers and internet connections, and funding tribal youth programs that include drug and alcohol awareness education. In addition to these social programs, the Aleut Community of St. Paul has recently begun winterizing and performing standard maintenance on a number of homes on the island, creating a more livable situation for in-need tribal member families. This endeavor has improved at least 25 homes on the island at the time of fieldwork (2007). The Aleut Community of St. Paul also provides local management for the sensitive biological resources on the island,

including fur seals, rare bird species, and the small reindeer herd present on the island through the St. Paul Eco-Office. The St. Paul Eco-Office is staffed by three employees (two full-time and one part-time) who provide seal rookery visitation permits for visitors and other individuals who are not tribal members. They also manage a recycling program (which had recently been suspended due to lack of funding), conduct rat prevention on the island, monitor for possible oil spills and clean oiled wildlife, manage the subsistence seal harvest, test water quality around the island, and conduct education programs for children. The Eco-Office is regularly funded by the NPRB for these projects. In total, the Aleut Community of St. Paul employs around 40 residents, although this number drops to around 20 during halibut season as half of the staff is engaged in the local fishery. The Aleut Community of St. Paul reserves these positions through the halibut season and fishermen are reinstated after the season ends.

Lodging and Restaurants

TDX also operates the only hotel and restaurant on the island. Located in a building adjacent to the airplane terminal, the King Eider Hotel provides rooms to the public, with primary customers being fishing companies, for crew changes, and bird watchers who frequently come to the island. June and July are considered busy months by TDX staff, with 10 to 15 people staying in the hotel at one time. Other months throughout the year are generally not as busy, with two to three people staying in the hotel, but there is rarely a time when no one is staying at the hotel. Contractors associated with construction activities or government projects will also sometimes stay in the hotel, although people staying for longer periods of time usually arrange for private housing.

Directly adjacent to the hotel is the only restaurant in St. Paul, the King Eider Hotel Kitchen, which is also owned by TDX. The restaurant is open for breakfast, lunch, and dinner, but hours are limited and the menu is set weekly. Generally, the chef will only make enough food for people staying in the hotel, as it is assumed that only those staying in the hotel would need food service because other visitors staying in private housing usually have access to a kitchen. Thus, people interested in eating at the restaurant but not staying at the hotel are encouraged to make a reservation. According to TDX staff, the restaurant struggles to make money and keeping fresh inventory in the summer is a challenge due to irregular air service. The restaurant is run by one person.

The local bar is owned and operated by the Aleut Community of St. Paul, which is the Native tribal government of St. Paul. The bar is located east of Village Cove, near newer housing and uphill from the post office, and in the same building as the tribal offices. The bar is open nightly and caters to residents and visitors. The most active times of the year for the bar are the months of May and June. Another busy season usually occurs during opilio crab processing in January through March, although this past year (2007), with Trident doing crab processing aboard a floating processor, was not as busy. Lent has historically been a slow time for the bar since drinking alcohol is forbidden by the Russian Orthodox church during Lent. The bar has a pool table and a television, and a local band plays on a semi-regular basis on Friday nights. The bar is the only space in the main part of the community large enough to host large gatherings, as the restaurant is located outside of town near the airport. Thus, community gatherings such as potlucks or large parties are held at also held at the bar.

The Aleut Community of St. Paul also owns the local liquor store, which is accessed through a doorway below the AC Value Center in the center of town. The liquor store specializes in beer and wine sales. For reasons similar to the bar, May and June are busy months, as are the months January through March. Lent sales are slow due to religious reasons. Historically, the liquor store would close during Lent, but it now stays open despite relatively slow sales.

Miscellaneous

Local fishermen, residents, and visitors on both St. Paul and St. George Islands receive local community information, weather forecasts, and musical entertainment courtesy of the only official radio station in the Pribilofs: KUHB 91.9. Located in the city office building and funded by the school district, KUHB generally offers an eclectic mix of country standards, R&B hits, soft rock, and pop. A selection of National Public Radio programming is carried, including All Things Considered, as is more local fare, including a local sports talk show out of Homer. Three people are employed full-time at KUHB: a station manager, a disk jockey, and a news reporter. Through the effort of the news reporter, KUHB produces local features detailing daily life and events on St. Paul.

4.3.4 Other Local Business/Service Activity

City of St. Paul

St. Paul is a second-class city incorporated in 1971. The local government includes a mayor, a seven-person city council, regional school board, planning commission, and various municipal employees (Sepez et al. 2005). At the time of fieldwork, the total number of municipal employees tallied 47, with a general range being between 45 and 50. It is not uncommon for seasonal help to be hired in the summer. The city imposes a 3 percent sales tax but has no property tax. The city manages the activities at the airport (although the airport itself is run by the Alaska Department of Transportation), runs the power plant, administers the harbor, collects garbage, provides water and sewer service, maintains the road system, and coordinates the volunteer fire department. The city also provides marine, automobile, and home heating fuel sales, in addition to providing some light home and automobile maintenance services.

Clinic

The clinic in St. Paul, officially called the Saint Paul Health Center, was built in 2006 and is operated by APIA and the Aleut Community of St. Paul. The clinic offers a suite of services for the residents and visitors of St. Paul, including processors and vessel crews, such as emergency care, primary care, tele-radiology and tele-pharmacy services, blood testing, family planning and gynecology, and behavioral health services. The clinic also offers a range of education programs on subjects including smoking cessation, substance abuse, and diabetes. The clinic features a full moderate complexity lab, which is capable of running blood tests and toxicology screenings. The clinic is considered a mid-size facility and employs 18 people, including 2 physician assistants and 4 community health aides. Other medical professionals visit on a regular basis throughout the year, including a doctor twice a year. A dentist also visits the island twice a year and is able to use the fully stocked dental suite available at the clinic, saving on travel costs and

providing a logistical incentive for dentists to visit. An optometrist also visits twice a year to conduct vision testing. Visiting professionals stay in suites on-site. Statistics for 2005 and 2006 show that there were 3,641 and 3,049 total visits to the clinic, respectively. These visits were spread among 678 and 615 unique users, also respectively. As can be discerned by these numbers, the clinic provides service to local community members as well as processors, with the busiest season for processor and vessel crew visits occurring during crab season. Typically, vessel crew injuries include broken bones from crab pot mishaps and processors visit the clinic due to flu-like illnesses. Residents come to the clinic for a variety of reasons, including emergencies, illnesses, and general health inquiries. Clinic staff members report, however, that diabetes-related health issues are the most common among residents. The clinic is considered a mid-size facility and the level of service provided may seem overwhelming for a community of just over 430. The clinic is the only one of its kind in the Bering Sea, however, and is used by the U.S. Coast Guard as a triage station. The importance of a well-staffed, advanced clinic in St. Paul was demonstrated by the 2002 explosion of F/V *Galaxy* in the waters off St. Paul, resulting in two deaths and forcing 26 men to abandon ship. During this emergency, U.S. Coast Guard rescue aircraft used St. Paul as a base and the clinic as a triage center. At the time, the clinic was not as advanced as the one currently on the island, and the event underscored the importance of a prepared clinic and was a precipitating force in the development of the new, more capable clinic.

4.3.5 Subsistence Harvesting

In many respects, any discussion of subsistence harvesting in the Pribilof Islands must begin with a discussion of fur seal harvesting. As stated above, the fur seal harvest was primarily the reason that the islands of St. Paul and St. George were populated in the first place, and, while the commercial harvest in St. Paul ended in 1984, the subsistence harvest is still important to the community. The subsistence fur seal harvest provides a source of food for the community, particularly elders, and the skins of the seals are fashioned into traditional crafts.

While subsistence take of seals was common in prehistoric and historic times among residents of what are now the coastal areas of the states of Alaska, Washington, Oregon, and California, only Alaska Natives currently qualify for a subsistence take exemption for species that are otherwise protected under the terms of the Marine Mammal Protection Act (MMPA) of 1972 (as reauthorized in 1994 and amended through 1997; the specific exemption for Alaska Natives is found in Section 101 [16 USC 1371]) and the Endangered Species Act. Specifically, the Alaska Native exemption within the MMPA allows for Alaska Natives who dwell on the coast of the North Pacific Ocean or Arctic Ocean to take marine mammals for the purposes of subsistence (or for the purposes of creating and selling authentic Native handicrafts and articles of clothing).

The *Steller Sea Lion and Northern Fur Seal Research Draft Programmatic Environmental Impact Statement* (NMFS 2007b) describes the contemporary fur seal harvest as being structured and managed in the same way as the commercial harvest of years past. Thus, a harvest foreman makes the on-site decisions and supervises the entire harvest event. The harvest crew is composed of volunteers, all of whom are tribal members. The harvest occurs from late June until early August. As this occurs during halibut season, securing a steady volunteer force is more difficult than in years past but is still relatively easy.

The specific locations from and frequency by which northern fur seals can be harvested are specified by the regulations, which permit only the taking of sub-adult male northern fur seals from haulout areas. Only experienced sealers can participate in the most important elements of the harvest, which are organized and managed by the harvest foreman. Additionally, a certified veterinarian with expertise regarding northern fur seals is contracted by NMFS to serve as the Humane Observer for the harvest. The Humane Observer works interactively with the harvest operation and foreman regarding the physical parameters and condition of the seals.

If the decision is to proceed, the harvest crew is assembled and the harvest foreman selects those who will proceed to the haulout area to round up a group of sub-adult males from the herd, which is then slowly driven to the harvest area. The round-up crew is accompanied by the Humane Observer and selects that part of the herd composed mostly of 2- to 4-year-old males as the harvest group. Females and any male northern fur seal beyond 4 years old are excluded from the drive to the harvest areas as soon as possible. Pups are very rarely involved in the round-up and drive as they are seldom found on the haulout areas during the harvest season.

Table STPL-20 shows the subsistence harvest levels for northern fur seals on St. Paul Island. An exact number of fur seals harvested for the most recent year at the time of fieldwork was not shared, but the count was generalized to be between 300 and 400 individuals. The decline in the numbers harvested is generally attributed to a general decrease in fur seal population. Still, community members report that a level of interest in seal meat as a dietary stable is waning among the younger generation and, as more elders pass away, a need for seal meat within the community wanes.

Table STPL-20. Subsistence Harvest Levels for Northern Fur Seals in St. Paul, 1985-2003

Year	Subsistence Take Range	Actual Harvest
1985	-	3,384
1986	2,400-8,000	1,299
1987	1,600-2,400	1,710
1988	1,800-2,200	1,145
1989	1,600-1,800	1,340
1990	1,145-1,800	1,077
1991	1,145-1,800	1,645
1992	1,645-2,000	1,482
1993	1,645-2,000	1,518
1994	1,645-2,000	1,616
1995	1,645-2,000	1,525
1996	1,645-2,000	1,591
1997	1,645-2,000	1,153
1998	1,645-2,000	1,297
1999	1,645-2,000	1,000
2000	1,645-2,000	754
2001	1,645-2,000	597
2002	1,645-2,000	648
2003	1,645-2,000	522

Source: D. Cormany, personal communication, 2003

Northern fur seals are not the only marine mammal harvested in St. Paul, however. The residents of St. Paul also harvest Steller sea lions throughout the autumn, winter, and spring months. As is the case for northern fur seals, the subsistence harvest of Steller sea lions is limited to Alaska Natives, and the harvest can only be done for the purposes of subsistence (or for the purposes of creating and selling authentic Native handicrafts and articles of clothing). Table STPL-21 shows the estimated subsistence take of Steller sea lions in St. Paul.

Table STPL-21. Estimated Subsistence Harvest Levels for Steller Sea Lions in St. Paul, 1992-2005

Year	Estimated Harvest
1992	162
1993	162
1994	147
1995	54
1996	28
1997	26
1998	41
1999	NA
2000	17
2001	12
2002	18
2003	13
2004	9
2005	9

Note: Values rounded to the nearest integer.
Source: ADF&G 2006

As documented by ADF&G (2005), Pribilof Island residents hunt Steller sea lions almost exclusively from the shore (unlike skiff-based hunting commonly seen elsewhere in Alaska) and target swimming juvenile (mid-size) males. On St. Paul Island sea lion hunting is most commonly done from shore at Northeast Point, accessible by truck. St. Paul hunters take advantage of known sea lion "swimways." Once shot, the hunter waits for the wind and sea to bring the carcass to shore, as heavy seas generally preclude the use of a skiff. A "sea dog" (a retrieval device consisting of a piece of wood with hooks attached to a 30- to 40-foot rope) assists in this process. Not all animals are recovered, but hunters try to shoot only those animals for which there is a high probability of eventual recovery. Hunters will at times hunt from skiffs in calm weather. Sea lion hunting on St. Paul occurs mainly from September through May and is predominately shore-based as in St. George where hunting occurs mainly from January through May.

According to the ADF&G's Division of Subsistence (ADF&G 2001), which performed its last, comprehensive subsistence study for St. Paul in 1994, 98.8 percent of homes used at least one natural resource for subsistence use. As expected, the use percentages for fur seals and sea lions were relatively high, at 69.0 percent and 60.7 percent, respectively. Subsistence resources with a higher percentage of use included fish, at 95.2 percent, which included 52.4 percent of residents

using salmon, and 90.5 percent of residents using halibut. An estimated 53.6 percent of St. Paul residents also used reindeer as a subsistence resource.

4.4 LOCAL GOVERNANCE AND REVENUES

Table STPL-22 provides information on municipal revenues for St. Paul for the years 1999 through 2006. More detailed information on fish taxes on St. Paul is not presented due to confidentiality considerations triggered by the low number of processors in the community.

As can be seen in the table, a significant change in municipal revenues occurred between the years of 1999 and 2000 as a result of the "crab crash," an event still discussed in St. Paul as a reason for current (2007) economic hardships. While 1999 was a peak year compared to preceding years (with fish taxes in 1999 about double what they were in 1998 and about triple what they were in 1997), the dramatic economic shift that happened as a result of the reduction of opilio crab quota puts into perspective the current configuration of the local government. Since 2000, the City of St. Paul has had to diversify their revenue stream and make choices related to employment, level of service for residents, and outside funding.

This shift seen in 2000, which carries on to this day, results from the loss of more locally derived revenues and they are far less than full replacement with those from state or federal sources. Much of the decline in locally derived revenue sources can be traced to much lower crab landings in St. Paul that started in 2000 compared to those seen in 1999.

Based on more specific budget information obtained from the City of St. Paul, the actual decline in local fish taxes from 1999 to 2000 was 84 percent. The City calculated that its sales tax receipts from five of the most significant local business sectors (shoreside processors, mobile processors, fuel distributors, harbor services, and the municipality) decreased in a range of 62 to 85 percent (Lestenkof, personal communication, 2002). Given this state of revenue decline, the City of St. Paul reduced its workforce by about half, from 80+ employees to approximately 42, and for the remaining workers instituted a reduced work week of 36 hours instead of 40 (P. Swetzof, personal communication, 2002). Similarly, for TDX the decline in revenue flow from 1999 to 2000 was approximately 59 percent, the workforce was reduced from about 34 to 9 full-time equivalents, and remaining employees received a 10 percent pay reduction. A good deal of this was directly attributed to the decrease in crab landings in St. Paul (Bourdukofsky and Philemonoff, personal communication, 2002).

This level of employment carries on to this day, as opilio stocks have not fully recovered from their downturn in 2000. Northern share IFQ and IPQ landing regulations have generally maintained a reliable tax base for the city, as the city is able to tax much of the crab landed in the north region. As can be inferred from Table STPL-22, the city was beginning to build revenue through other enterprises at the time of fieldwork in 2007. This included fuel sales and other services. In 2006, the local operating revenues are similar to the level seen in 1999, despite a $1.3 million difference in total tax revenue (in 2006 constant dollars). While the general perception of an economic downturn is present in St. Paul as a result of poor crab quotas, people interviewed generally shared that employment opportunities were good and that the standard of living had increased from recent years.

Table STPL-22. Municipal Revenues, St. Paul, 1999-2006

Revenue Source	1999	2000	2001	2002	2003	2004	2005	2006
Local Operating Revenues								
Taxes	$3,202,626	$776,776	$731,714	$916,945	$883,736	$825,026	$929,771	$945,637
License/Permits	$0	$0	$0	$0	$0	$0	$0	$0
Service Charges	$236,278	$296,191	$287,860	$179,172	$269,807	$773,598	$286,404	$233,475
Enterprise	$3,157,798	$2,270,137	$3,057,536	$2,915,306	$3,433,592	4,661,523	$5,988,5136	$5,959,328
Other Local Revenue	$411,091	$299,824	$1,006,046	$504,840	$302,673	$230,795	$184,951	$396,148
Total Local Operating Revenues	$7,007,793	$3,642,928	$5,083,156	$4,516,263	$4,889,808	$6,490,942	$7,389,639	$7,534,588
Outside Operating Revenues								
Federal Operating	$0	$0	$1,642	$86,859	$0	$53,225	$385,581	$91,605
State Revenue Sharing	$95,090	$42,789	$0	$29,472	$0	$0	$0	$0
State Municipal Assistance	$0	$14,303	$0	$10,457	$0	$0	$0	$0
State Fish Tax Sharing	$752,836	$97,195	$50,337	$24,834	$23,799	$358,890	$383,651	$330,273
Other State Revenue	$59,727	$1,810,397	$377,200	$258,066	$415,340	$600	$53,398	$600
Other Intergovernmental	$0	$0	$0	$0	$0	$0	$0	$0
State/Federal Education Funds	$0	$0	$0	$0	$0	$0	$0	$0
Total Outside Revenues	$907,653	$1,964,684	$429,179	$409,688	$439,139	$412,715	$822,630	$422,478
Total Operating Revenues	$7,915,446	$5,607,612	$5,512,335	$4,925,951	$5,328,947	$6,903,657	$8,212,269	$7,957,066
Operating Revenue per Capita	$11,761	$9,586	$10,362	$9,242	$9,886	$13,975	$16,828	$17,297
State/Federal Capital Project Revenues	$165,470	$1,338,810	$0	$480,753	$806,253	$107,461	$6,090	$37,398
Total All Revenues	$8,080,916	$6,946,422	$5,512,335	$5,406,704	$6,135,200	$6,903,657	$8,218,359	$7,994,464
Total All Revenues (2006 Constant Dollars)	$9,778,587	$8,132,396	$6,278,456	$6,058,875	$6,722,045	$7,367,799	$8,483,467	$7,994,464

Source: A. Logan, DCRA, personal communication, 2007, 2008; Federal Reserve Bank of Minneapolis 2008

Recent projects for the city include the construction of a new fire station/CBSFA crane storage building. The new fire station/crane storage building was funded by the CBSFA, but will be run by the city when completed. Currently (2007), fire-fighting equipment is stored in different places around town, creating a logistical challenge when a fire occurs. Upon completion[40] of a new fire station/storage building, all fire-fighting equipment will be stored in a central location. The site of the new facility is on city land near the power plant, although a site more central to the main residential area of town may eventually be negotiated with TDX, the island's major landowner.

As noted above, construction of a new small boat harbor, a project that involves the City of St. Paul, the CBSFA, and the U.S. Army Corps of Engineers, is also being planned. Once current (2007) real estate issues are resolved, this project will represent the next significant fisheries development project in St. Paul and it is estimated that construction may begin in 2009.[41] When completed, this facility should improve support infrastructure for the local fleet as well as outside vessels using St. Paul's harbor.

[40] According to subsequently received review comments, the new fire station/CBSFA crane storage building was constructed in late 2007 and was awaiting only some final interior work as of April 2008.

[41] According to subsequently received CBSFA input, approvals from the Aleut Community of St. Paul, TDX, and NOAA had been obtained and the small boat harbor project is being sent out to bid as of June 2008.

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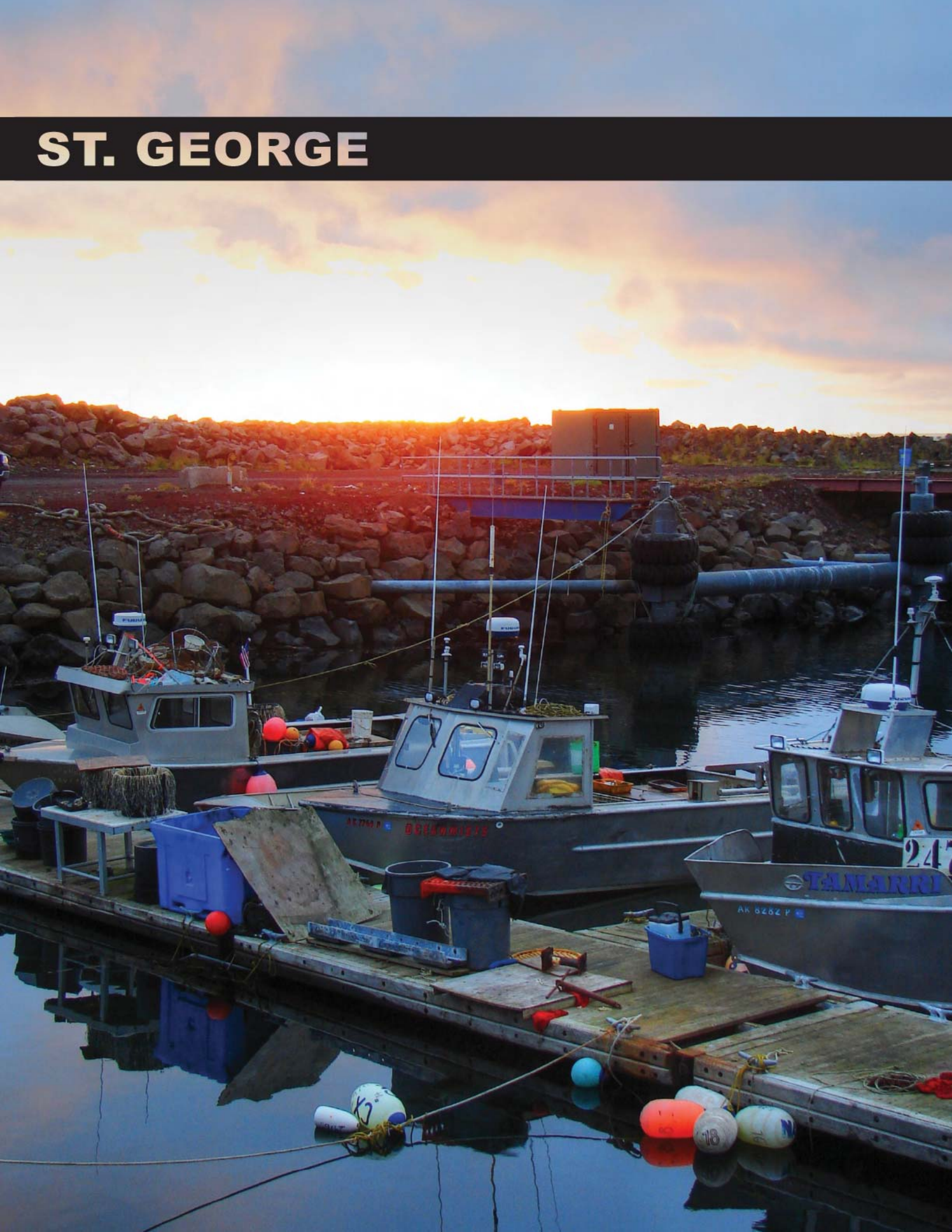
ST. GEORGE



CHAPTER 5.0
ST. GEORGE

St. George is located on the northeast shore of St. George Island, the southernmost of the five Pribilof Islands of the Bering Sea. It lies 47 miles south of St. Paul Island, 750 air miles west of Anchorage, and 250 miles northwest of Unalaska. St. George, located in the Aleutians West Census Area, is not part of an organized borough. The city of St. George, incorporated as a second-class city in 1983, encompasses 34.8 square miles of land and 147.6 square miles of water.

The climate of St. George is arctic maritime and results in cool weather year-round with a narrow range of mean temperatures varying from 24 to 52°F. Average precipitation is 23 inches, with 57 inches of snowfall. Cloudy, foggy weather is common during summer months, as is mist and rain.

5.1 OVERVIEW

St. George was first seen by Europeans in June of 1786 by Gavrill Pribilof of the Russian Lebedov Lastochkin Company while looking for the famed northern fur seal breeding grounds. Of the two main Pribilof Islands, St. George was landed upon first and was named after Pribilof's vessel, *Sveti Georgiy*, or Saint George. Although uninhabited at the time of the European landing, the Pribilof Islands had been known by nearby Aleut peoples by the name "Aamax, a rich hunting ground once visited by an Aleut chief lost in a storm" (Corbett and Swibold 2000 in Sepez et al. 2005:375). Russian missionaries called the Pribilofs "the place that God forgot" because of the poor weather that can sometimes overtake the islands, including thick fog, high winds, and torrential rains (*ibid*).

St. George, like St. Paul, was populated by indentured or enslaved Aleut hunters from Siberia, Unalaska, and Atka and relocated by the Russians to harvest fur seas. St. George's historical experiences with the U.S. federal government between 1870 through 1983 (the end of effective federal control over daily life) closely parallels the experiences described in the St. Paul community profile.

In 1983-1984, the U.S. government withdrew from the Pribilofs following the cessation of federal involvement in commercial sealing, providing $20 million to help develop and diversify the local economy, $8 million of which went to St. George. (Actual commercial seal harvesting stopped on St. George in 1973, a decade earlier than on St. Paul, but significant federal employment opportunities continued on St. George in the period between the ending of the harvest until the effective agency withdrawal from the community.) Much of St. George's $8 million was reportedly needed to bring former federal facilities up to state code requirements before use by the city, the Traditional Council, or the Tanaq Corporation. The effect of the funding in starting a non-seal-reliant economy was considerably less than might otherwise have been the case, particularly in conjunction with the unrealized assumptions that accompanied the Fur Seal Act Amendment of 1983, as described in the St. Paul profile (e.g., the Senate failure to

ratify the Fur Seal Treaty, foreclosing the potential local commercial benefits from sealing, and the lack of substantial state infrastructure development transition funds).

St. George has sought to develop commercial fisheries and tourism since the 1980s. Unlike neighboring St. Paul, however, there is no contemporary onshore processing activity and the logistics associated with traveling to St. George have challenged the creation of a vibrant tourism sector until very recently. In the recent past, the community has benefited substantially from local processing by mobile processors, and funds from CDQ managed by APICDA.

Scenes of the physical setting of St. George may be found in Plates STGE-1, STGE-2, and STGE-3. Some of the physical layout of the community is portrayed in Plates STGE-4 and STGE-5, and maps of the community are provided in Maps STGE-1 and STGE-2.

5.2 COMMUNITY DEMOGRAPHICS

As briefly outlined above, St. George shares with St. Paul an entirely different origin than the other communities profiled, as the contemporary Pribilof communities trace their roots directly to the forced migration and population of a commercial sealing outpost on previously uninhabited lands under Russian dominion. St. George has the largest proportion of Alaska Natives relative to total population of any of the communities profiled. As with the other communities, however, local residents perceive the fishing industry as the best private sector economic opportunity available to the community, especially given St. George's status as a CDQ community and the potential advantages for development that this status entails. Recently, a viable tourism industry has started to become more likely, as well, and many residents are optimistic regarding the kinds of economic benefits that may accrue to the community through a combination of increased commercial fishing and island tourism. Some of the attributes of the contemporary community may be seen in Plates STGE-6, STGE-7, and STGE-8.

5.2.1 Total Population

Table STGE-1 provides figures for St. George's total population by decade from 1880 through 2000. As shown, after a 30-year period from 1880 through 1910 of the decennial population counts varying between 90 and 93 persons, the population counts in the subsequent 90 years have varied by no more than 45 persons, between 138 (in 1920 and again 70 years later in 1990) and 183 (seen in 1940), with one exception, the 264 persons enumerated in 1960. The extended evacuation of civilian residents and effective depopulation of the village during World War II is not captured in these time series data. St. George has also had other experiences not shared by most other Alaska communities due to federal control over everyday life on the island for most of the last century. For example, in 1959 the Bureau of Commercial Fisheries (a forerunner of NMFS) announced that sealing would become a seasonal activity and recommended that the Pribilovians be relocated and given job training. While local opposition thwarted this initiative, the USDOI encouraged a voluntary relocation of St. George residents to St. Paul and, with the government control of housing, no new homes were built on St. George and vacant homes were destroyed.

ST. GEORGE

PLATE
STGE-1
PHYSICAL SETTING

Top: Bluffs west of St. George

Bottom Left: Tundra stretching across the interior of the island

Bottom Right: A foggy view of the sea from High Bluffs

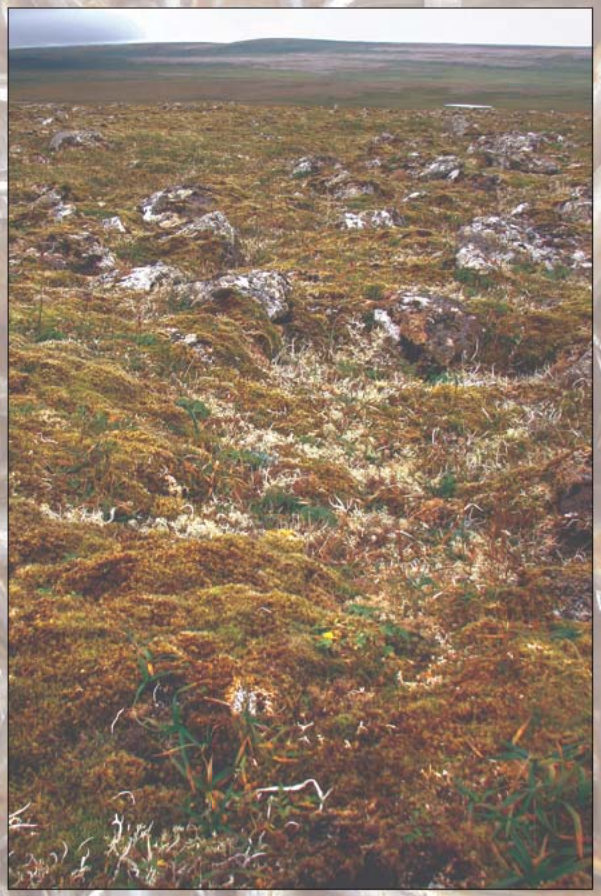


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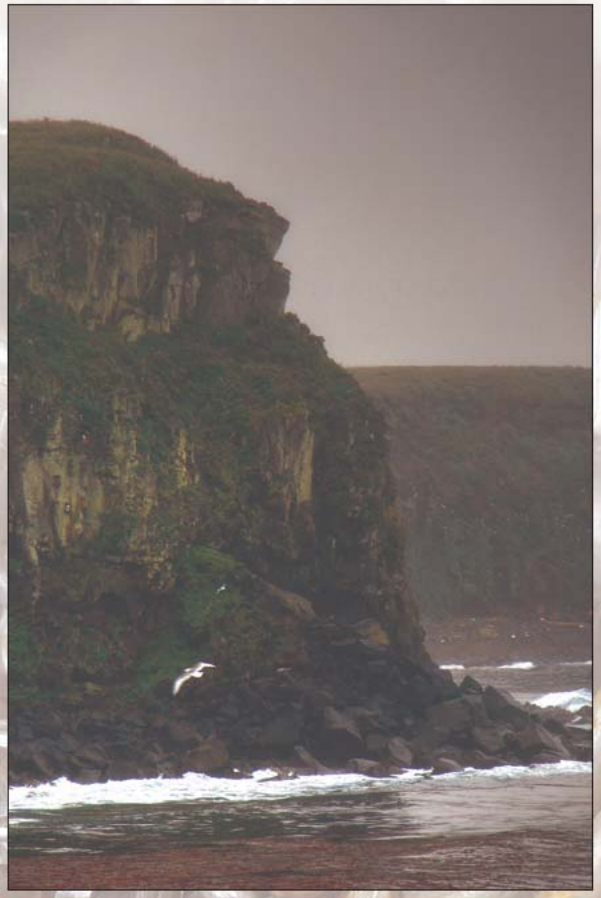
PLATE
STGE-2
PHYSICAL SETTING

Top Left: Steep bluffs west of St. George

Top Right: Low hills covered in tundra

Bottom: Arctic lupine



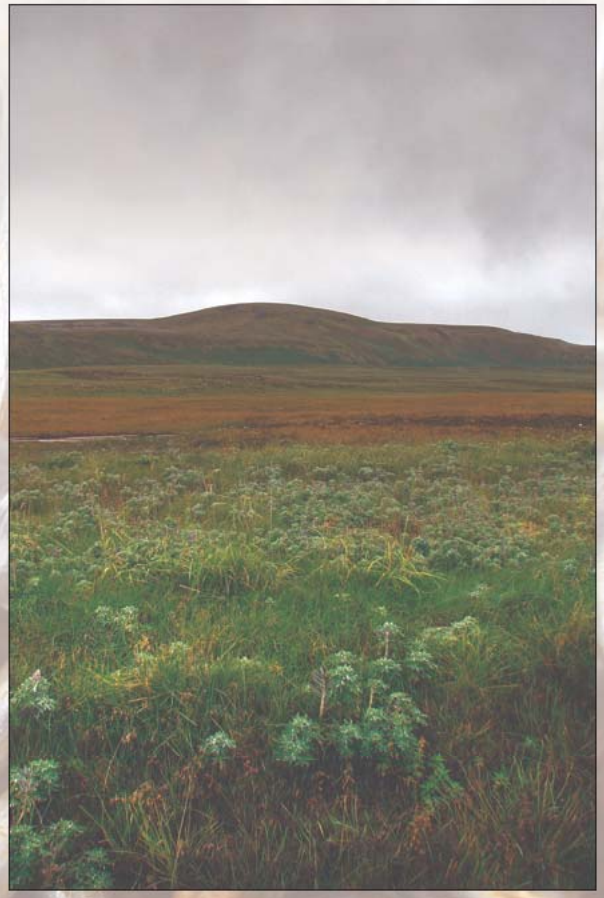


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PLATE
STGE-3
PHYSICAL SETTING

Top: Wild geranium

Bottom Left: Monkshood

Bottom Right: Wild mushroom

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ST. GEORGE

PLATE
STGE-4
SPATIAL RELATIONSHIP

Top: The community of St. George with a background of steep bluffs

Bottom Left: One of the grassy hillsides within the community of St. George

Bottom Right: Seals (foreground) lounge in a grassy area near town

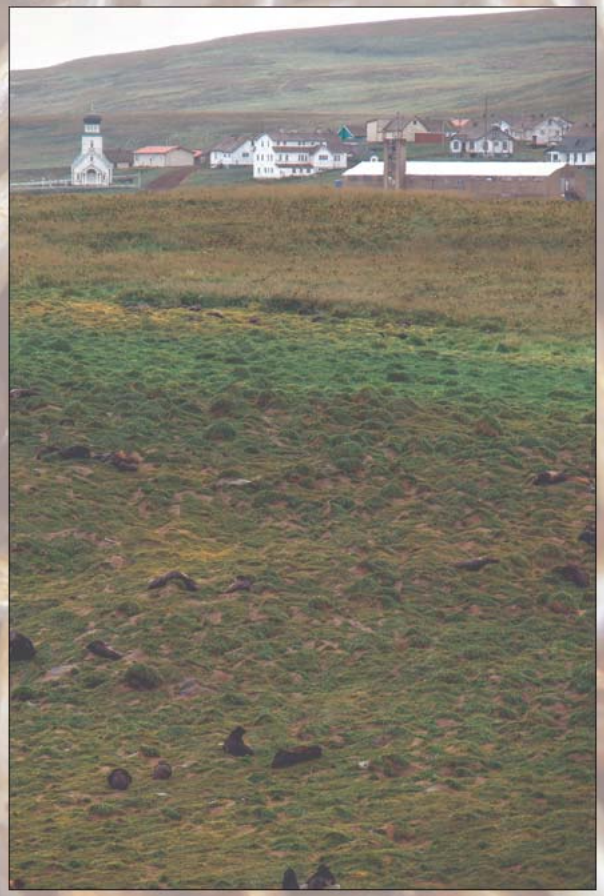

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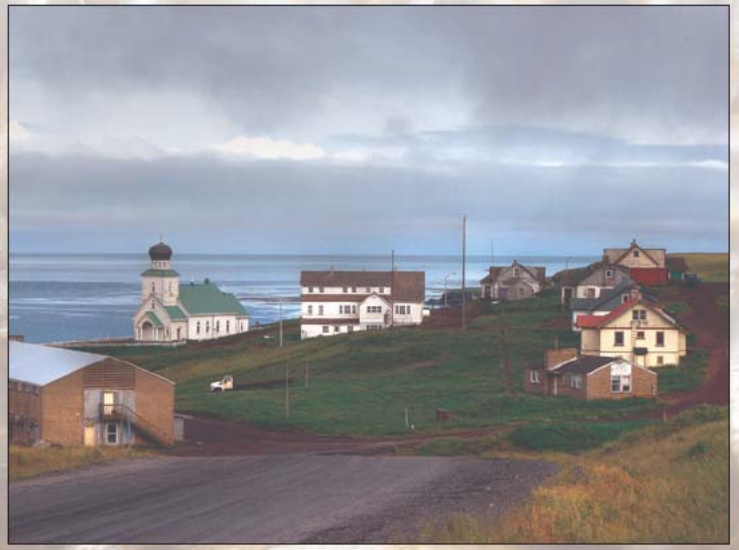
PLATE
STGE-5
SPATIAL RELATIONSHIP

Top Left: View of harbor and airport from High Bluffs

Top Right: A residential area (right) in close proximity to the store, church, and hotel

Bottom: The old sealing plant near the historic harbor and support buildings



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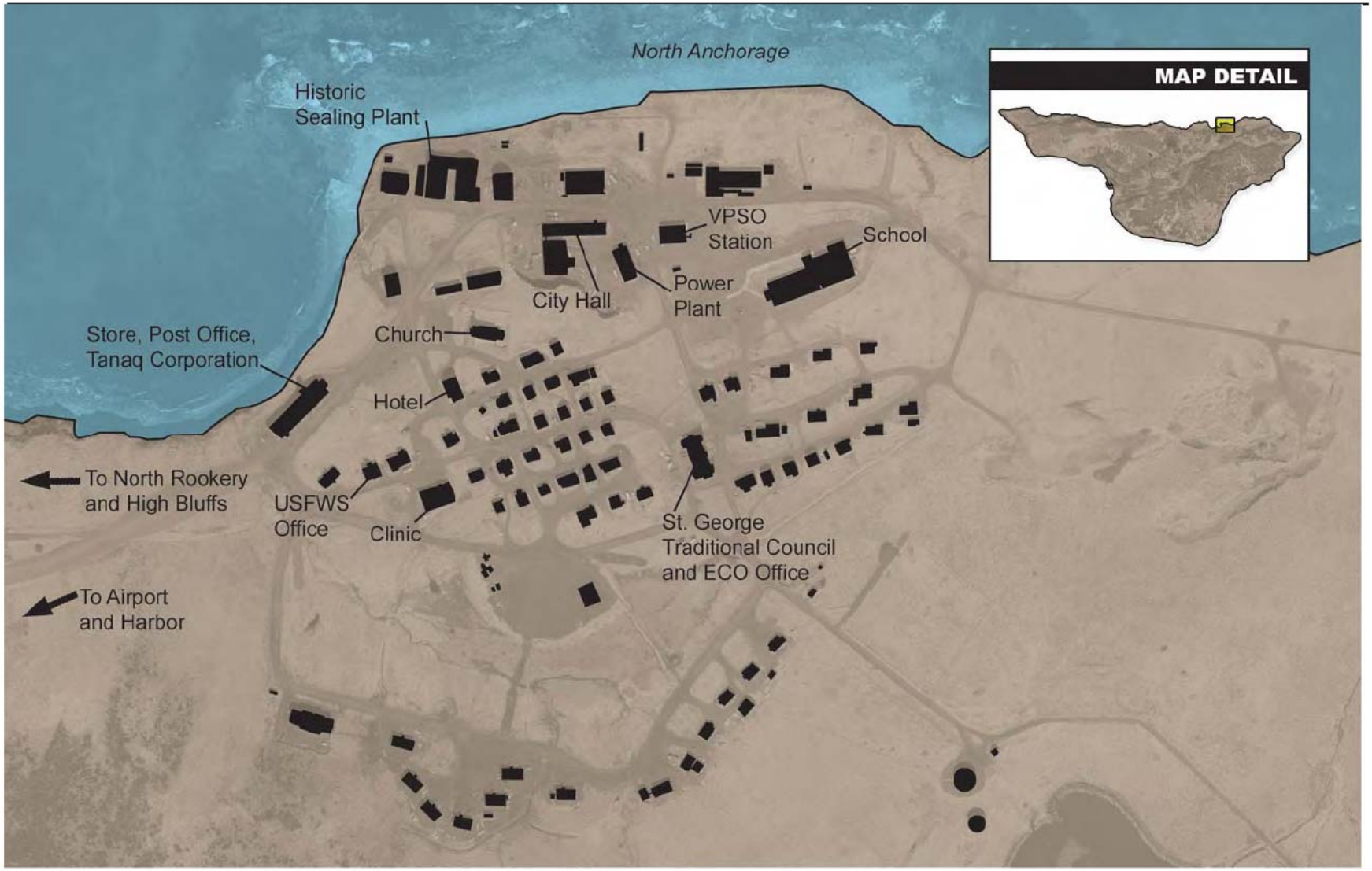

Source: Alaska Department of Commerce

Map STGE-1
Community of St. George

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Source: Alaska Department of Commerce

Map STGE-2
Harbor of St. George

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ST. GEORGE

PLATE
STGE-6
COMMUNITY ATTRIBUTES

Top Left: The St. George Russian Orthodox church at sunset

Top Right: Russian Orthodox grave markers in the cemetery

Bottom Left: The old sealing plant, a National Historic Landmark

Bottom Right: The remnants of a baidar near the old sealing plant

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PLATE
STGE-7
COMMUNITY ATTRIBUTES

Top Left: A gull harasses a red-legged kittiwake

Top Right: A fur seal moves through tundra

Bottom: An arctic fox watches from a rocky outcropping

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PLATE
STGE-8
COMMUNITY ATTRIBUTES

Top Left: A sign leads visitors to a seal-watching blind

Top Right and Bottom: Stacked rocks mark waypoints for people traveling in dense fog

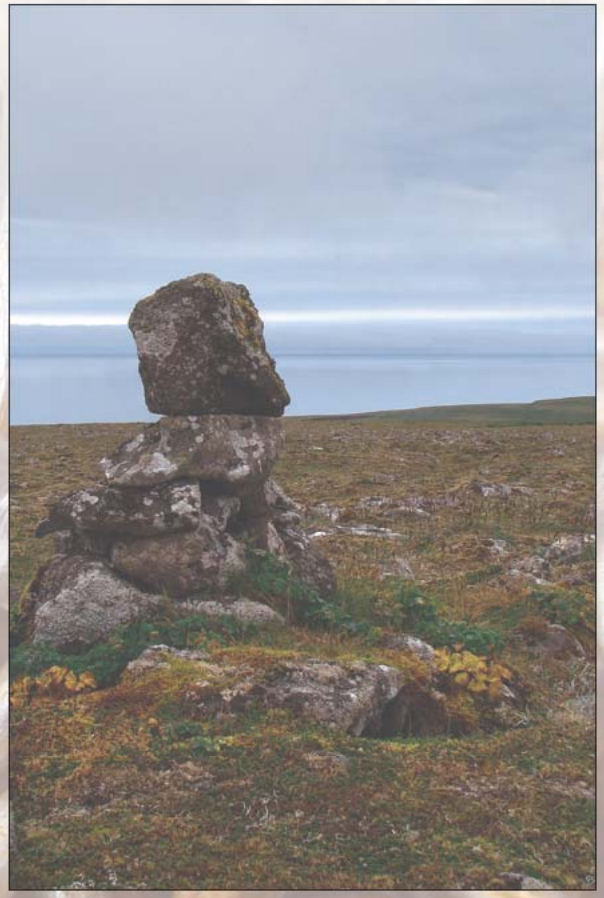

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Table STGE-1. Population by Decade, St. George, 1880-2000

Year	Population
1880	92
1890	93
1900	92
1910	90
1920	138
1930	153
1940	183
1950	*
1960	264
1970	163
1980	158
1990	138
2000	152

* DCED data show a zero count in 1950, but this is known to be incorrect. With the exception of the evacuations during World War II, there has always been a civilian population present in the community over the time span shown in the table.

Source: DCRA 2007; U.S. Census Bureau 2007b

In more recent years (since 1970), the population of St. George has remained relatively constant, with the population ranging between 163 and 138 individuals. At the time of fieldwork in 2007, however, local estimates put the number of St. George residents at 100 to 102, which is a significant drop since the last official U.S. Census tabulation. Interviewees generally report that more families have been leaving the island since 2000 due to limited economic opportunities. This economic downturn is largely attributed to the "crab crash" of 2000, which largely resulted in any direct activity associated with the crab fishery leaving St. George. Other out-migration is attributed to older members of the community who have left for larger cities such as Juneau and Anchorage have better access to advanced medical care. Finally, there seems to be an imbalance between births and deaths on St. George, with more elders passing away in recent years than children being born.

5.2.2 Ethnicity

Table STGE-2 presents information on ethnicity of the St. George population for 1990 and 2000. As shown, the community is much less ethnically diverse than the other communities profiled, consisting of only Alaska Natives and Whites in both 1990 and 2000. In both 1990 and 2000, Alaska Natives accounted for well over 90 percent of the total population. The diverse non-Alaska Native minority groups characteristically associated with the fish processing workforce in Western Alaska are absent in St. George.

Table STGE-2. Ethnic Composition of Population, St. George, 1990 and 2000

Race/Ethnicity	1990		2000	
	Number	Percent	Number	Percent
White	7	5.1%	12	7.9%
Black or African American	0	0.0%	0	0.0%
American Indian, Eskimo, Aleut	131	94.9%	140	92.1%
Asian or Pacific Islander*	0	0.0%	0	0.0%
Other**	0	0.0%	0	0.0%
Total Population	138	100.0%	152	100.0%
Hispanic origin, any race***	0	0.0%	0	0.0%

*In the 2000 census, this was split into Native Hawaii and Other Pacific Islander (pop 0) and Asian (pop 0).
**In the 2000 census, this category was Some Other Race (pop 0) and Two or more races (pop 0).
***"Hispanic" is an ethnic category and may include individuals of any race (and therefore is not included in the total as this would result in double counting).
Source: U.S. Census Bureau, 2007a, 2007b

5.2.3 Age and Sex

Table STGE-3 shows the population composition by sex in 1990 and 2000. As shown, the male-to-female ratio is much closer to an even distribution reflective of a typical residential population than is seen in any of the other communities profiled. Unlike the pattern seen in the "more industrial" crab communities, females outnumber males in St. George alone among the Alaska communities profiled.

Table STGE-3. Population by Age and Sex, St. George, 1990 and 2000

Attribute	1990		2000	
	Number	Percent	Number	Percent
Male	64	46.4%	73	48.0%
Female	74	53.6%	79	52.0%
Total	138	100.0%	152	100.0%
Median Age	NA		33.0 years	

Source: U.S. Census Bureau 2007a, 2007b

The St. George school, a part of the Pribilof School District, provides preschool through grade 12 classes. School enrollment figures for the FY 1993-2008 period are displayed in Table STGE-4. As shown, student counts during this span peaked in 1996, and the current (2008) enrollment is only about 36 percent of that 1996 figure. Unlike some of the other communities profiled, no children associated with families of processing workers attend school in St. George (due to the nature of floating processing seen in the community in the past as well as the current lack of any processing).

Table STGE-4. School Enrollment, St. George, FY 1993-2008

Fiscal Year	Student Count
1993	43
1994	42
1995	50
1996	58
1997	47
1998	34
1999	39
2000	31
2001	27
2002	24
2003	22
2004	19
2005	23
2006	23
2007	23
2008	21 (estimate)

Note: Fiscal year designation notes the calendar year in school year ended (e.g., 2003 refers to the 2002-2003 school year).
Source: School district staff, personal communication, 2002; J. Stacks, personal communication, 2007; Alaska Department of Education & Early Development 2007

Due to the few number of students enrolled, St. George has had to combine classrooms and the teaching staff is made up of four employees, including one teacher for grades 1 through 5, one teacher for grades 6 through 8, one principal, and one aide. High school students on St. George are instructed remotely through a closed-circuit television link with the high school class in St. Paul, asking questions and participating in discussions and assignments through a microphone and camera (transmitting to St. Paul) located in the St. George classroom. Those high school students not enrolled at the school in St. George regularly attend school "off-island" at Mt. Edgecumbe in Sitka. As described in the St. Paul profile, attending high school off-island also provides students the opportunity to participate in a wide range of sports, a more diverse curriculum and a number of electives and after-school activities, and, as one interviewee described it, the opportunity to date and interact socially with people to whom you are not related.

After graduation, former students generally stay in St. George and find employment with the local governments (municipal and/or tribal) or other businesses present on the island. This can include participating in the fishery or in seasonal construction. Others move to Anchorage or other larger cities for employment. Graduates attending college or trade school are rare, but this does occur and APICDA provides scholarship opportunities for St. George residents to assist with associated costs.

Plates STGE-9 and STGE-10 are essays provided by grade 6 through grade 8 students at St. George school describing their life on the island. Some touch on their hopes for the future, while others describe their personal interactions with the local fishery. While a full content analysis of

these essays is beyond the scope of this document, it is clear that the students are eager to experience life outside of St. George, even if they eventually return to the island to live. The students also fondly describe the opportunities to engage with the natural realm and resources of the island and the relatively safety of St. George compared to other, larger towns.

5.2.4 Housing Types and Population Segments

Table STGE-5 displays the population of St. George by housing type. As shown, none of the residents of St. George lived in group quarters in 1990 or 2000. Unlike the other Alaska communities profiled, St. George has seen virtually no commercial fisheries development onshore, and the lack of residents in group housing is consistent with no commercial seafood processing taking place onshore in the community during this period. Plates STGE-11, STGE-12, and STGE-13 include photographs of different housing types in the community.

Table STGE-5. Group Quarters Housing Information, St. George, 1990 and 2000

Year	Total Population	Group Quarters Population		Non-Group Quarters Population	
		Number	Percent of Total Population	Number	Percent of Total Population
1990	138	0	0.0%	138	100.0%
2000	152	0	0.0%	152	100.0%

Source: U.S. Census Bureau 2007a, 2007b

Tables STGE-6 and STGE-7 provide information on ethnicity and housing type for 1990 and 2000, respectively. Again, St. George is unique among the communities profiled with its lack of a group housing population segment. In contrast to the other communities profiled, where the American Indian, Eskimo, and Aleut population is generally located in non-group quarters housing, while other racial and ethnic minorities are generally located within group quarters, there were no other racial or ethnic minorities even present in St. George in 1990 and 2000. The

Table STGE-6. Ethnicity and Group Quarters Housing Information, St. George, 1990

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	7	5.1%	0	0.0%	7	5.1%
Black or African American	0	0.0%	0	0.0%	0	0.0%
American Indian, Eskimo, Aleut	131	94.9%	0	0.0%	131	94.9%
Asian or Pacific Islander	0	0.0%	0	0.0%	0	0.0%
Other race	0	0.0%	0	0.0%	0	0.0%
Total Population	138	100.0%	0	0.0%	138	100.0%
Hispanic origin, any race	0	0.0%	0	0.0%	0	0.0%
Total Minority Population	131	94.9%	0	0.0%	131	94.9%
Total Non-Minority Population (White Non-Hispanic)	7	5.1%	0	0.0%	7	5.1%

Source: U.S. Census Bureau 2007a

Chelsea

My name is Chelsea. I've been living on the island for 13 years with my family. My older brothers show me how to do this or how to do that. They show me how to cut a seal up. But they only showed me how to cut up the seal meat but not the whole seal. So I'm going to be learning that this year when they open the rookeries.

They wait until the seal pups are growing so they go out to go hunting for them. Once you got how much seals that you want you go home and cut up the seal meat, and than when you got that done you have to put it on freezer bags. Then bag them up and then put them in the freezer. The only reason you put it in the freezer is because when you want to eat it in the winter.

I live on a island that's in the middle of the Bering Sea, 40 miles from Saint Paul and about 700 miles to Anchorage. There are still some things to do on this island during the summer, because my dad is the tender.

A tender works on a boat and loads the fish until the cavity where he puts the fish in is full. Then he goes over to Saint Paul on the boat and drops off the fish to Trident Seafoods. I went there with my dad when he would have a landing. A landing is where the fisherman drops off their fish. When he has a landing I would go out with him and watch him and than it started to get a little boring so I started to help out and clean the fish because the fish has slime on it. And than they fill the stomach part of the fish with ice.

In conclusion, this was my fantastic report on what I do on the island. I hope to come back some time when I'm older and see what has changed or what is still the same.

Tess

My name is Tess. I'm thirteen years old and this is my life on St. George. I live in St. George Alaska. St. George is an island in the Bering Sea. On St. George Island we fish for halibut. My Dad is an excellent fisherman. At least once or twice a summer I go fishing with my dad. The last time I went fishing was last week. I didn't catch anything at all but last year I caught my first halibut. It's hard to catch halibut because they pull down and they're very heavy. My dad let my pull it up all the way and he didn't even help me. My first catch was fun and I wish to catch another one next year summer. Fishing is fun and I might go fishing every summer. I think even when I graduate I will still come home to St. George to go fishing.

I don't plan to live here after college but I will visit. My dream is to learn about computer animation and other things like that, with my older sister. I want to work hard on my dream too. Living on St. George is hard, but not as hard as living in a city. We have lots of jobs here but I wish to live somewhere else for my job. That's my reason for not living on St. George Island. I want my life to be challenging. I think it would be too easy to stay up here. I would probably have a bad job up here if I stayed my whole life here. That's just what I think about it. In conclusion I think St. George is a great place but not for jobs. I think fishing on St. George is the best place to go fishing. And that's all for my fantastic life on St. George Island.

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Captain

Hi my name is Captain. I am 14 years old and I have lived on the island since I was one. After I graduate high school I plan to leave this island because it's boring up here, and I want to get a job in Anchorage. I went to school here almost all my life besides last year, when I went to Mears Middle School for seventh grade. I didn't like out there because I didn't like the teachers that much because some didn't like me or at least one didn't. They gave a lot of homework and it's hard to get help with 30 kids in your class. Here it's easy to get help and there isn't much homework either.

Fishing here is fun but I seem to attract the real small fish, my friends usually catch the bigger fish. I got 26 bucks for catching the smallest fish. It was so awesome. I want to go halibut fishing again some time. I am also suffering because I haven't been on the internet for a month now. Usually at seven us kids go to the sand pit and walk around, make fun of each other, but we are never serious. This year I am going to actually try to do better in school so I can get to the 8th grade before this year ends. I am also doing this just to go to St. Paul. I want to make music most of my life because I love to make music and lyrics.

In conclusion life up here is boring and fun at the same time. Some people who don't live up here might like the quiet peace here but I want to say good-bye.

Joshua

Hi my name is Joshua and I live on St. George Alaska. And I live on St.George for 9 years I been living here and i think St. George Is fun because because u can go fishing, sealing, and, hiking one time when I went fishing with my dad and Emil. When I got on the boat I was exciting because I haven't went fishing in a long time when we got out to the water I got my fishing pole and put it in the water scalpion on it when I put my hook in the water I caught a baby codfish after my dad caught a haliubt then Emil did then after I caught two scalpions the my dad caught a 5footer and Emil caught one to . We tried fishing we caught nothing only nibbles so we went back and when we got back we told my step mom Ruby. She was happy. After I played out until 8:00 then I dissected my flounder and baby cod I looked in the stomach I found a baby crab in it it was cool and slimey after I looked at the heart it was small after the dissection. I washed my hands and played out this was the best slimey day of my life.

Muriel

My name is Muriel and my age is 11. This is my 2nd year on St.George and I really like it. I have lots of friends here. This year my dad let me get a cat. His name is Nipper. He is 6 months old and he at least I think is the cutest thing in the world. This year also my dad got married to a lady that lives in the Philippines. I really like St.George because it's not like you have to take a cab down to the store. The store is not 5 miles away it's a few yards away. I also like the way that you don't have to see your friend only at school but the whole day after. Also its not like someone has to hold your hand when you cross the street, you can just walk right across the street there will probably be no cars anyway. I like to go fishing, especially with my dad. My dad took me out to go fishing with him and there I got my first fish. that was in Atka were my dad taught 3 years ago. Now I love where I live. I was born in Arizona until I was 4 then my mom sent me to live with my grandma until I was 7 then my dad wanted me to live with him and now, I'm still living with him. And that's my life and that's the way I like it.

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ST. GEORGE

PLATE
STGE-11
HOUSING TYPES

All: Single-family homes in the community of St. George

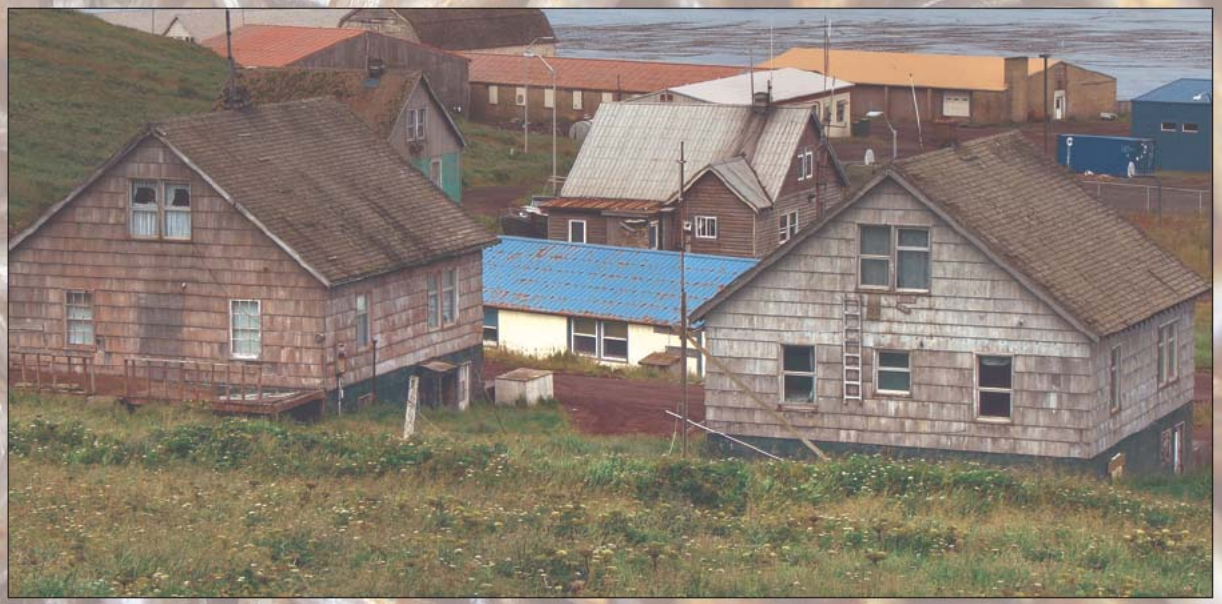

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PLATE
STGE-12
HOUSING TYPES

All: Single-family homes in the community of St. George

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PLATE
STGE-13
HOUSING TYPES

Top Left: A relatively new subdivision in St. George of single-family homes

Top Right: A new home in St. George

Bottom Left: A six plex apartment building

Bottom Right: Unused group quarters housing associated with past processing activities

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Table STGE-7. Ethnicity and Group Quarters Housing Information, St. George, 2000

Race/Ethnicity	Total Population		Group Quarters Population		Non-Group Quarters Population	
	Number	Percent	Number	Percent	Number	Percent
White	12	7.9%	0	0.0%	12	7.9%
Black or African American	0	0.0%	0	0.0%	0	0.0%
American Indian, Eskimo, Aleut	140	92.1%	0	0.0%	140	92.1%
Asian or Pacific Islander	0	0.0%	0	0.0%	0	0.0%
Other race	0	0.0%	0	0.0%	0	0.0%
Total Population	152	100.0%	0	0.0%	152	100.0%
Hispanic origin, any race	0	0.0%	0	0.0%	0	0.0%
Total Minority Population	140	92.1%	0	0.0%	140	92.1%
Total Non-Minority Population (White Non-Hispanic)	12	7.9%	0	0.0%	12	7.9%

Source: U.S. Census Bureau 2007b

proportion of whites in St. George for both surveyed years is also low compared to the other communities surveyed. In 2007, non-Native individuals on the island included some visiting school staff, clinic staff, federal employees, and spouses of Native residents.

Housing is generally divided into Old Town/Uptown, Downtown, and New Town. Old Town/Uptown is located directly south of the sealing plant, surrounding the current hotel and church, atop the central hill of town. These homes are generally older and smaller than other homes on the island, particularly those in New Town, and are inhabited by elders and single members of the community. Downtown is located south of the school and east of the tribal offices, east of the main hill in the community. While many people do live in this neighborhood, there is a higher proportion of vacant homes in this area than in other areas of town. The final area of town is New Town, which is located at the extreme southern end of the community along one road. These homes are newer, larger, and ranch-style in construction. New Town also contains St. George's only apartment complex, which is composed of six units; one unit is vacant, and the other five units are inhabited by two young families, two couples, and one elder.

New home construction on the island is not frequent and there are a number of vacant units in St. George. Generally, units become vacant through families moving off-island or elders passing away. Other vacant units are seasonal homes and are used for only a few months out of the year. Rates on rental homes managed by the AHA are dependant on income, as are the units in the sixplex. People who decide to move to St. George typically stay with family or friends on the island while finding available housing through the church, AHA, or other community members.

Table STGE-8 displays basic information on community housing, households, families, and median household and family income for St. George in 2000.

Table STGE-8. Selected Household Information, St. George, 2000

Community	Total Housing Units	Vacant Housing Units	Total Households	Average Persons per Household	Median Household Income	Family Households	Average Family Size	Median Family Income
St. George	67	16	51	2.98	$57,083	42	3.29	$60,625

Source: U.S. Census Bureau 2007b

5.3 LOCAL ECONOMY AND LINKS TO COMMERCIAL FISHERIES

As was the case on St. Paul, the federally controlled fur seal industry dominated the economy of St. George through most of the 20th century, although commercial sealing ceased on St. George several years earlier than on St. Paul. The presence of large seal populations still contributes to the local economy, as the rookeries and the more than 210 species of nesting sea birds found on St. George's cliffs do support a modest amount of tourism, attracting a handful of small cruise ships a year, but local government and fisheries dominate contemporary local employment. The recently restored seal processing facility in the community may be developed as an interpretative and cultural center in conjunction with the USFWS, which manages Alaska Maritime NWR lands and other federally managed resources near the community. At the time of fieldwork in 2007, some interpretive signage had been created related to machinery inside the seal processing facility and tours were reportedly conducted for visiting tourists. However, parts of the facility are still used for storage and a good deal of restoration and/or construction would have to be done to create a center suitable for housing exhibits and hosting events. There is reportedly no local tourism related to sportfishing at present, although reindeer hunting does draw at least a few hunters from outside of the community, and some individuals temporarily in the community for work projects do at least occasionally take advantage of the opportunity to hunt while in St. George (which requires a $100 permit from the Tanaq Corporation to use corporation lands).

In the recent past, St. George had a workforce estimated at 82 residents, and there were approximately 45 full-time equivalent jobs in the community (APICDA 2002), with the largest block of jobs associated with the municipal government. At the time of fieldwork in 2007, the main employer on the island was the St. George Island Traditional Council, which is IRA-related tribal government on the island, with nine employees. The City of St. George was the main employer in the recent past, with approximately 20 employees, but that number has now dwindled to 4. Other employers on the island include the Tanaq Corporation (the ANCSA corporation on the island), the St. George Canteen (a grocery store), PenAir, Delta Fuel, and the school and clinic.

APICDA is the CDQ group that manages the quota provided to St. George through the CDQ program. APICDA also represents and manages the quota provided to Akutan, Atka, False Pass, Nelson Lagoon, and Nikolski. In addition to investing in large commercial vessels and processors outside of the community of St. George, APICDA provides loans and educational opportunities for St. George residents. APICDA also finds employment opportunities for APICDA-community residents, including those living in St. George, on vessels and processors in which APICDA has some ownership interest.

Table STGE-9 shows the estimated number of people employed, unemployed, and living in poverty for the years 1990 and 2000, which is based on employment and financial information from 1989 and 1999, respectively. As seen above, the total population of St. George for these 2 census years are relatively similar (131 and 152, respectively), but the values for some fields are highly variable. Perhaps the most striking difference between 1990 and 2000 data is the percent of people living in poverty, with a change of just over 34 percent over the course of the decade. The number of people not seeking employment and percent of adults not working are also striking, with a sharp reduction between 1990 and 2000 data, especially considering the slight increase in total population in 2000. Current unemployment figures are not available for the island, but interviewees in 2007 report that finding full-time employment is challenging, but obtaining part-time or seasonal employment is relatively simple. One estimate put unemployment at 0 to 10 percent in the summer (depending on construction projects taking place) and 60 percent in the winter. These part-time and/or seasonal positions do not cover all yearly expenses comfortably, however, and the proportion of St. George residents living in poverty may be slightly higher than the 7.9 percent seen in 2000, especially since opilio stocks dropped in 2000 and have not rebounded, affecting the economy of St. George.

Table STGE-9. Estimated Employment and Poverty Information, St. George, 1990 and 2000

Year	Total Persons Employed	Total Persons Unemployed	Percent Unemployment	Percent Adults Not Working	Not Seeking Employment	Percent Poverty
1990	40	7	8.2%	52.9%	38	42.0%
2000	76	3	3.1%	21.6%	18	7.9%

Source: U.S. Census Bureau 2007a, 2007b

The following detailed discussion of the fishing industry is divided into the harvesting, processing, and support services sectors.

5.3.1 Harvesting

Community Fleet Quantitative Description

Table STGE-10 provides information on the characteristics of vessels owned by St. George residents for the period 1995 through 2006. This information is collected by the CFEC when vessel owners renew their registration. As shown, the local fleet in St. George has declined substantially over the years. With a small peak of 14 vessels in 2002, the number of registered vessels for 2006 was 3. All vessels for 2005 and 2006 were less than 26 feet, although a 27- to 32-footer had been in the community during 2003 and 2004. According to the data, all vessels since 1995 have been engaged in the commercial fishery. Finally, the registered vessels in St. George are all aluminum, and have been since 1996.

Table STGE-10. Characteristics of Vessels Owned by Residents of St. George, 1995-2006

Characteristics	Year											
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Total Number of Vessels	13	10	12	12	12	11	11	14	7	6	3	3
Number of Vessels Fishing	13	10	12	12	12	11	11	14	7	6	3	3
Number of Vessels By Size												
0-26 feet length overall	11	10	12	12	12	11	9	12	6	5	3	3
27-32 feet length overall	2	-	-	-	-	-	2	2	1	1	-	-
33-49 feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
50-59 feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
60-124 feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
125+ feet length overall	-	-	-	-	-	-	-	-	-	-	-	-
Average Age of Vessels (years)	12	12	14	14	14	12	10	12	7	10	5	6
Number of Vessels by Hull Type												
Aluminum	12	10	12	12	12	11	11	14	7	6	3	3
Fiberglass/Plastic	1	-	-	-	-	-	-	-	-	-	-	-
Rubber	-	-	-	-	-	-	-	-	-	-	-	-
Iron/Steel/Alloy	-	-	-	-	-	-	-	-	-	-	-	-
Wood	-	-	-	-	-	-	-	-	-	-	-	-
Number of Vessels with Refrigeration	-	-	-	-	-	-	-	-	-	-	-	-
Number of Vessels Using Diesel	1	-	-	-	1	1	-	-	-	-	-	-

Note: CFEC analysts provided vessel registration data of all resident vessel owners by community and year. Vessel registration data are available on the internet at www.cfec.state.ak.us/fishery_statistics/vessels.htm. The data were summarized by Northern Economics, Inc.
Source: CFEC Vessel Registration Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

In addition to vessel ownership information, data on permit holders for St. George provide a perspective on local harvester engagement in various fisheries. Table STGE-11 shows the number of persons in the community who own permits in one, two, three, or all four of the major fishery groups in Alaska, by year, for the period 1995 through 2006. Table STGE-12 shows the percentages of all permit holders who owned permits in the different combinations listed. (Additional information on permit holders by community may be found in Appendix A.) As shown, halibut and sablefish permits are the most prevalent in St. George and have been since 1995. A major shift occurs in 2003, however, when the number of people with singular halibut/sablefish permits dropped by 50 percent and one person emerges in the data with groundfish and halibut/sablefish permits. For the latest data year available, there are six people with a permit in the halibut/sablefish fishery, with two of those six also having a permit for groundfish.

Summary catch and earnings estimates for the community may be made through using the annual CFEC data report called "Permit and Fishing Activity by Year, State, Census Division or Alaskan City." Table STGE-13 aggregates and summarizes estimated landings and gross revenue data for St. George into 14 gear and species groups for the years 1995 through 2005. (Note that this table, unlike the previous table, displays the number of permits held, not the number of permit holders.) Where the number of permits in any group is less than that required to permit disclosure of actual data, an algorithm was used to produce "reasonable estimates" of total catch and earnings. (A more detailed explanation of the algorithm methodology is provided in Appendix A.) In ways similar to its neighbor, St. Paul, the St. George data show that halibut is not only the key species fished in the surrounding waters, but it is the only fishery in which St. George residents participate. The data also show that a significant drop in production occurred in 2003. The number of permits fished stays similar to that in 2002 (21 permits in 2003 to 24 permits in 2002), but the amount landed in 2003 is approximately 12.5 percent of the pounds landed in 2002. The next year, 2004, the number of halibut permits fished drops to its lowest point for the range shown. Since 2003, the total estimated gross revenue has never approached the levels seen for any singular year between 1995 and 2002.

Table STGE-14 provides estimates of the percentage of nonconfidential gross revenue for St. George permit holders by species group, by year, for the period 1995 to 2005. These data provide one type of fundamental measure of "dependency" of community harvesters on particular fisheries. As noted above, halibut is the only fishery in which residents of St. George participate. With no variation, all 100 percent of each year is tied to the success of the halibut fishery. In the most recent years, however, the revenue from the halibut fishery has declined substantially from a peak of $415,780 in 2002 (in 2005 constant dollars) to $40,241 in 2005, a difference of $375,539.

Communities also directly benefit from the harvest sector through participation of residents as crew members as well as through the engagement of vessel owners and permit holders. Beginning in 2000, the CFEC has produced estimates of crew members by community, based on the number of permit holders in the community, plus the community residents who have applied for a Crew Member License with the ADF&G. (A more complete discussion of this

Table STGE-11. Distribution of Permit Holders across Fisheries for St. George, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in Only One Major Fishery Group												
Salmon (SM)	0	0	0	0	0	0	0	0	0	0	0	0
Groundfish (GF)	0	0	0	0	0	0	0	0	0	0	0	0
Halibut and Sablefish (HS)	15	13	16	15	14	11	13	14	7	7	5	4
Crab/all other species (CO)	0	0	0	0	0	0	0	0	0	0	0	0
Persons with Permits in Two Major Fishery Groups												
SM, HS	0	0	0	0	0	0	0	0	0	0	0	0
SM, GF	0	0	0	0	0	0	0	0	0	0	0	0
SM, CO	0	0	0	0	0	0	0	0	0	0	0	0
HS, GF	1	0	0	0	0	0	0	0	1	1	1	2
HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	0	0	0	0	0	0	0	0	0	0	0	0
SM, HS, CO	0	0	0	0	0	0	0	0	0	0	0	0
HS, GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	0	0	0	0	0	0	0	0	0	0	0	0
Total of All Permit Holders												
All Fisheries	16	13	16	15	14	11	13	14	8	8	6	6

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

Table STGE-12. Percentage Distribution of Permit Holders across Fisheries for St. George, 1995-2006

Fishery	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Persons with Permit in only One Major Fishery Group												
Salmon (SM)	-	-	-	-	-	-	-	-	-	-	-	-
Groundfish (GF)	-	-	-	-	-	-	-	-	-	-	-	-
Halibut and Sablefish (HS)	94%	100%	100%	100%	100%	100%	100%	100%	88%	88%	83%	67%
Crab/all other species (CO)	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, One Fishery Group	94%	100%	100%	100%	100%	100%	100%	100%	88%	88%	83%	67%
Persons with Permits in Two Major Fishery Groups												
SM, HS	-	-	-	-	-	-	-	-	-	-	-	-
SM, GF	-	-	-	-	-	-	-	-	-	-	-	-
SM, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF	6%	-	-	-	-	-	-	-	13%	13%	17%	33%
HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Two Fishery Groups	6%	-	-	-	-	-	-	-	13%	13%	17%	33%
Persons with Permits in Three Major Fishery Groups												
SM, HS, GF	-	-	-	-	-	-	-	-	-	-	-	-
SM, HS, CO	-	-	-	-	-	-	-	-	-	-	-	-
HS, GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal, Three Fishery Groups	-	-	-	-	-	-	-	-	-	-	-	-
Persons with Permits in All Major Fishery Groups												
SM, HS, GF, CO	-	-	-	-	-	-	-	-	-	-	-	-
Total of All Permit Holders												
All Fisheries	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Note: CFEC analysts provided permit ownership of residents of each community by year, although these data are available on the internet at www.cfec.state.ak.us/fishery_statistics/permits.htm.
Source: CFEC Permit Data, provided to Northern Economics, Inc. by request from CFEC Data Analysis Section, 2007

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Table STGE-13. Summary Catch and Earnings Estimates for St. George Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Held											
Halibut	23	18	20	19	18	14	15	17	9	8	6
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	1	-	-	-	-	-	-	-	1	1	1
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	24	18	20	19	18	14	15	17	10	9	7
Permits Fished											
Halibut	22	27	25	26	27	25	26	24	21	16	17
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	-	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	22	27	25	26	27	25	26	24	21	16	17

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Table STGE-13. (continued)

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Landings (pounds)											
Halibut	43,548	36,866	87,122	87,824	105,248	117,761	170,346	219,187	27,475	25,752	14,377
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	-	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	43,548	36,866	87,122	87,824	105,248	117,761	170,346	219,187	27,475	25,752	14,377
Estimated Gross Revenue (dollars)											
Halibut	$76,958.00	$70,232.35	$157,495.62	$74,883.06	$133,890.02	$305,412.26	$277,677.00	$382,994.55	$42,544.00	$65,070.86	$40,241.17
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
IIerring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	-	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$76,958.00	$70,232.35	$157,495.62	$74,883.06	$133,890.02	$305,412.26	$277,677.00	$382,994.55	$42,544.00	$65,070.86	$40,241.17
Total in 2005 Constant Dollars	$98,621.37	$87,421.15	$191,644.20	$89,721.85	$156,955.11	$346,382.20	$306,385.98	$415,780.08	$45,156.76	$67,275.48	$40,241.17

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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Table STGE-14. Percentage of Gross Revenue Estimates for St. George Permit Holders by Species Group, 1995-2005

Fishery	Year										
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Estimated Gross Revenue (dollars)											
Halibut	$76,958.00	$70,232.35	$157,495.62	$74,883.06	$133,890.02	$305,412.26	$277,677.00	$382,994.55	$42,544.00	$65,070.86	$40,241.17
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	-	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	$76,958.00	$70,232.35	$157,495.62	$74,883.06	$133,890.02	$305,412.26	$277,677.00	$382,994.55	$42,544.00	$65,070.86	$40,241.17
Total in 2005 Constant Dollars	$98,621.37	$87,421.15	$191,644.20	$89,721.85	$156,955.11	$346,382.20	$306,385.98	$415,780.08	$45,156.76	$67,275.48	$40,241.17
Percentage of Estimated Gross Revenue											
Halibut	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
IFQ Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon Seine	-	-	-	-	-	-	-	-	-	-	-
Salmon Drift Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Set Net	-	-	-	-	-	-	-	-	-	-	-
Salmon Other Gear	-	-	-	-	-	-	-	-	-	-	-
Herring	-	-	-	-	-	-	-	-	-	-	-
Groundfish Longline	-	-	-	-	-	-	-	-	-	-	-
Groundfish Jig	-	-	-	-	-	-	-	-	-	-	-
Groundfish Pot	-	-	-	-	-	-	-	-	-	-	-
Groundfish Trawl	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab	-	-	-	-	-	-	-	-	-	-	-
King Crab	-	-	-	-	-	-	-	-	-	-	-
All other fish/Shellfish	-	-	-	-	-	-	-	-	-	-	-
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Source: CFEC 2007a; supplemented by Northern Economics, Inc.; Federal Reserve Bank of Minneapolis 2008

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methodology may be found in Chapter 1.0.) Table STGE-15 provides estimates of crew members for St. George for the years 2000 through 2006. These data should be only taken as a rough indicator of the level of involvement of community members, but they do indicate that a portion of the total population of the community is engaged in commercial fisheries.

Table STGE-15. Estimated Number of Permit Holders and Crew Members from St. George, 2000-2006

Year	Permit Holders	Crew Members	Total
2000	11	0	11
2001	CFEC did not report data for 2001		
2002	14	0	14
2003	8	0	8
2004	8	8	16
2005	6	4	10
2006	6	5	11

Source: CFEC 2007b

Spatial Distribution of Harvester Effort

Figure STGE-1 provides information on the spatial distribution of halibut catch for vessels owned by St. George residents for all gear types for the years 1996 to 2005. Figures STGE-2, STGE-3, and STGE-4 show the spatial distribution of catch for halibut in intervals for within this same overall time period. Before 2000, halibut catch was tracked either by standard groundfish statistical area or by IPHC statistical areas. Thus, for a complete picture of the halibut catch for the years before 2000, both tracking systems must be displayed. The spatial distribution of effort is localized to the area directly surrounding the island of St. George, regardless of time period or statistical tracking system. This is indicative of the small-scale day fishery present in the community. It is important to note that fishing is likely not limited to this one statistical area, however, with the possibility that a small number of vessels (subject to confidentiality restrictions) could be traveling farther afield. For example, *Nightrider* is known to fish waters in different statistical areas miles away from St. George.

Community Harvester Characterization

Initially after the cessation of the commercial fur seal harvest, the Tanaq Corporation purchased ten 20-foot skiffs to help start a local fishery in the community by making it easier for residents to acquire vessels and in 1983 started a small fish processing plant in one of the former seal processing buildings. This facility also had a significant freezer capacity. Designed to be a small start-up operation that would eventually transition to a larger, more permanent facility across the island at the site of the present harbor, the cost of shipping product proved prohibitive. While the skiffs were the genesis of the local commercial fleet (and some remain in subsistence use), the processing portion of the enterprise folded before transition to a larger facility could take place. The local fleet is now smaller than it was in recent years, but the vessels are generally larger than the skiffs once used in the commercial fishery.

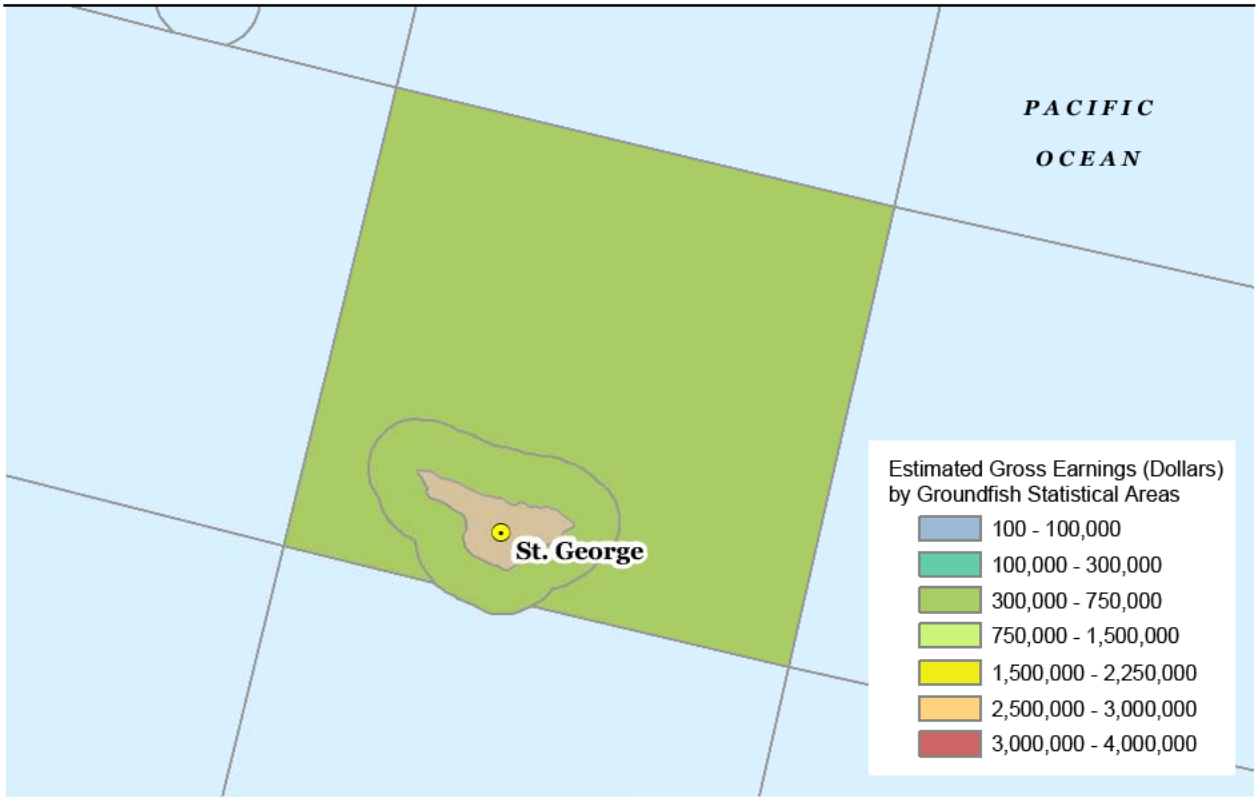
In the recent past, APICDA estimated that there were approximately 28 local fishermen and about 12 local vessels in St. George, with the vessels ranging from 16 to 30 feet in length (APICDA 2002). At the time of fieldwork in 2007, however, there were approximately 15 local fishermen and 5 local vessels in St. George, with the vessels ranging from 25 to 46 feet in length. As stated above, three privately owned vessels were 25 feet in length, with one 46-footer owned by APICDA and crewed by St. George residents. The final vessel is a tender that transports the daily halibut catch to St. Paul for processing. Community residents attribute the decline in the number of vessels to a number of factors, including the inconsistent and sometimes poor income derived from fishing. Other difficulties experienced by local fishermen have included challenges associated with regular vessel maintenance, electronics repair, and organizational and logistical problems.

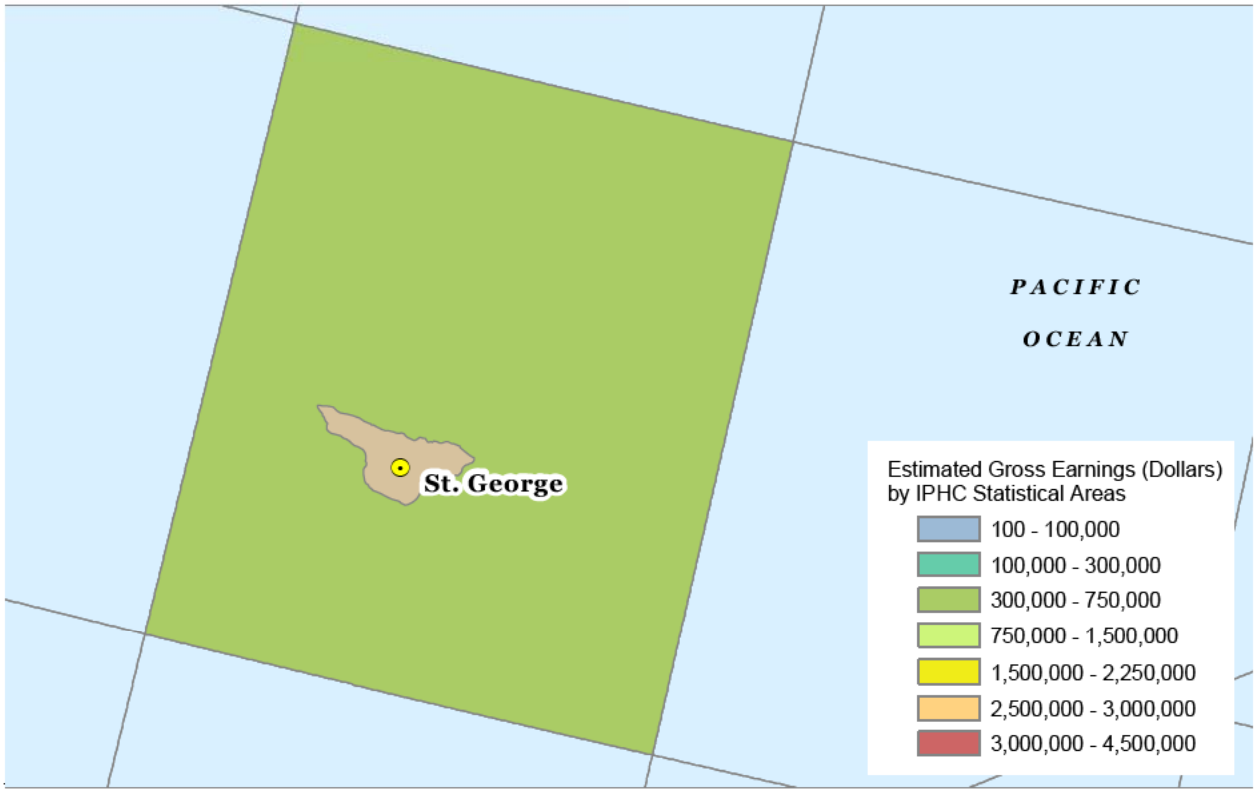
Like St. Paul, local halibut season in St. George begins in mid-June and can last until September, although the season can end earlier if the quota is filled early or if bad weather sets in. At the time of fieldwork in 2007, the fishery was largely considered a day fishery. In contrast to the day fishery on St. Paul, however, the fishermen on St. George do not typically start their work at 6:00 to 7:00 a.m. and end at 10:00 p.m. Due to a variety of factors, including vessel size, storage capacity, crew size, and a mix of prior commitments that can include other employment on the island, fishermen in St. George typically spend only part of their day on the water. During fieldwork in 2007, which occurred at the end of the halibut season, fishermen would lay longline gear in the morning hours and return to the harbor before lunch. Fishermen would then retrieve gear in the early evening, generally arriving back into the harbor well before 10:00 p.m. Engaging in the fishery on a part-time basis provided fishermen with the opportunity to work in other jobs around the community and not have to rely solely on the income from fishing.

There is no local commercial cod fishery as tendering cod is not economically viable, and with the exit of crab processing from the community, the potential for the development of a local market of cod for hanging bait has disappeared.

As mentioned in the St. Paul profile, the CDQ program was initially implemented in 1992 as part of the groundfish management changes of Inshore/Offshore-1. This program allocated a certain percentage of pollock quota to different Alaska communities to aid in economic development through involvement in Bering Sea fisheries. The program expanded in 1998 to include more species, including crab. St. George is part of APICDA, which is a CDQ organization that also includes Akutan, False Pass, Nelson Lagoon, and Nikolski. Table STGE-16 presents the overall CDQ allocations for APICDA for the last year available (2007).

In contrast to the CBSFA, which concentrates its efforts solely on the economic development of St. Paul, APICDA attempts to systematically spread the benefits of the CDQ program between all of their member communities on a revolving basis. For example, at the time of writing in 2007, APICDA had recently finished construction of a new lodge in Nikolski and is currently concentrating on the construction of a harbor in Atka. The year 2008 is slated to center on the construction of a new tourist lodge and a multi-species processing plant in St. George. After these projects are complete, APICDA plans on spending money to construct a lodge and processing plant in Nelson Lagoon. This activity in Nelson Lagoon is slated to start in 2009. This revolving schedule can benefit member communities by funneling a large amount of money at one time, making large-scale efforts (such as the construction of a new lodge or processing plant) possible.





Source: NOAA 2003; Northern Economics 2007

7.5 3.75 0 7.5 15 Miles

Scale = 895,000 1 inch equals approx. 15 miles

Figure STGE-1
Commercial Halibut Catch for Vessels Local to St. George, All Gear Types, 1996 - 2005

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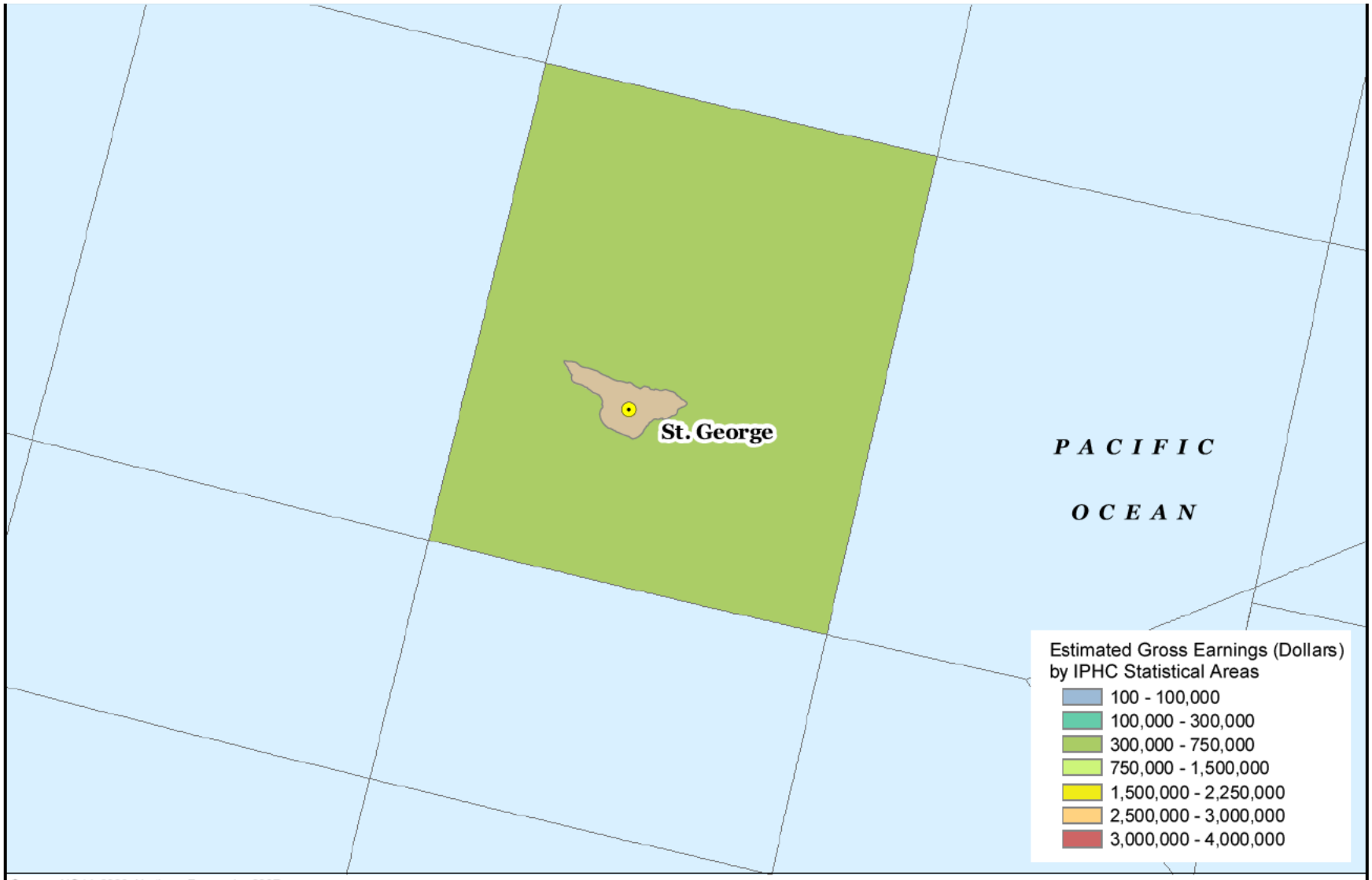

Figure STGE-2
Commercial Halibut Catch for Vessels Local to St. George, All Gear Types, 1996 - 1999

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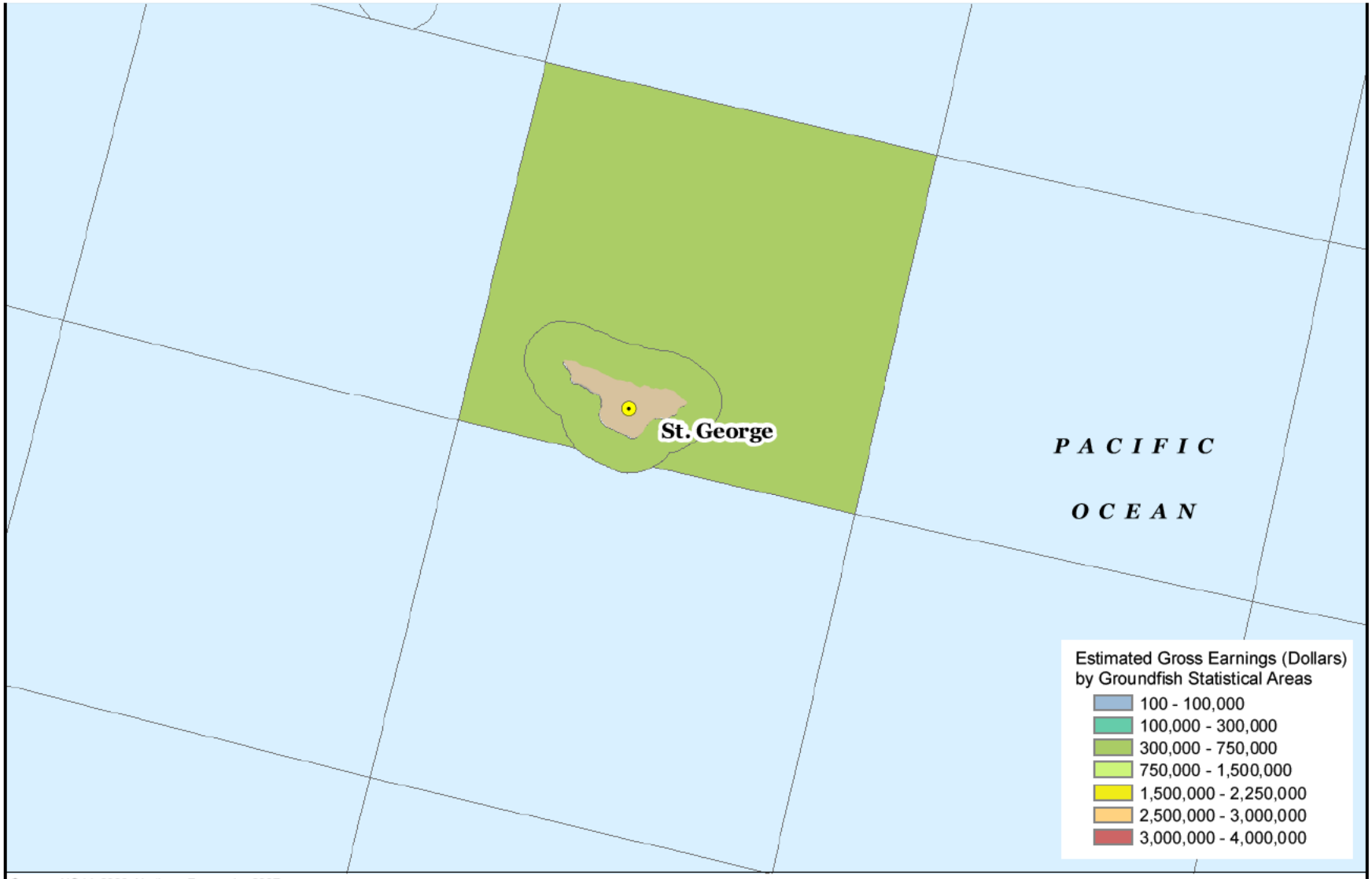
Path: P:\2006\06080403 Baseline Community Profiles\5GIS\MXD\StGeorge\StGeorge_halibut_AG_00_02.mxd, 06/16/08, AugelloP



Source: NOAA 2003; Northern Economics 2007

7 3.5 0 7 14 Miles

Scale = 1:900,000 1 inch equals approx. 14 miles

Figure STGE-3
Commercial Halibut Catch for Vessels Local to St. George, All Gear Types, 2000 - 2002

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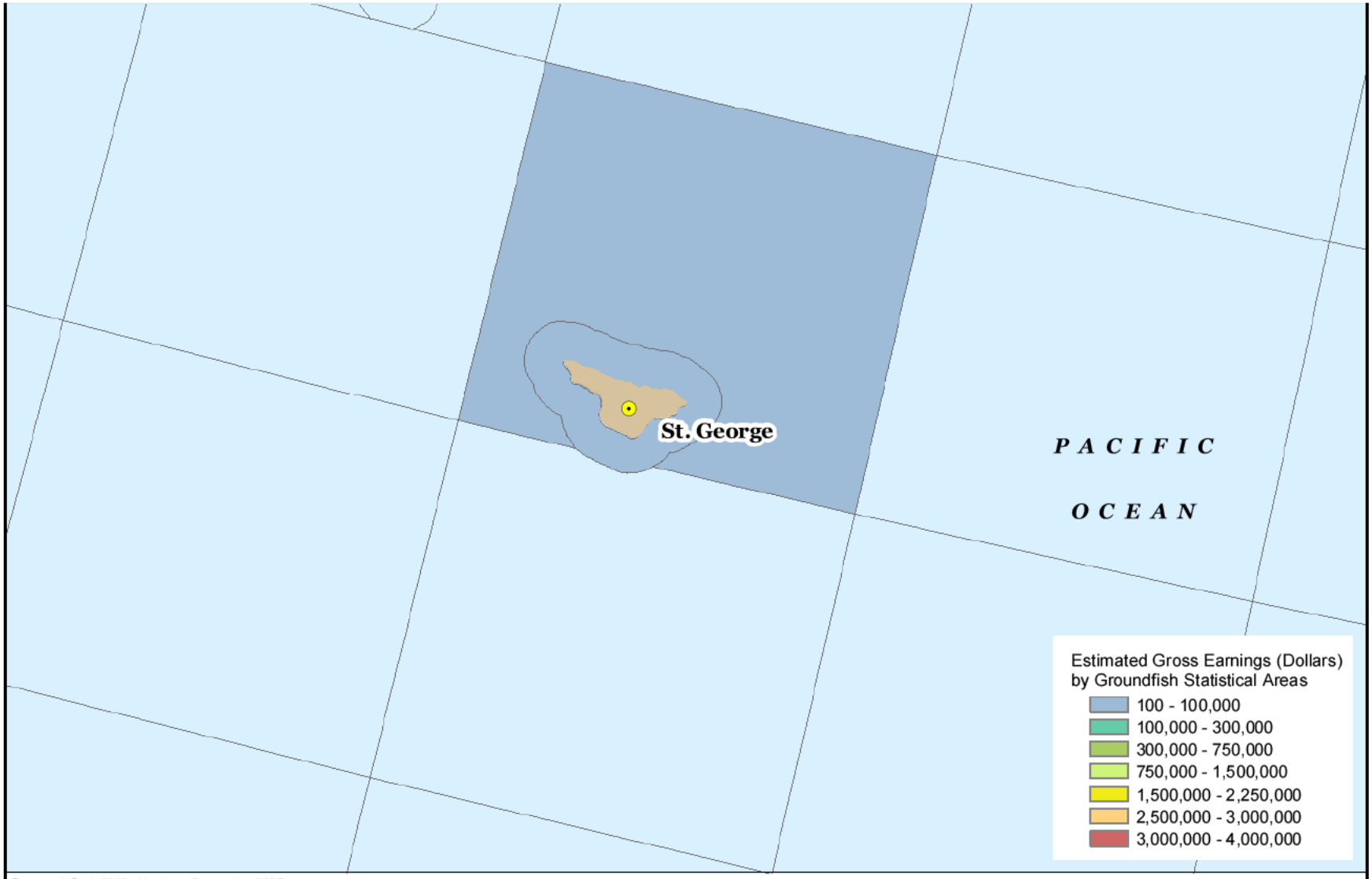

Source: NOAA 2003; Northern Economics 2007

7 3.5 0 7 14 Miles

Scale = 1:900,000 1 inch equals approx. 14 miles

Figure STGE-4
Commercial Halibut Catch for Vessels Local to St. George, All Gear Types, 2003 - 2005

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Table STGE-16. APICDA CDQ Allocations by Percentage of Total Available CDQ

Species	CBSFA Percentage
CDQ Reserve Category	
BS Pollock	14%
AI Pollock	14%
Pacific Cod	15%
BS FG Sablefish	15%
AI FG Sablefish	14%
BS Sablefish	21%
AI Sablefish	26%
WAI Atka Mackerel	30%
CAI Atka Mackerel	30%
EAI/BS Atka Mackerel	30%
Yellowfin Sole	28%
Rock Sole	24%
BS Greenland Turbot	16%
Arrowtooth Flounder	22%
Flathead Sole	20%
WAI Pacific Ocean Perch	30%
CAI Pacific Ocean Perch	30%
EAI Pacific Ocean Perch	30%
PSQ Reserve Category	
Zone 1 Red King Crab	24%
Zone 1 Bairdi Tanner Crab	26%
Zone 2 Bairdi Tanner Crab	24%
Opilio Tanner Crab	25%
Pacific Halibut	22%
Chinook Salmon	14%
Non-Chinook Salmon	14%

Note: BS (Bering Sea); AI (Aleutian Islands); WAI (Western Aleutian Islands); CAI (Central Aleutian Islands); EAI (Eastern Aleutian Islands)
Source: NMFS 2007a

The cyclical nature of the APICDA funding strategy does mean, however, that a large amount of money is not spent in all, or even most, member communities in any given year. In an effort to balance out this annual appropriation of annual funds, APICDA has a number of other, smaller community development opportunities that are open to APICDA community residents every year. These include scholarships, vocational training, employment on APICDA-owned vessels and in APICDA-owner processors, grants to local fishermen associations, and the newly created annual dividend. This dividend program, which began in late 2007, provided dividends to each member community with specific amounts being determined half by an equal distribution between communities and half based on the number of occupied households per community. Under this formula, St. George received an initial dividend of $120,000. The communities have a greater freedom to invest these dividends in non-fishery related development than was previously the case with CDQ-related revenues, or otherwise use these funds for the benefit of the community and its residents. In St. George, a portion of the dividend was used to offset individual household heating costs, while the balance was used to offset community power plant fuel costs.

APICDA also assists community residents with low-interest gear and/or vessel loans, having made approximately $135,000 worth of gear and/or vessel loans to about 24 individuals in St. George, according to staff. Vessels were acquired on a revolving loan basis, with an APICDA/St. George Fishermen's Association joint venture guaranteeing the loans. To date (2007), fewer than 10 vessels in the 25- to 28-foot class have been added to the fleet in this manner. While this still represents a small number of relatively small vessels compared to the fleets of many other communities, this fleet is considered efficient for harvesting St. George's modest local halibut quota. Despite the increase of area 4C halibut from 10 percent to 15 percent for the community of St. George, however, St. George fishermen have been challenged by low catch-per-unit effort and rising fuel prices. APICDA hopes that the loan program will provide St. George residents with the opportunity to invest in larger vessels in the hopes of emulating the recent success of *Nightrider*, which travels afield for longer stretches of time and consistently harvests a profitable amount of halibut during the season.

There are no local crab vessels owned by residents of St. George, although APICDA, of which St. George is a part, does own interests in crab catcher vessels and other vessels that participate in fisheries outside of St. George. APICDA Vessels Inc., a for-profit subsidiary of APICDA, currently owns shares in 12 vessels that participate in a number of different fisheries. These interests can be seen in Table STGE-17. These investments, compounded with the interrelated nature between St. George and other communities inherent in being a part of APICDA, mean that there is a local harvester stake in wider harvesting issues, not only those surrounding the halibut fishery.

Table STGE-17. APICDA Vessels Inc. Assets

Vessel	Fishery	Percentage Held
F/LL Prowler	Cod, Sablefish	20%
F/LL Ocean Prowler	Cod, Sablefish	20%
F/LL Bering Prowler	Cod, Sablefish	20%
F/V *Nightrider*	Halibut	100%
F/V *Taty Z*	Halibut, Sablefish	100%
F/V *Konrad I*	Cod, Pollock, Salmon tender	100%
Aleutian Pribilof #1	Halibut tender	100%
F/V *Farwest Leader*	Crab, Cod	50%
Pogo	Sportfishing charter	100%
F/V *Barbara J*	Crab, Cod, Sablefish, Salmon tender	50%
F/V *Golden Dawn*	Crab, Cod, Pollock	25%
C/P *Starbound*	Pollock	20%

Source: L. Cotter, personal communication, 2008

There is an active St. George Fishermen's Association in the community, and this organization has ties to APICDA to the extent that the APICDA board member representing the community is elected by the fishermen's association, and the association receives approximately $20,000 per year in funding from APICDA to help offset operating expenses. According to local fishermen, the focus of APICDA in recent years has been on infrastructure for crab processing and fostering

a local multispecies processing plant in the community rather than on building a larger harvest fleet in the absence of local processing.

Images of local fishing vessels may be seen in Plates STGE-14, STGE-15, and STGE-16. Photos of fishermen engaged in commercial fishing can be seen in Plates STGE-17 and STGE-18.

5.3.2 Processing

Community Processor Quantitative Description

No processors are currently present in St. George.

Community Processing Characterization

When crab stocks (and quota) were large, smaller inshore floating processors operated in St. George harbor (larger floaters were precluded by the size of the harbor), but with depressed crab stocks such operations have reportedly not been economically viable. For the period 1991-2000, typically one such floater operated in St. George (with two present in 1995). Additional floaters may have operated near St. George but do not have a processing location specified in the available database. Those companies that operated most recently in St. George in this time period (1991-2000) have indicated that their processing platforms have not operated in St. George since 1999 in one case, or since 2000 in the other, so in the years immediately preceding BSAI crab rationalization, St. George saw no local crab processing, although enough processing had taken place in program qualifying years for St. George-based entities to obtain initial allocations of processor quota shares.

According to local sources, in 2000 Blue Wave/Peter Pan did not feel they could economically operate locally in the face of very low crab Guideline Harvest Levels (GHLs), while SnoPac additionally felt that local operations were potentially viable only after APICDA assumed responsibility for 50 percent of the risk in return for 50 percent of potential profits for local operations. APICDA was willing to assume this risk given that without such a move, the community would be entirely cut off from revenues associated with the crab fishery. Despite SnoPac and APICDA apparently reaching this agreement, at least in principle, since 2000 no processors have operated locally for a number of reasons. Primary among these has been the on-going need for completion of repairs to the storm-damaged harbor. According to local sources, the common understanding in St. George now (2007) is that Blue Wave has been sold (although it can be used by Peter Pan to process crab if required) and will likely not be returning to the community, and SnoPac has indicated that, all things being equal, they will not likely be returning to the community until Total Allowable Catch (TAC) volumes are higher.

The withdrawal of the floating processors from the harbor at St. George has had significant consequences for the community as a whole, with marked impacts to support businesses in the community as well as the municipality itself. These are detailed in the support services discussion below.

Current Operations

Puffin Seafoods LLC was organized in 1998 as a partnership between APICDA Joint Ventures (a for-profit division) and the St. George Fishermen's Association. Puffin Seafoods essentially acts as a buyer/facilitator for the fleet harvesting St. George CDQ halibut. In the first year of operations, emphasis was placed on the fresh fish market, but transportation problems related to cost and consistent access to St. George created significant difficulties. In the recent past, fish handling and processing took place in a renovated harbor building. This renovation included APICDA investment, with the ground floor dedicated to fishery activities, and the second floor to the harbor master's office and additional office space. With the recent switch from local halibut processing to tendering from St. George to St. Paul, however, halibut no longer comes ashore, and processing equipment was removed from this facility. Halibut from St. George is currently custom-processed at the Trident facility in St. Paul, and then marketed through APICDA.

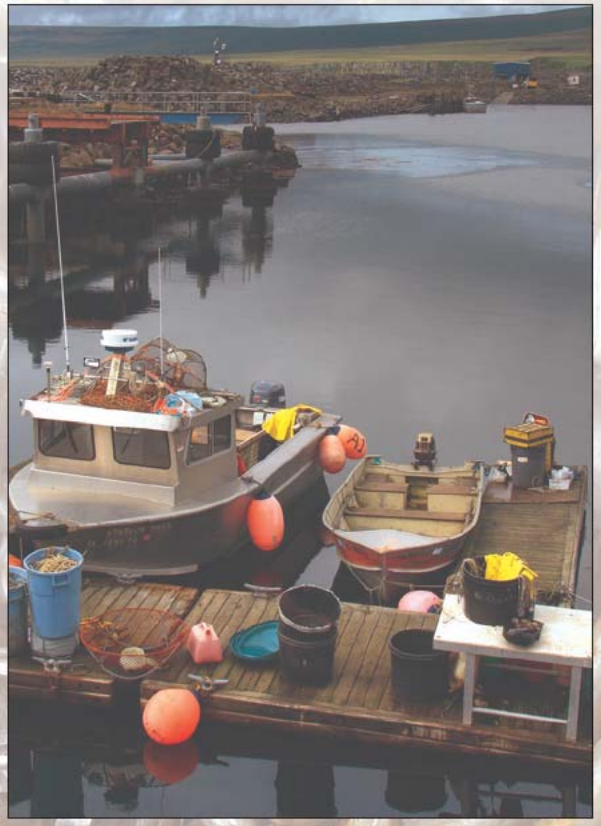
Tendering takes place upon *Aleutian Pribilof #1*, a refrigeration-equipped vessel owned by APICDA and crewed by two St. George residents. The vessel docks in the St. George harbor during halibut season and receives daily halibut offloads from the local fishing vessels. Fish are weighed as they are loaded onto the tender and a weight is given to the fisherman by the tender crew so they estimate the expected ex-vessel value of their catch before it is officially delivered to the St. Paul Trident processing plant. Depending on the available space in the hold, the freshness of the catch, and the weather, *Aleutian Pribilof #1* will make the 5-hour trip to St. Paul to deliver the community's halibut catch. It should be noted that, at the time of fieldwork in 2007, *Aleutian Pribilof #1* was experiencing mechanical problems and was not actively tendering halibut to St. Paul. Instead, *Aleutian Pribilof #1* weighed and accepted transfer of halibut from local fishermen, but acted as refrigerated storage in the harbor of St. George. The physical tendering of halibut was done by another APICDA-owned vessel, *Nightrider*, which would regularly come into the St. George harbor and load the refrigerated catch into its hold for the quick trip to St. Paul. Plates STGE-19 and STGE-20 show images of the transfer and weighing process that takes place in the St. George harbor.

Given that tendering rather than processing has been taking place, this has reduced the economic viability of other local fisheries. For example, it is not presently considered economic to tender cod to St. Paul, effectively meaning the lack of local processing has curtailed local pursuit of this fishery. APICDA is actively exploring the potential for other fisheries, however, that could be pursued by local fishermen and that would help form the underpinning for local processing. In the not too distant past, the St. George Aquaculture Association explored salmon and shellfish programs, but environmental concerns and controversy surrounding the introduction of nonnative species to St. George prevented the programs from being fully developed. A local sea urchin fishery was also reportedly a possibility, and APICDA had been working with ADF&G on survey assessments of the potential for this fishery. Unfortunately, the results of a sea urchin study suggested that a commercial sea urchin fishery would not be economically viable. The potential for crab boats turning to pot cod for local processing following the closure of crab season has also specifically been mentioned.

ST. GEORGE

PLATE
STGE-14
HARVEST SECTOR

All: Larger vessels (used for the commercial fishery) and small skiffs share the floating dock in the harbor



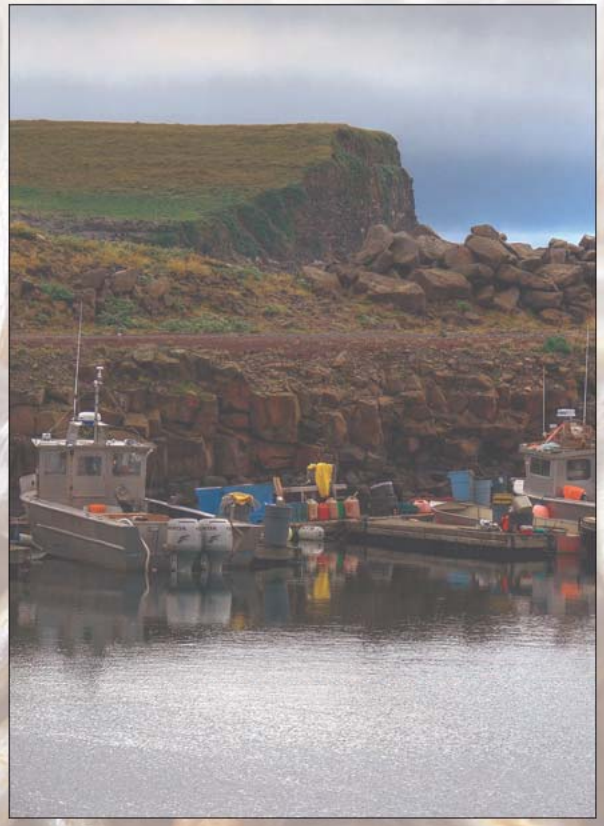


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PLATE
STGE-15
HARVEST SECTOR

Top Left: *Cornelia Marie*, a vessel used for commercial halibut fishing

Top Right: A small skiff used for subsistence fishing

Bottom Left: *Oceanmists*, a vessel used for commercial halibut fishing

Bottom Right: *Tamarri*, a vessel used for commercial halibut fishing

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PLATE
STGE-16
HARVEST SECTOR

All: Vessels not used for commercial or subsistence fishing are kept in open space near the community

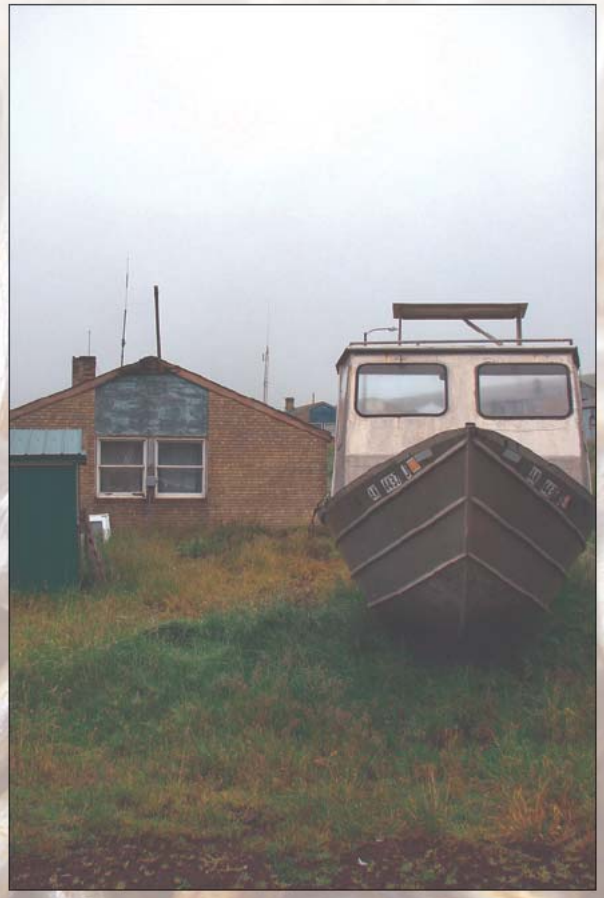

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PLATE
STGE-17
HARVEST SECTOR

Top: A commercial halibut fisherman directs a crew member to steer the vessel to productive fishing grounds

Bottom Left: A fisherman puts down longline gear with bait

Bottom Right: A fisherman pulls up longline gear hours later

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PLATE
STGE-18
HARVEST SECTOR

Top: A commercial halibut fisherman baits a jigging hook

Bottom Left: A fisherman jigs for halibut

Bottom Right: A small halibut is filleted for personal use

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ST. GEORGE

PLATE
STGE-19
PROCESSING SECTOR

Top: A commercial halibut fisherman loads a previously caught fish for transport to a waiting tender

Bottom Left: A fisherman steadies the net as the tender operator weighs the halibut catch

Bottom Right: The tender operators unload the halibut into the vessel's refrigerated hold

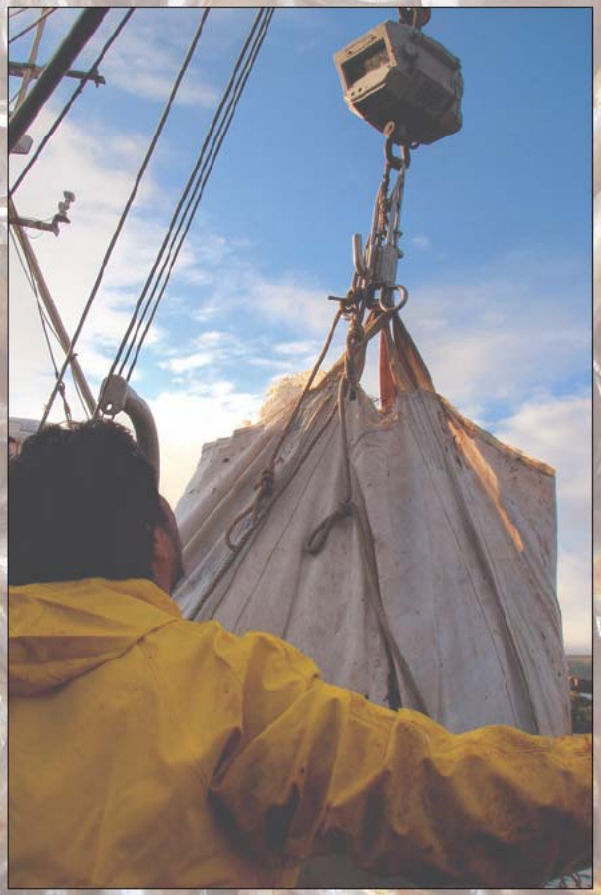

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PLATE
STGE-20
PROCESSING SECTOR

Top Left: *Aleutian Pribilof #1*, the tender for halibut between St. George and St. Paul

Top Right: Fishermen load halibut into a net for transfer and weighing

Bottom Left: The tender operator hoists a full net of halibut

Bottom Right: The tender operators unload the halibut onto their deck

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Few local residents (estimated by one source as approximately one or two people every year) are reported to have derived employment from processing work on factory trawlers or factory longliners in which APICDA is invested. This is reportedly because employment outside the community is less appealing to local residents than attempting to find employment within the community. Thus, APICDA has stated that creating opportunities within the community is more of an objective than providing employment opportunities on owned vessels or processors.

One of the primary goals of local fishing interests and APICDA is the construction of a seafood processing facility on St. George. In 2007, APICDA was moving forward in the planning and permitting of a multi-species processor on St. George. A total of $2 million has been granted by the Economic Development Administration, which was matched by $1 million in funds from APICDA. The plant is planned to initially purchase and process all area 4C halibut CDQ managed by APICDA, as well as IFQ from area 4D. The plant is expected to produce H&G product, fillets, and fletches. If cod processing becomes an economically viable option, the planned plant may extend to this species, as well. Of course, if opilio crab stocks rebound in the area, the plant is also expected to process crab.

As of fieldwork in 2007, plans for the processing plant were experiencing some challenges related to available space in the dock area, site locations, and outfall placement. The harbor is located near an important fur seal rookery as well as bird nesting sites, and there are environmental concerns regarding the amount of outfall (particularly for cod processing) potentially produced by a processing plant—despite the fact that a processing plant has operated in St. George in the past. If environmental and siting concerns prevent a processing plant from being placed onshore, there is a small chance that APICDA would place a floating processor near the island in an attempt to create nearby employment opportunities for St. George residents.

It is the strong opinion of St. George community leaders that if St. George is forced to join forces with St. Paul for a common multispecies processing plant, the benefits of that operation would redound to St. Paul and do little for St. George (other than make it all the more difficult to accomplish a sustainable local fisheries sector of the community economy).

5.3.3 Support Services

The support services sector in St. George has changed dramatically in the last few years with the disappearance of crab processing in the community. St. George, like neighboring St. Paul (and the other rural Alaska communities profiled), is accessible only by air and sea. With a relatively small local fleet, there is little economic incentive for fishery-specific support services to exist in St. George. Instead, businesses and facilities primarily in place to serve the local residents or the occasional tourist will cater to the fishing industry on an as-needed basis. Images of some of the support services and community facilities in St. George may be seen in Plates STGE-21, STGE-22, STGE-23, STGE-24, and STGE-25.

In general, only limited support services exist in St. George compared to a number of other fishery-associated communities, although harbor development continues and the community in conjunction with APICDA is working toward establishing a local small-scale, multi-species processor that could, in turn, support local (community) fishermen. At present, the support

facilities that do exist are more oriented toward supporting the big boats associated with commercial crabbing rather than the smaller-scale local fleet, although the downsizing of Delta Fuel and the installation of a floating dock for small boats is slowly changing this dynamic. In 2002, a new floating dock system designed for local boats and funded at approximately $200,000 through crab disaster monies was added to the harbor. Every small, privately owned boat currently uses this floating dock, which contains six slips. Three of the vessels that regularly use the floating dock are engaged in the commercial fishery, and four other small skiffs are used in the subsistence fishery.

Of all of the communities profiled in this document, the economy of St. George is arguably the least robust, having scaled back considerably since the crab crash and the termination of local seafood processing. According to community leaders, it is difficult to tell young people there is a good future for them in St. George when the overall community economic picture is not bright. This economic downturn has resulted in a number of people leaving the island, as well. Loss of population is not new to the island as, for example, local officials noted that during the 1960s the federal government encouraged St. George residents to move to St. Paul. But, in recent years, some local residents have moved to Adak, Anchorage, or Homer for job opportunities or to be closer to advanced medical care. While it cannot be discussed in quantitative terms, one village leader observed that the depressed local economy and the apparent lack of economic potential for the future, "takes the pride out of the community."

Another recent change in the support businesses in the community can be seen in the decline of what could be characterized as very small or entrepreneurial businesses. Within the recent past, residents report that a video store, two restaurants (one run by the Traditional Council and other independently owned and operated), a hat and jacket embroidery business, a rug cleaning business, and a housegoods store have closed. Reasons provided by interviewees for the struggles of small businesses on St. George include everything from entrepreneurial inexperience, inventory and logistical problems, and the trend of family members to resist paying other family members for goods and services in a timely manner. Even with the absence of sales tax, abolished to spur local economic activity and help small businesses, small businesses have had trouble staying competitive with outside businesses. The absence of crab-related activity, in the form of both visiting vessels and visiting processor workers, also has meant a loss of opportunity for the sale of local arts and crafts (commonly done through the community store), as well as a loss in electronics sales, in particular at the store.

The economic loss is coupled with the reported loss of direct social benefits of having processing entities and their workers in the community. While difficult to quantify, according to those responsible for social services in the community, the presence of the processing entities provided a lot of social activity for the community and brought different people to the community, which was in and of itself a positive attribute for a small, relatively isolated village. The processors also were instrumental to the success of such things as volleyball and other sports tournaments and were active in fundraisers for the community. While not in the community the entire year, they were reportedly involved in community Halloween, Christmas, and Easter events in one way or another, including the donation of funds and raffle prizes. Other recognized contributions to the community included donations of food to those in need as well as for the local summer camp. At times processors would invite the community to social events at the

ST. GEORGE

PLATE
STGE-21
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Exterior of the St. George Canteen

Top Right: Interior of the St. George Canteen

Bottom Left: Exterior of the St. George post office and Tanaq Corporation offices

Bottom Right: Interior of the St. George post office

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PLATE
STGE-22
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: St. George School

Top Right: High school students use cameras and televisions to participate in classes held on St. Paul

Bottom Left: Elementary students learn about homophones

Bottom Right: Gym equipment is available for use by students and residents

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PLATE
STGE-23
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: City offices

Top Right: VPSO station, garage, and jail

Bottom Left: St. George Traditional Council Offices

Bottom Right: Emergency vehicles housed in the VPSO station

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PLATE
STGE-24
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: St. George clinic

Top Right: Teleconferencing equipment used in the St. George clinic

Bottom Left: Emergency room in the St. George clinic

Bottom Right: PenAir services at the St. George airport

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PLATE
STGE-25
SUPPORT SERVICES AND COMMUNITY FACILITIES

Top Left: Aikow Inn

Top Right: 40-man camp and PenAir offices

Bottom Left: Crab pot storage

Bottom Right: Delta Fuel

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processing facilities, with examples of a movie night and a talent show given. In the words of one community leader, having the processors was "good for morale in the community," there were "no problems in the community" because of the processors, and they were "welcomed into the village." While potlucks, raffles, dances, and other community events still occur regularly in St. George, the loss of local processing has made a difference in these intangibles of community life.

Shipping

Whereas there used to be barge service several times per month to the community during the years of local crab processing, at present (2007) most freight and supplies are delivered by air from Anchorage, while cargo by barge arrives once or twice a year. This drop in service has resulted in a number of impacts, such as increasing cost and decreasing availability for a number of items, including foodstuffs. During crab processing times, Northern Air Cargo would service the community several times per week with commercial shipping and bypass mail. Currently, Alaska Central Express provides cargo and mail service to St. George six times a week. These flights are cancelled less than passenger flights because cargo aircraft are allowed to land in more treacherous weather. Still, cancellations during the summer months are common.

Aviation Support

A newly constructed State-owned airport with a 5,000-foot runway is near the harbor, several miles outside of the community proper and serviced by a recently widened and improved road from the community. Scheduled flights are provided to St. Paul and Anchorage. At present (2007), there are three scheduled flights weekly to Anchorage, with one flight per week connecting back through St. Paul. These three flights a week, however, are a significant drop in service from levels seen during the era when local crab processing took place. Compounding this reduction is the fact that flights are regularly cancelled due to bad weather, especially during the summer months. Despite PenAir's best efforts to work around the weather, including delaying connecting flights in St. Paul or Anchorage to wait for the fog to clear, it is not uncommon for visitors to stay in St. George for a few extra days waiting for a flight to land. Stories of tourists stranded for a week or more are not uncommon. People anxious to reach and/or depart St. George during the summer are sometimes urged to hitch a ride on a local fishing vessel or the APICDA tender to St. Paul, as community boats regularly make the trip to St. Paul for groceries or, during halibut season, to transport caught fish. Flights from St. Paul are more frequent and more reliable than on St. George, so the 3- to 5-hour boat ride between the islands could save 2 or more days of waiting for a flight in St. George. Crew changes rarely happen in St. George due to the configuration of the harbor (as detailed below) and the inconsistency of flights in the summer. Thus, most crew changes in the region are conducted out of St. Paul. The airport is owned by the Alaska Department of Transportation, but the City of St. George maintains the buildings and runway, which includes snow removal. There are five local PenAir employees, all of whom are part-time, who handle baggage, ticketing, and ground crew duties. Pilots are warned of flocks of seabirds and low visibility under 1000 feet above ground level between the months of May and October (FAA 2007).

Harbor Facilities

Zapadni Bay Harbor, 5 miles from the city, was completed in 1993. Previous facilities, off of the former seal processing facilities in the community itself, are exposed to the open sea and required lightering. Lightering was often accomplished using traditional baidars, skin, and later canvas-covered wooden framed vessels that could handle surprisingly heavy loads, including trucks. The exposed dock facilities and the surrounding area were deemed not practical for redevelopment as a more full-service facility, although historical plans in the community show harbor improvement drawings with massive breakwaters dating from the early 1900s.

An inner harbor and dock were completed during the 1990s in Zapadni Bay by Kayux Development LLC, a joint venture formed in 1996 between APICDA Joint Ventures and the St. George Tanaq Corporation. The inner harbor development consists of 4 acres of improved uplands and a 1.25-acre mooring basin, and available services include dockside power, water, and fuel delivery; moorage; uplands storage; and outfall and breasting dolphins for a shoreside or floating processing facility. According to APICDA, the CDQ organization has made substantial investments in community fisheries-related infrastructure projects, including approximately $1.3 million in matching funds for the dredging of the inner harbor in 1993 (with a benefit to APICDA deriving from a lease arrangement for waterfront space), and an approximate $1.8 million investment in 1998 for dock facilities (with the Tanaq Corporation providing the land). In its present configuration, the city owns two dock facilities in the harbor where most recently SnoPac and Blue Wave floating processors worked (one of these facilities includes two concrete dock platforms, while the other does not have analogous features), and a boat ramp for small vessels on the western edge of the harbor. The Tanaq Corporation/APICDA joint venture owns two other major improved docking facilities, one with a single concrete dock platform, and one without. The St. George Fishermen's Association installed a wooden floating dock in the extreme eastern end of the harbor for the local small boat fleet in 2002, which was still in use in 2007. Dockage for the local fleet is located south of the east Tanaq dock. There is a 500,000-gallon water storage tank near the harbor available to supply fishing and processing entities, but this has been virtually inactive as of late and was recently (2007) decertified as potable water.

There are local concerns that maintenance of the harbor will be more costly than anticipated (one of the arms of the harbor was recently fixed, the dredging needs improvement, the harbor tends to collect silt, and concerns over damage to the nearby St. George Delta Fuel facilities from weather have been raised), and that costly work will be difficult to undertake in the absence of substantial commercial activity at the facility. A conundrum of local harbor development is that local processing appears to make more economic sense for at least some companies in a derby rather than a rationalized fishery, but harbor size and geometry combined with occasionally rough sea conditions have meant that St. George has at times experienced periods of closure during the relatively short seasons. Today (2007), the harbor at St. George has a reputation among medium-to-larger vessels as being difficult to navigate and dangerously shallow due to its alignment with the prevailing current and its propensity to collect silt.[42] With no local processor,

[42] The challenges of St. George's harbor have been seen on Discovery Channel's *Deadliest Catch* episode 32, which details *Farwest Leader*'s navigation of the harbor. While dramatically edited for effect, the sequence in the episode does demonstrate the level of experience and skill needed to move through the harbor safely when wind and sea conditions are challenging.

and two fuel choices 47 miles away, there is little incentive for outside vessels to use the harbor facilities at St. George. According to community members, activity only picks up when St. Paul becomes iced in during the winter, which happens rarely. The general level of inactivity by outside vessels at the St. George harbor, the recent destruction of the harbormaster building by wind, and a reduction in city staff has created a system where the dock is now unmanned much of the time.

Marine and Other Fuel Sales

St. George Delta Fuel, a local fuel facility adjacent to the harbor, operated as a joint venture between the Tanaq Corporation and Delta Western, includes a 1-million-gallon tank farm and supplies diesel fuel to fishing vessels and home heating, aviation fuel for aircraft, and gasoline for automobiles. Constructed in 1993, the facility first delivered fuel to vessels in 1994. (The tank farm also includes a 50,000-gallon gasoline tank and a 50,000-gallon Jet A fuel tank for local vehicle and aircraft consumption, respectively.) A pipe system is in place to allow delivery direct to vessels at four fuel stations on docks in the harbor. Designed to allow for race-for-fish conditions, the vessel fueling system has a 600-gallon-per-minute delivery capacity (if the receiving vessel is properly equipped). During busy crab periods, operations could extend to 24 hours per day, and peak demands were reached in-season when facilities at St. Paul would occasionally close due to ice conditions. Under these circumstances, demand reportedly could easily reach 150,000 to 200,000 gallons per day, with the facility manager reporting that the 24-hour record for sales was over double that figure. With the decline in crab quota and the move of processing out of the community, fuel demand has dropped sharply. Built primarily to supply the crab fishery, the facility has reportedly seen a drop from approximately $1 million in revenues to a situation where it is currently "barely surviving," and employment has been cut from eight to three individuals over this same time, with only one full-time employee. This has had ripple effects in other aspects of community life as commercial fisheries fuel sales effectively acted as a fuel cost subsidy for the rest of the community. Without commercial marine sales, fuel costs have risen, and this has reportedly resulted in increased utility costs in the community, meaning that at the same time the community is experiencing a loss of revenue and employment, the cost of living is increasing. Incidental sales to vessels fueling at the facility, such as oil, filters, and batteries, have also dropped to near zero. During fieldwork in 2007, St. George Delta Fuel was in the process of downsizing their fueling facility to better serve the community while increasing profits. The 1-million-gallon diesel tank farm was being replaced with four 20,000-gallon tanks, while the 50,000-gallon Jet A and gasoline tanks were replaced by 25,000-gallon tanks. The new tanks will simplify regulations and transport, as the U.S. Coast Guard will not have to oversee transfer to the smaller tanks. Marine sales are almost entirely to the local fleet, but even some of these vessels choose to refuel in St. Paul where diesel is less expensive. Revenue is generally received from the sale of automotive gasoline, Jet A fuel, home heating fuel, and fuel for the city power plant and school. Seasonal construction work, including the recent paving of the airport runway, has provided some revenue in the absence of marine sales, and temporary local environmental cleanup work has also served to offset at least a portion of the losses experienced at the fuel facility, as the soil remediation technique being used consumes a significant quantity of fuel.

General and Hardware/Marine Supply Stores

The St. George Canteen, the community store operated by the Traditional Council, has also seen a decline in business as a result of the community's loss of crab-related activity. Store management reports that vessel orders have ceased entirely, along with special orders from the SnoPac processor, for an estimated loss of between $100,000 and $125,000, a not insignificant sum for a small community enterprise. Today (2007), the St. George Canteen services only the local community. As most of the local halibut fishing crews only go out during the day—sometimes returning home for lunch—it is uncommon for purchases to be made specifically for fishing vessel crews since many fishermen and crew members eat at home. Thus, only one halibut boat, *Nightrider*, purchases anything at the Canteen specifically for longer outings. In the past, the St. George Canteen would stock crab and halibut gear, including gloves, line, buoys, hooks, and jig gear. At the time of fieldwork (2007), however, the only fishing gear stocked with any regularity is gloves and knives. Other products in inventory include dry goods, canned products, cleaning supplies, hardware, frozen meat, candy, and a small selection of vegetables. Approximately 90 percent of the stock is flown in, with the remaining 10 percent barged in whenever a barge comes to town. Barged items are generally those considered hazardous materials by the airlines (i.e., anything pressurized or chemically dangerous), as there is a hazardous materials handling fee applied to flown items that can make them prohibitively expensive. Other stock items are flown through the bypass system, which places items on aircraft only as open space is available. Items flown this way are shipped at a lower rate but they are not insurable. It is estimated that approximately $3,500 of product was lost last year as a result of shipping via the bypass system, with some products sitting in airport storage for days waiting for open space.

St. George Canteen management reports that 95 percent of business can be attributed to locals, while 5 percent can be attributed to visitors and other nonresidents. These outside sales generally include visiting contractors and tourists, although some large contractor companies ship in their own supplies and tourists are less likely to purchase anything more than a snack or postcard. Among locals, popular items include frozen items, including meats, bottled water, water filters, and cigarettes. Business is generally better in the summer months when halibut season is in progress. This higher level of activity can last until November, with Permanent Fund payments in October providing an extra boost after the end of halibut season. An average day at any time during the year brings in approximately $2,500 in business, with a light day bringing $1,400. Employment at the St. George Canteen includes three full-time employees and two part-time employees. In the recent past, maintaining a viable store was considered "a stretch," but store management reports that business is "not bad for the size of the community." Sales at the store are enhanced by the operation of a small beer hall, which operates one half-hour on Tuesdays and Fridays. With no bar in town, the beer hall is the only local place to purchase alcohol and prices have openly been marked up to offset losses seen by the Canteen on general grocery sales.

Alaska Native Claims Settlement Act Corporations

In addition to being an investor in fuel services, the Tanaq Corporation also has a crab pot hauling and storage service to help support the regional fleet. Hauling fees are $17 per pot round

trip and storage is $3 per pot for six months. The pot storage area is composed of leveled uplands that were also used as staging areas during harbor dredging operations. However, without local processors present, and with the drop in GHL/TAC, the use of these crab support services has reportedly dropped off dramatically as well. From 1994 to 2001, revenues related to crab pot storage and hauling have declined steadily from a high of $101,929 in 1994 to $9,100 in 2001. Revenues from this service peaked again in 2002, with $22,080 coming in that year. Since then, however, the Tanaq Corporation reports not receiving any revenue from either crab pot hauling or storage, although there are a number of pots still in the storage area. With storage capacity of over 10,000 pots, only about 500 were being stored on-site at the time of fieldwork (2007), although it was unclear as to whether most of these pots were being stored for later retrieval or merely abandoned in place. Local residents report that, in the past year (2006), only one or two boats have retrieved gear, in contrast to 20 to 30 vessels actively moving gear several years ago. While there was reportedly a large drop-off in the pot storage business with the crab crash of 1999-2000, business has gotten worse in the intervening years, both prior to and following the implementation of BSAI crab rationalization. Reportedly, crab rationalization reinforced, but did not precipitate, the trend of declining gear storage and apparent cessation of associated vessel support revenues. Allegedly, underwater pot storage is occurring near the island in areas where trawling is known not to occur, but the Tanaq Corporation does not derive revenue from this activity. In the past, peak crab gear related service demand conditions were driven by ice movements, with vessels racing to retrieve gear from the grounds in front of advancing ice to the north of the island. Revenue losses from the absence of the fleet are locally estimated to be in the $50,000 to $100,000 per year range for storage and associated support.

Other property in St. George owned by the Tanaq Corporation and used for storage includes a large building near the harbor, formerly used for fiber/boxing materials for processing, that is now used to store large equipment (i.e., backhoe, loaders, bobcats) and part of the space is rented to NOAA for storage of government equipment. This large equipment is available for rent and is used seasonally to load and move gear and for construction. In the recent past, the Tanaq Corporation also managed truck rental, but they have recently stopped, leaving the Traditional Council as the only entity that manages truck rental on the island. Finally, the Tanaq Corporation owns the carpentry shop near the center of town in which other equipment is stored and made available for rent.

One of the entities that processed locally up until 2001, SnoPac, leased land from the Tanaq Corporation and maintained their own generation plant, sewer system, and bunkhouse with an adjacent kitchen/mess hall for processing crew. The bunkhouse facility was relocated to St. George from St. Paul and had a capacity of approximately 200 to 250 persons. With the suspension of local crab activity, this facility was also idled, although lease payments were eventually made to the Tanaq Corporation through the use of crab disaster funds. The future of the lease arrangements is not clear, however, absent future local processing. The Tanaq Corporation also derived income from leasing land to Northland Services for freight operations to move crab from the community (dockside space as well as upland storage areas for containers), but this source of revenue has gone away with the processing.

The Tanaq Corporation also has a 40-man camp/bunkhouse facility near the harbor that was brought to the community primarily to support processing crews, although it was also used as

temporary housing for harbor dredging workers. Brought to the community from the lower 48 states, it required additional (and unanticipated) investment to bring it up to more stringent fire code standards. Formerly leased out to Seven Seas and Blue Wave, this facility has been relatively idle since the decline of local crab processing. With an estimated loss of $60,000 per month for a typical 3 months per year of operation, this has not been an insubstantial impact to the corporation. Demand for camp housing dropped when GHL declined to the point where one rather than two shifts were all that were needed to process product, and then disappeared altogether when GHL declined below the threshold needed to efficiently process locally. The 40-man camp has only been used recently to house large construction crews, including the construction crew that paved the runway, but this use is infrequent and construction crews are generally not large enough to require the space available at the 40-man camp. Smaller crews, such as the crew associated with the downsizing of the fuel tanks, stay in the Tanaq Annex. The Tanaq Annex is composed of six rooms located in the Tanaq building (which also houses the post office and grocery store). The Tanaq Corporation also owns a house in Old Town/Uptown, "Cottage G," which is rented to more responsible, long-term visitors to St. George, including federal employees.

In all, the Tanaq Corporation estimates that approximately one-half of its budgeted revenue sources were related to crab support operations. For a time, the corporation had reportedly made up enough of this shortfall through ongoing environmental cleanup work to not have to cut its workforce (estimated at 6 regular employees, with an additional 12 or so active for specific projects). Past cleanup work has included remediation of former government structures, underground and aboveground storage tanks at former government buildings, and contaminated soils. More recently, however, cleanup work has slowed, and Tanaq Corporation employment has been cut to four employees, all of whom are considered part-time. Thus, it would appear that substantial impacts associated with crab losses were merely delayed rather than avoided. In the face of the economic declines in the community, the Tanaq Corporation is actively looking for opportunities outside of the community to bring revenue to its shareholders, with the trade-off being that such opportunities do not afford the same potential for local employment.

Tribal Organizations

With no small businesses currently in operation on St. George, it is perhaps unsurprising that the Traditional Council is the largest employer in the community. At the time of fieldwork in 2007, the St. George Traditional Council employed 12 workers—10 full-time employees, and 2 part-time employees. While this number includes the clinic and store employees mentioned above, the remaining workers are located in the council office itself or in the St. George Traditional Council Kayumixtax Environmental Conservation Office (ECO Office). The Kayumixtax ECO Office is the prime co-management entity within the Traditional Council and assists in monitoring the fur seal harvest, Steller sea lion haulouts, the movement and health of the local reindeer herd, and potential rat infestations. Lately, the Kayumixtax ECO Office has been using remote cameras to monitor Steller sea lions on the edges of the island, as well as conducting research providing a baseline of killer whale activity in the region. In addition to these co-management and research endeavors, Kayumixtax ECO Office staff have also been organizing a recycling program for the island and working with outside investors to explore alternative energy opportunities, including wind and tidal power energy generation.

One the of the main objectives of the Kayumixtax ECO Office is to protect and preserve the biological and natural resources of the island, which interface directly with eco-tourism present on the island. According to community members, approximately two to three small cruise ships stop at St. George Island over the course of a year, although six to eight arrived during the 2006-2007 season. Each cruise ship visit brings approximately 90 to 130 people to the island (if only for a few hours), easily eclipsing the number of tourists who annually arrive by plane. At first, these cruise ship visitors had little to do on the island other than wander around town and take pictures. More recently, however, the St. George Traditional Council has created the St. George Institute, which recently received $50,000 in grant money to build a tourism infrastructure on St. George. This money has been used to create a traditional dance troupe that performs for large groups of visitors and organize potlucks featuring traditional foods including fish pie and seal. The St. George Institute also takes tourists to visit the fur seal blinds, auklet and murre colonies, and seal processing washhouse—a national historic landmark. The St. George Traditional Council also provides the only vehicle rental on the island and can provide visitors with maps; seal blind permits; and a guide detailing the history of the island, local contact information, and proper etiquette for viewing wildlife and traveling across tundra. The recent increase in visiting cruise ships is attributed to the level of service provided to visitors, cultural activities, and surrounding dramatic landscape. While not directly invested in the planned lodge, the St. George Traditional Council stands to benefit dramatically by increased tourism of any kind on the island as a result of the activities conducted by the St. George Institute.

Finally, it should be noted that the St. George Traditional Council also conducts an after-school activity group for children in cooperation with the APIA. This program offers dances, substance abuse outreach and education, and Aleut language classes for local children.

Lodging and Restaurants

The Aikow Inn is currently (2007) the only formal hotel on St. George, despite similar amenities in the Tanaq Annex and 40-man camp. The 10-room Tanaq Corporation-owned hotel, in the community proper, has also reportedly seen a substantial loss of business with the decline of crab-related trade, although it remains busy in the summer with tourism and other seasonal business, including construction-related work. Small work crews have been known to occupy all 10 rooms at a time, creating a temporary accommodation crunch during busy parts of the season. Government employees and contractors regularly stay at the Aikow Inn throughout the year and the innkeeper reports that business, while seasonally busy in the summer months, exists throughout the year. The Aikow Inn features a fully functional kitchen for visitor use (including new appliances), laundry facilities, and a small gift shop.

5.3.4 Other Local Business/Service Activity

City of St. George

St. George is a second-class city incorporated in 1983. The local government includes a mayor, a seven-person city council, regional school board, planning commission, and a few municipal employees (Sepez et al. 2005). At the time of fieldwork, the total number of municipal employees tallied at 4, although upwards of 20 had been employed in the recent past. The city

does not impose a sales tax or property tax, in part to encourage the development of small business. The city does, however, impose a 3 percent Fish and Marine Products Tax and a $.03/gallon Fuel Transfer Tax. The city maintains the airport (although the airport itself is owned by the Alaska Department of Transportation), runs the power plant, collects garbage, provides water and sewer service, maintains the road system, and coordinates the volunteer fire department. The city also manages the Village Public Safety Officer (VPSO) and maintains a new $2 million jail and garage facility near the city offices.

St. George Clinic

Another indirect support service impact seen in recent years with the drop-off of local crab deliveries and processing has been support services at the local clinic. Operated through the Eastern Aleutian Tribes and managed locally by the St. George Traditional Council, the clinic derived benefit from the increased level of activity during the previous seasons that brought vessel crew and processing workers to the community, and industrial-type versus residential-type of service demand. Quantitative data to document the change in service demand over recent years were not available (at least in part due to staffing cutbacks caused by drop in the service demand itself), but without crab-related business the Traditional Council staff reports that the clinic had been experiencing a loss of approximately $45,000 per year in third-party billings compared to crab processing years. During the period of local crab processing, the clinic was staffed with a physician's assistant, two community health aides, and a clerk; staffing is now down to two positions, a full-time clinical health information specialist (CHIS) and a community health aide. Emergency assistance is provided by a community volunteer emergency trauma technician. A general practitioner visits the island twice a year, as does a dental team. Obstetrical and gynecological services are provided once yearly by a visiting doctor, and diabetes education and outreach is also provided annually. In contrast to nearby St. Paul, there are no regular optometry visits. Other services are provided via teleconference or through other remote means, including meetings with mental health professionals and the management of prescriptions (through a PickPoint machine). Common ailments in St. George include sore throats, infections, stitches, prenatal needs, and control of chronic ailments including diabetes and high blood pressure. Summer is considered the busiest time of the year, with approximately 20 to 35 people seen per week and 75 to 100 people a month, although there was only one fishery-related injury in 2007. Trauma is relatively rare in St. George, although the Coast Guard can transport someone from St. George to St. Paul for emergency services, or medivac to Anchorage if needed. Clinic staff report that there was more local resident demand even 5 years ago, but reduction in services has resulted in a number of individuals and families (many with chronic or life-threatening conditions) leaving the island for more advanced medical care in closer proximity.

U.S. Fish and Wildlife Service

The USFWS operates throughout the year on St. George out of a residential home near the clinic. The USFWS manages and monitors the bird colonies along the cliffs and other areas throughout the island of St. George. These areas are part of the Alaska Maritime National Wildlife Refuge and host approximately 2 million seabirds of 12 different species throughout the year. This includes a large thick-billed murre colony, the largest in the state of Alaska, and approximately

80 percent of the world's population of red-legged kittiwakes. USFWS personnel also assist in conducting fur seal counts at the various rookeries around the island, as well as monitoring and exterminating rats, which are nonnative to St. George and could decimate the seabird population. These activities are in cooperation with the St. George Kayumixtax ECO Office, which also builds and monitors rat-catching stations around the island and monitors the fur seal rookeries. The USFWS also cooperates with the Kayumixtax ECO Office during the annual seal harvest by acting as an outside humane observer of the activities. One USFWS employee is stationed in St. George all year. Employment generally increases, however, from mid-May to mid-September, when two to four people, which can include official USFWS employees or outside research staff working with the USFWS, come to the island to assist in monitoring the bird colonies or other wildlife issues. It is not uncommon for USFWS employees from St. George to make trips to neighboring St. Paul to meet about the efficacy of rat extermination measures and/or the health of the bird colonies on the island during these summer months. An additional USFWS employee may also visit the island during the autumn to assist in observing the seal harvest. While the USFWS currently (2007) operates out of a residential home, some gear is stored within the seal processing plant and it is the hope of USFWS staff in St. George that their offices can be relocated to within the processing plant as it transforms into a museum and interpretive center.

Tourism

The scenery and wildlife of St. George is seen by many on the island as a key resource for the growth of tourism on the island. As described above, tourism has increased in recent years with cruise ships visiting the island on a semi-regular basis. APICDA, however, believes that tourism may be increased by the construction of a new lodge in St. George, just as construction of a new lodge in Nikolski by APICDA improved tourism in that small community. The lodge in St. George is planned to cater to hunters, fishermen, bird watchers, and marine mammal enthusiasts. The lodge is planned to accommodate up to 20 people, although an initial occupancy of 10 to 12 is planned. The lodge would be located just east of the town of St. George and would most likely consist of a central great room, library, gift shop, dining room, kitchen, itinerant suite, laundry facilities, and public restrooms. Approximately five guest cabins would also be built, which would accommodate between one to four visitors. The final design of the lodge is to be determined at a later date, but the architects believe that a site-specific design is imperative for the success of the lodge to create a sense of community ownership. Despite the amenities available at the Aikow Inn, which also includes a library, kitchen, dining room, and guest laundry facilities, the new lodge would offer a designated space for eco-tourists to enjoy the island and would not necessarily run the risk of being booked by visiting contractors or government officials. An admitted challenge to the success of the proposed lodge is air travel to the island. Currently, PenAir flights to St. George are not as consistent as those to St. Paul and, as mentioned above, cancellations are common. APICDA is currently (2007) exploring options that include chartered flights and/or a ferry service to St. Paul that may improve the ease of travel for visiting tourists.

5.3.5 Subsistence Harvesting

As was the case in the St. Paul community profile, any discussion of subsistence harvesting in St. George must begin with a discussion of fur seal harvesting. As stated above, the fur seal harvest was primarily the reason that the islands of St. Paul and St. George were populated in the first place, and, while the commercial subsistence harvest in St. George ended in 1973, the subsistence harvest is still important to the community. The subsistence fur seal harvest provides a source of food for the community, particularly elders, and the skins of the seals are manipulated into traditional crafts.

Subsistence still plays a significant role in the household economies within the community. St. George residents may harvest up to 300 fur seals each year for subsistence use, but according to local USFWS personnel, in the last few years annual takes have been variable, with a high year being about 250 animals and a low year being about half that number. Halibut, reindeer, marine invertebrates, plants, and berries are also subsistence resources that contribute to the local diet. In the recent past, subsistence halibut fishing had become more difficult than in the more distant past, with some of it taking place 10 miles or more at sea. This trend has changed, however, and subsistence halibut fishing can be done once again relatively close to shore. There is speculation that the trawling and commercial longlining that is permitted close to the community (unlike the situation at St. Paul) may be having a detrimental impact on the local subsistence fishery. Locals also report concerns over an apparent decline in local fur seal and sea lion abundance.

The regulatory background of the northern fur seal harvest is present in the St. Paul community profile, as is a detailed description of the harvesting process. Thus, it will not be recapitulated here. The number of northern fur seals harvested in St. George is substantially less than the harvest in St. Paul, however, with recent harvest amounts generally below 200 individual animals (Table STGE-18).

Northern fur seals are not the only marine mammal harvested in St. George, however. The residents of St. George also harvest Steller sea lions throughout the autumn, winter, and spring months, although recently, spring and autumn are more popular harvesting seasons. Table STGE-19 shows the estimated subsistence take of Steller sea lions in St. George.

According to the ADF&G's Division of Subsistence, which performed their most recent comprehensive subsistence study for St. George in 1994, 100 percent of the homes used at least one natural resource for subsistence use. As expected, the use percentages for fur seals and sea lions were relatively high, at 77.8 and 30.6 percent, respectively. Subsistence resources with a relatively high percentage of use include fish, at 100 percent, which included 75 percent of residents using salmon, and 100 percent of residents using halibut. An estimated 47.2 percent of St. George residents also used reindeer as a subsistence resource. In contrast to St. Paul, approximately 41.7 percent of residents in St. George said they used migratory birds as a subsistence resource, including kittiwakes (38.9), murres (11.1), and cormorants (11.1).

Table STGE-18. Subsistence Harvest Levels for Northern Fur Seals in St. George, 1985-2003

Year	Subsistence Take Range	Actual Harvest
1985	-	329
1986	800-1,800	124
1987	533-1,800	192
1988	600-1,740	113
1989	533-1,600	181
1990	181-1,500	164
1991	181-1,500	281
1992	281-1,500	194
1993	281-1,500	319
1994	281-1,500	161
1995	281-1,500	260
1996	281-1,500	232
1997	300-1,500	227
1998	300-1,500	256
1999	300-1,500	193
2000	300-1,500	121
2001	300-1,500	184
2002	300-1,500	203
2003	300-1,500	132

Source: D. Cormany, personal communication, 2003

Table STGE-19. Estimated Subsistence Harvest Levels for Steller Sea Lions in St. George, 1992-2005

Year	Estimated Harvest
1992	15
1993	4
1994	3
1995	4
1996	4
1997	20
1998	12
1999	NA
2000	12
2001	7
2002	6
2003	9
2004	9
2005	9

Note: Values rounded to the nearest integer.
Source: ADF&G 2006

5.4 LOCAL GOVERNANCE AND REVENUES

Table STGE-20 provides information on municipal revenues for St. George for the years 1999 through 2006. In general, the City can derive revenue from fisheries-related activities in a number of different ways. The most obvious of these is the local fish tax. Local fish taxes (historically derived from crab processing by floating processors), although not shown in the table, were substantial in 1999 before declining five-fold in 2000 and then disappearing from 2001 to 2005, paralleling the "crab crash" and the associated exit of processing from the community. Although this does not show up in Table STGE-20, the City of St. George did receive landing taxes on its community-linked IPQ that was processed in St. Paul for all 3 years since the implementation of BSAI crab rationalization (FY 2006-2008). Under an inter-community agreement, St. Paul has collected a raw fish tax on landings of crab that were processed in St. Paul under St. George's IPQ and then, after retaining a 10 percent administrative fee, transferred those revenues to St. George. These represent the only crab-related fish tax revenues that St. George has received since crab processing left the community in 2000. Effectively, at least for the first 3 years of the program, BSAI crab rationalization restored a level of crab-related municipal revenues that had not been seen in the community in several years immediately prior to rationalization.

The state-shared fish tax tells a somewhat different story with respect to the timing of local revenue declines, but this is a function of the year lag between the sales associated with tax origination with actual receipt of revenue from the state, with the latter determining when revenue appears in city records. The fuel transfer tax ("Service Charges") also shows a sharp decline between 1999 and 2000, and this is also attributed to the pull-out of local processing. Also, the City lost substantial revenues between 1999 and 2000 in enterprise funds closely associated with local processing, including revenue associated with berthing and wharfage, despite the fact that wharfage captures some activity related to the delivery of groceries, machinery, etc., which happens occasionally throughout the year.

The decline in local revenues associated with the loss of local crab processing over the last few years has had a number of negative impacts on the community. Income has dropped in the community, with perhaps the single hardest hit institution being the City of St. George government. According to senior City staff, there are four persons working for the City, and employment is not full-time for all employees. For some, this has the prospect of not only having a negative impact on current income, but also on retirement funds. City-provided services have also been affected. With about a 60 percent drop in water supplied by the city system, and substantial drops in sewer and refuse service, the ratio of industrial to residential demand has dropped sharply along with the level of overall demand. Fuel costs, no longer essentially underwritten by industrial demand, have also risen, and this has had the effect of driving up the cost of producing electricity locally. As a result of these changes, the City has felt compelled to raise the cost of utilities and services. The population of the community, then, is faced with declining income, declining revenues, and increased cost of living. Additionally, here are costs associated with maintaining the road system and recently completed fishery-related infrastructure improvements. At the same time, residents report that there has been some out-migration from the community as some individuals and families have sought better economic opportunities elsewhere, meaning that a smaller population base is bearing the increased costs on St. George.

Table STGE-20. Municipal Revenues, St. George, 1999-2006

Revenue Source	1999	2000	2001	2002	2003	2004	2005	2006
Local Operating Revenues								
Taxes	$0	$0	$0	$14,978	$11,224	$0	$0	$0
License/Permits	$0	$0	$0	$0	$0	$0	$0	$0
Service Charges	$930,052	$59,448	$5,990	$44,523	$20,337	$78,131	$44,429	$70,050
Enterprise	$1,587,368	$389,565	$708,172	$853,400	$576,065	$478,664	$464,960	$673,530
Other Local Revenue	$0	$933,699	$274,777	$49,496	$56,232	$86,425	$33,330	$12,427
Total Local Operating Revenues	$2,517,420	$1,382,712	$988,939	$962,397	$663,858	$643,220	$542,719	$756,007
Outside Operating Revenues								
Federal Operating	$0	$7,591	$0	$0	$0	$0	$0	$0
State Revenue Sharing	$35,305	$27,818	$0	$26,947	$0	$0	$0	$0
State Municipal Assistance	$5,279	$3,266	$0	$0	$0	$0	$0	$0
State Fish Tax Sharing	$10,389	$909	$0	$0	$0	$0	$0	$79,650
Other State Revenue	$0	$0	$0	$0	$0	$0	$0	$0
Other Intergovernmental	$0	$0	$0	$0	$80,490	$0	$0	$0
State/Federal Education Funds	$0	$0	$0	$0	$0	$0	$0	$0
Total Outside Revenues	$50,973	$39,584	$0	$26,947	$80,490	$0	$0	$79,650
Total Operating Revenues	$2,568,393	$1,422,296	$988,939	$989,344	$744,348	$643,220	$542,719	$835,657
Operating Revenue per Capita	$14,846	$8,673	$6,506	$6,730	$4,995	$4,695	$4,239	$6,963
State/Federal Capital Project Revenues	$47,512	$355,208	$878,836	$152,422	$68,612	$55,080	-$6,045	$0
Total All Revenues	$2,615,905	$1,777,504	$1,867,802	$1,141,766	$812,960	$698,300	$536,674	$835,657
Total All Revenues (2006 Constant Dollars)	$3,165,465	$2,080,980	$2,127,395	$1,279,489	$890,721	$745,248	$553,986	$835,657

Source: A. Logan, DCRA, personal communication, 2007, 2008

The municipal revenue shortfall that has accompanied the exit of local crab processing has also meant that the City of St. George has had difficulty meeting the obligations incurred with the harbor development. Reportedly, all of the entities in St. George, including the Tanaq Corporation and the Traditional Council, have assisted the city in one way or another in helping to see the harbor development come to fruition, as it is the common view of the various entities that the economic future of St. George rests with commercial fisheries in one form or another. This support has included short-term financial support, but the City still has incurred the obligations in the long term, and the loss of revenues has been sorely felt. As noted above, the loss of revenue has been accompanied by a loss of services to the community, an increase in costs for some basic needs (such as fuel and utilities), a decrease in employment, and a loss of population, meaning that costs and losses are borne by a smaller base.

CHAPTER 6.0
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APPENDIX A

DETAILED CATCH AND EARNINGS ESTIMATES

APPENDIX A
DETAILED CATCH AND EARNINGS ESTIMATES

Commercial Fisheries Entry Commission (CFEC) annually creates a data report called "Permit and Fishing Activity by Year, State, Census Division, or Alaskan City." As described at the CFEC site on the internet at http://www.cfec.state.ak.us/fishery_statistics/earnings.htm, these reports—commonly referred to as the *Census Area Reports*—show information on the number of permits issued and fished; the number of permit holders; and the number of fishermen, pounds, and estimated gross earnings. The tables shown in this Appendix summarize these reports by permit type for Sand Point (Table A-1), Adak (Table A-2), St. Paul (Table A-3), and St. George (Table A-4) for the years 1995-2005. Fisheries in which no community residents had permits between 1995-2005 are not presented.

While CFEC makes every effort to provide as much detail as possible in the Census Area Reports, many entries for pounds landed and revenues are not released due to confidentiality restrictions. Any permits with fewer than four permit holders are subject to confidentiality. For example, if the community of Sand Point had only three residents who owned Dungeness crab pot gear permits, the CFEC data would not include information for pounds landed and gross revenue. In cases where data were not released, Northern Economics has imputed missing values by using fishery averages. By imputing missing values, reasonably complete estimates of landings and revenue for permit holders in each community in the study can be provided. The general process by which missing information is estimated is by looking at average information from successively more inclusive geographical areas. For example, if catches are confidential at the community level, but not in the community's Census Area (or Borough) level, then the average catch for that permit type in the Census Area (or Borough) is used and is multiplied by the number of active permits in the community to generate an estimate of catch in the community. If catch for that particular permit type is also confidential at the Census Area level, then the average catch of permit from other larger geographic aggregations is made. After all permit types in all communities are assigned an average catch estimate, all of the "estimated" pounds and revenues for each permit type are prorated such that the total (estimated and nonestimated) for each community is equivalent to the CFEC's total catch for that particular community.

Table A-1. Detailed Catch and Earnings Estimates for Sand Point Permit Holders by Permit Type, 1995-2005

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Crab Fisheries											
Dungeness Crab using pot gear, vessel under 60', in the Alaska Peninsula Area											
Permits Held	3	3	2	2	1	-	-	4	6	3	2
Permits Fished	-	1	-	-	-	-	-	4	3	2	2
Pounds	-	-	-	-	-	-	-	162,218	139,475	85,644	48,162
Revenue	-	-	-	-	-	-	-	218,994	202,238	118,104	60,203
Hair Crab using pot gear, vessel under 60', in the Statewide Area											
Permits Held	-	3	-	-	-	-	-	-	-	-	-
Permits Fished	-	2	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Hair Crab using pot gear, vessel under 60', in the Bering Sea											
Permits Held	-	-	1	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel under 60', in the Alaska Peninsula Area											
Permits Held	1	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel under 60', in the Bering Sea Area											
Permits Held	-	10	5	4	1	-	-	-	-	-	-
Permits Fished	-	6	2	2	-	-	-	-	-	-	-
Pounds	-	41,810	13,864	-	-	-	-	-	-	-	-
Revenue	-	149,643	44,112	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel under 60', in the Bristol Bay Area											
Permits Held	-	-	1	1	1	1	1	1	1	1	-
Permits Fished	-	-	1	1	1	1	1	1	1	1	-
Pounds	-	-	-	-	-	10,615	-	-	-	32,706	-
Revenue	-	-	-	-	-	51,044	-	-	-	156,567	-
King Crab using pot gear, vessel under 60', in the Norton Sound Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	1	-	-	-	-	-	-	-	-	-
Pounds	-	6,161	-	-	-	-	-	-	-	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	-	13,986	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel 60' or over, in the Alaska Peninsula Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel 60' or over, in the Bering Sea Area											
Permits Held	14	3	3	3	-	-	-	-	-	-	-
Permits Fished	12	2	2	3	-	-	-	-	-	-	-
Pounds	140,868	31,952	45,844	51,274	-	-	-	-	-	-	-
Revenue	496,771	85,324	118,267	106,736	-	-	-	-	-	-	-
King Crab using pot gear, vessel 60' or over, in the Bristol bay Area											
Permits Held	-	1	2	2	2	1	2	1	2	1	-
Permits Fished	-	1	1	2	1	1	1	-	2	1	-
Pounds	-	28,192	21,362	65,394	42,208	25,408	15,510	-	61,814	39,376	-
Revenue	-	113,555	69,748	172,117	264,473	120,583	74,078	-	313,990	185,051	-
Tanner Crab using pot gear, vessel under 60', in the Kodiak Area											
Permits Held	-	-	-	-	-	-	-	1	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab using pot gear, vessel under 60', in the Chignik Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	8
Permits Fished	-	-	-	-	-	-	-	-	-	-	8
Pounds	-	-	-	-	-	-	-	-	-	-	169,812
Revenue	-	-	-	-	-	-	-	-	-	-	286,672
Tanner Crab using pot gear, vessel under 60', in the Alaska Peninsula Area											
Permits Held	1	1	-	-	-	-	34	-	-	-	27
Permits Fished	-	-	-	-	-	-	28	-	-	-	20
Pounds	-	-	-	-	-	-	100,315	-	-	-	81,383
Revenue	-	-	-	-	-	-	150,356	-	-	-	137,518
Tanner Crab using pot gear, vessel under 60', in the Dutch Harbor Area											
Permits Held	-	-	-	-	-	-	-	-	-	1	2
Permits Fished	-	-	-	-	-	-	-	-	-	1	1
Pounds	-	-	-	-	-	-	-	-	-	7,835	2,037

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	-	-	-	-	-	-	-	-	-	22,855	4,214
Tanner Crab using pot gear, vessel 60' or over, in the Alaska Peninsula											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab using pot gear, vessel 60' or over, in the Bering Sea Area											
Permits Held	1	2	2	1	2	2	1	1	1	1	-
Permits Fished	-	1	1	1	2	2	-	1	1	1	-
Pounds	-	100,990	396,834	744,090	899,057	166,923	-	114,455	136,629	97,113	-
Revenue	-	141,735	312,705	420,411	883,773	308,266	-	157,224	252,062	199,081	-
All Crab Fisheries using all gears combined in All Areas Combined											
Permits Held	22	25	16	13	7	4	38	8	10	7	39
Permits Fished	12	14	7	9	4	4	30	6	7	6	31
Pounds	140,868	209,105	477,904	860,758	941,265	202,945	115,825	276,673	337,918	262,674	301,393
Revenue	496,771	504,243	544,832	699,264	1,148,247	479,893	224,434	376,218	768,290	681,658	488,607
Halibut Fisheries											
Halibut using hand troll in the Statewide Area											
Permits Held	1	1	1	1	1	1	1	1	1	1	1
Permits Fished	-	1	-	-	1	1	1	-	-	-	-
Pounds	-	2,238	-	-	454	1,520	1,814	-	-	-	-
Revenue	-	4,621	-	-	903	3,142	3,347	-	-	-	-
Halibut using longline, vessel under 60', in the Statewide Area											
Permits Held	7	21	23	27	27	24	26	37	37	37	35
Permits Fished	1	12	19	16	20	15	20	32	35	30	27
Pounds	1,322	69,511	204,949	215,647	315,935	420,921	527,108	707,571	741,532	642,540	486,266
Revenue	2,474	137,409	402,391	222,361	573,462	1,091,027	1,046,288	1,430,083	2,064,810	1,810,743	1,420,563
Halibut using mechanical jig in the Statewide Area											
Permits Held	-	-	2	4	2	3	2	1	1	1	1
Permits Fished	-	-	-	-	-	1	-	-	-	-	-
Pounds	-	-	-	-	-	890	-	-	-	-	-
Revenue	-	-	-	-	-	1,846	-	-	-	-	-
Halibut using longline, vessel 60' or over, in the Statewide Area											
Permits Held	67	46	34	28	27	24	18	10	7	4	3
Permits Fished	39	27	24	19	22	21	15	8	3	2	2

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Pounds	185,230	123,885	330,168	276,751	479,832	483,022	262,222	158,644	80,056	59,609	43,944
Revenue	344,331	246,779	644,285	247,074	837,873	1,228,196	517,343	319,993	220,994	170,170	127,688
All Halibut Fisheries using all gears combined in All Areas Combined											
Permits Held	75	68	60	60	57	52	47	49	46	43	40
Permits Fished	40	40	43	35	43	38	36	40	38	32	29
Pounds	186,552	195,634	535,117	492,398	796,221	906,352	791,144	866,215	821,588	702,149	530,210
Revenue	346,805	388,809	1,046,676	469,435	1,412,238	2,324,211	1,566,978	1,750,076	2,285,804	1,980,913	1,548,251
Herring Fisheries											
Herring Roe using purse seine in the Southeast Area											
Permits Held	1	1	1	1	1	-	-	-	-	-	-
Permits Fished	1	1	1	1	1	-	-	-	-	-	-
Pounds	91,179	233,929	462,403	268,097	380,919	-	-	-	-	-	-
Revenue	61,637	207,729	98,029	33,244	103,610	-	-	-	-	-	-
Herring Roe & Food/Bait using Purse Seine in the Cook Inlet Area											
Permits Held	1	1	1	1	1	1	1	1	1	1	1
Permits Fished	1	1	-	-	-	-	-	-	-	-	-
Pounds	107,547	54,948	-	-	-	-	-	-	-	-	-
Revenue	66,571	54,564	-	-	-	-	-	-	-	-	-
Herring Roe using purse seine in the Kodiak Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Herring Roe using purse seine in the Chignik Area											
Permits Held	-	1	1	1	1	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Herring Roe using purse seine in the Alaska Peninsula Area											
Permits Held	13	10	9	6	4	3	1	1	1	1	1
Permits Fished	3	1	-	-	-	-	-	-	-	-	-
Pounds	57,797	106,559	-	-	-	-	-	-	-	-	-
Revenue	11,906	48,804	-	-	-	-	-	-	-	-	-
Herring Roe using purse seine in the Bristol Bay Area											
Permits Held	7	9	8	5	4	3	1	1	1	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Fished	4	3	5	1	-	-	-	-	-	-	-
Pounds	237,020	310,560	573,038	127,204	-	-	-	-	-	-	-
Revenue	98,363	109,318	63,607	19,717	-	-	-	-	-	-	-
Herring Roe using gillnets in the Alaska Peninsula Area											
Permits Held	5	3	3	2	2	2	1	2	2	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Herring Roe using gillnets in the Security Cove Area											
Permits Held	-	2	2	-	-	-	-	-	-	-	-
Permits Fished	-	1	1	-	-	-	-	-	-	-	-
Pounds	-	11,065	6,664	-	-	-	-	-	-	-	-
Revenue	-	4,405	1,053	-	-	-	-	-	-	-	-
Herring Roe using gillnets in the Bristol Bay Area											
Permits Held	-	2	2	-	-	-	-	-	-	-	-
Permits Fished	-	1	1	-	-	-	-	-	-	-	-
Pounds	-	17,236	21,610	-	-	-	-	-	-	-	-
Revenue	-	6,929	2,961	-	-	-	-	-	-	-	-
Herring Food/Bait using purse seine in the Alaska Peninsula Area											
Permits Held	9	10	10	9	9	9	10	7	9	8	5
Permits Fished	4	8	10	8	7	6	5	4	2	1	-
Pounds	504,548	1,075,857	977,103	1,009,902	1,008,498	694,069	1,221,603	2,023,287	919,529	-	-
Revenue	78,709	175,364	186,627	211,070	246,074	138,813	208,894	331,819	114,022	-	-
Herring Food/Bait using gillnets in the Alaska Peninsula Area											
Permits Held	-	-	-	-	-	-	-	1	2	2	-
Permits Fished	-	-	-	-	-	-	-	-	1	-	-
Pounds	-	-	-	-	-	-	-	-	7,150	-	-
Revenue	-	-	-	-	-	-	-	-	1,573	-	-
All Herring Fisheries using all gears combined in All Areas Combined											
Permits Held	37	39	37	25	22	19	14	13	16	13	8
Permits Fished	13	16	18	10	8	6	5	4	3	1	-
Pounds	998,090	1,810,155	2,040,817	1,405,203	1,389,417	694,069	1,221,603	2,023,287	926,679	-	-
Revenue	317,186	607,113	352,276	264,031	349,684	138,813	208,894	331,819	115,595	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Groundfish Fisheries											
Ling Cod using dinglebar troll in the Statewide Area											
Permits Held	-	-	-	-	-	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Ling Cod using mechanical jig in the Statewide Area											
Permits Held	-	-	-	-	-	1	-	-	1	1	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using purse seine in the Statewide Area											
Permits Held	-	5	1	-	1	-	-	-	-	-	-
Permits Fished	-	1	-	-	-	-	-	-	-	-	-
Pounds	-	31,662	-	-	-	-	-	-	-	-	-
Revenue	-	1,626	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using set gillnets in the Statewide Area											
Permits Held	-	4	-	-	-	-	-	-	-	-	-
Permits Fished	-	3	-	-	-	-	-	-	-	-	-
Pounds	-	2,684	-	-	-	-	-	-	-	-	-
Revenue	-	948	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using hand troll in the Statewide Area											
Permits Held	-	4	23	18	17	16	6	4	1	-	-
Permits Fished	-	3	9	5	2	1	-	-	-	-	-
Pounds	-	4,473	44,521	26,867	7,807	1,453	-	-	-	-	-
Revenue	-	1,594	7,857	5,622	2,561	633	-	-	-	-	-
Miscellaneous Saltwater Finfish using longline, vessel under 60', in the Statewide Area											
Permits Held	2	6	4	3	3	3	8	8	3	2	1
Permits Fished	-	-	1	1	1	-	2	-	1	-	-
Pounds	-	-	15,368	8,854	94,310	-	7,959	-	89,441	-	-
Revenue	-	-	3,705	1,754	31,429	-	1,964	-	27,282	-	-
Miscellaneous Saltwater Finfish using otter trawl in the Statewide Area											
Permits Held	33	32	32	32	31	31	24	26	20	15	17
Permits Fished	27	25	25	27	26	23	19	18	16	11	13
Pounds	20,088,283	34,380,398	38,530,753	30,437,547	33,799,204	31,353,694	39,883,693	25,267,754	18,236,374	20,166,734	31,374,645

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	2,660,927	4,300,346	5,267,413	3,022,553	4,907,587	5,938,839	5,165,263	3,284,631	2,058,703	2,250,174	3,959,749
Miscellaneous Saltwater Finfish using pot gear, vessel under 60', in the Statewide Area											
Permits Held	8	11	35	47	45	42	38	33	35	34	30
Permits Fished	2	3	17	32	28	31	19	25	29	29	21
Pounds	135,915	248,522	1,654,330	3,706,767	6,026,990	6,065,210	4,051,176	6,958,057	10,520,563	8,251,158	4,855,427
Revenue	26,269	44,853	299,313	601,302	1,548,923	1,829,219	967,549	1,464,461	2,749,012	1,929,485	1,231,799
Miscellaneous Saltwater Finfish using beam trawl in the Statewide Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using mechanical jig in the Statewide Area											
Permits Held	32	38	49	43	46	47	51	57	58	53	48
Permits Fished	10	8	22	13	7	13	24	29	40	31	26
Pounds	154,318	101,062	204,235	242,840	136,820	181,828	635,749	1,007,081	1,706,996	646,565	911,089
Revenue	41,637	23,912	39,881	40,429	39,951	49,549	159,121	218,911	458,018	150,470	232,396
Miscellaneous Saltwater Finfish using longline, vessel over 60', in the Statewide Area											
Permits Held	23	18	12	6	5	4	4	4	3	3	3
Permits Fished	3	2	-	-	-	-	-	-	-	-	-
Pounds	42,569	89,748	-	-	-	-	-	-	-	-	-
Revenue	8,073	36,362	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using pot gear, vessel 60' or over, in the Statewide Area											
Permits Held	23	22	14	9	6	5	3	2	3	2	-
Permits Fished	14	11	4	4	3	2	1	1	1	2	-
Pounds	885,309	4,272,151	639,252	928,484	1,087,686	587,094	296,088	503,982	550,435	1,483,128	-
Revenue	167,994	1,063,546	114,637	148,575	272,157	176,586	72,356	104,960	145,148	369,066	-
Miscellaneous Saltwater Finfish using other gear in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Demersal Shelf Rockfish using longline, vessel 60' or over, in the Southeast Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Groundfish Fisheries using all gears combined in All Areas Combined											
Permits Held	122	141	170	158	154	150	134	134	124	110	99
Permits Fished	56	56	78	82	67	70	65	73	87	73	60
Pounds	21,306,394	39,130,699	41,088,459	35,351,359	41,152,818	38,189,279	44,874,665	33,736,874	31,103,809	30,547,585	37,141,161
Revenue	2,904,900	5,473,187	5,732,806	3,820,234	6,802,608	7,994,826	6,366,252	5,072,963	5,438,163	4,699,195	5,423,944
Other Shellfish Fisheries											
Octopi/Squid using pot gear, vessel under 60', in the Statewide Area											
Permits Held	4	4	8	8	6	1	1	1	-	1	-
Permits Fished	-	-	1	-	-	-	-	-	-	1	-
Pounds	-	-	1,171	-	-	-	-	-	-	4,256	-
Revenue	-	-	661	-	-	-	-	-	-	1,705	-
Octopi/Squid using pot gear, vessel 60' or over, in the Statewide Area											
Permits Held	5	2	-	-	1	-	-	-	-	-	-
Permits Fished	1	-	-	-	-	-	-	-	-	-	-
Pounds	3,187	-	-	-	-	-	-	-	-	-	-
Revenue	1,267	-	-	-	-	-	-	-	-	-	-
Shrimp using otter trawl in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Shrimp using otter trawl in the Westward Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Shrimp using pot gear, vessel 50' or less, in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sea Cucumber using diving gear in the Statewide Area											
Permits Held	-	-	-	-	-	-	1	1	1	1	-
Permits Fished	-	-	-	-	-	-	1	1	1	1	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Pounds	-	-	-	-	-	-	12,017	9,551	17,586	15,603	-
Revenue	-	-	-	-	-	-	16,364	11,939	24,269	33,859	-
Sea Urchin using diving gear in the Statewide Area											
Permits Held	2	-	-	-	-	-	-	-	-	-	-
Permits Fished	1	-	-	-	-	-	-	-	-	-	-
Pounds	991	-	-	-	-	-	-	-	-	-	-
Revenue	1,286	-	-	-	-	-	-	-	-	-	-
Sea Urchin using diving gear in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Other Shellfish Fisheries using all gears combined in All Areas Combined											
Permits Held	13	7	8	8	7	1	2	2	1	2	-
Permits Fished	2	-	1	-	-	-	1	1	1	2	-
Pounds	4,178	-	1,171	-	-	-	12,017	9,551	17,586	19,859	-
Revenue	2,553	-	661	-	-	-	16,364	11,939	24,269	35,563	-
Sablefish Fisheries											
Sablefish using longline, vessel under 60', in the Statewide Area											
Permits Held	-	2	1	1	1	-	1	1	-	1	-
Permits Fished	-	1	1	1	-	-	1	-	-	-	-
Pounds	-	24,595	6,528	8,366	-	-	15,371	-	-	-	-
Revenue	-	49,461	14,063	11,652	-	-	27,678	-	-	-	-
Sablefish using otter trawl in the Statewide Area											
Permits Held	1	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sablefish pot gear, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	1	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sablefish using mechanical jig in the Statewide Area											
Permits Held	-	-	-	-	-	1	1	1	4	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sablefish using longline, vessel 60' or over, in the Statewide Area											
Permits Held	1	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Sablefish Fisheries using all gears combined in All Areas Combined											
Permits Held	2	4	1	1	1	1	2	3	4	1	-
Permits Fished	-	1	1	1	-	-	1	-	-	-	-
Pounds	-	24,595	6,528	8,366	-	-	15,371	-	-	-	-
Revenue	-	49,461	14,063	11,652	-	-	27,678	-	-	-	-
Salmon Fisheries											
Salmon using purse seine in the Southeast Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	2	1	-	-	-
Pounds	-	-	-	-	-	-	1,575,339	527,995	-	-	-
Revenue	-	-	-	-	-	-	322,005	62,640	-	-	-
Salmon using purse seine in the Kodiak Area											
Permits Held	1	1	-	-	-	-	-	-	-	-	-
Permits Fished	1	1	-	-	-	-	-	-	-	-	-
Pounds	473,062	139,294	-	-	-	-	-	-	-	-	-
Revenue	128,578	79,531	-	-	-	-	-	-	-	-	-
Salmon using purse seine in the Alaska Peninsula Area											
Permits Held	48	46	46	46	46	45	47	47	43	43	38
Permits Fished	47	41	37	40	37	35	36	21	20	18	20
Pounds	32,789,234	7,538,785	5,821,499	15,772,964	19,662,835	9,568,110	10,873,232	7,634,001	6,485,108	15,632,263	16,697,423
Revenue	9,203,340	2,213,215	2,340,952	4,241,863	5,918,159	3,132,942	1,495,059	1,244,281	1,045,627	3,077,434	3,571,934
Salmon using drift gillnet in the Southeast Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Salmon using drift gillnet in the Prince William Sound Area											
Permits Held	1	1	1	1	1	1	1	1	1	1	1
Permits Fished	1	1	1	1	1	1	1	1	1	1	1
Pounds	31,528	36,262	64,235	25,526	25,119	37,674	40,212	60,430	37,810	23,454	17,923
Revenue	40,271	40,433	48,609	28,436	41,689	31,807	33,646	30,764	35,902	30,436	30,378
Salmon using drift gillnet in the Alaska Peninsula Area											
Permits Held	11	11	10	10	9	8	8	8	9	9	7
Permits Fished	12	11	10	8	9	8	5	4	5	8	6
Pounds	1,295,633	602,905	582,602	464,938	435,819	486,454	164,793	168,989	187,119	534,187	766,500
Revenue	1,280,942	462,514	488,025	418,194	429,978	361,369	72,230	73,987	91,045	277,357	469,586
Salmon using drift gillnet in the Bristol Bay Area											
Permits Held	1	1	1	-	-	-	-	-	1	-	-
Permits Fished	1	1	1	1	1	1	1	1	1	-	-
Pounds	87,932	83,191	28,864	26,311	50,854	50,278	49,850	49,873	36,054	-	-
Revenue	69,208	65,960	26,201	29,721	42,131	32,441	19,913	23,759	17,750	-	-
Salmon using set gillnet in the Alaska Peninsula Area											
Permits Held	44	47	44	47	45	43	43	46	42	41	41
Permits Fished	41	45	42	47	42	40	41	38	34	34	34
Pounds	4,681,566	3,690,646	3,033,191	4,237,517	4,869,383	3,550,567	3,158,993	2,510,057	3,570,932	3,675,057	5,468,303
Revenue	2,960,617	2,364,346	2,620,861	3,303,939	4,297,416	2,297,798	1,015,656	850,628	1,300,539	1,602,265	2,824,649
Salmon using set gillnets in the Bristol Bay Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Salmon using gillnets in the Lower Yukon Area											
Permits Held	2	2	1	1	1	2	2	2	2	-	-
Permits Fished	-	1	1	-	-	-	-	-	-	-	-
Pounds	-	4,375	3,469	-	-	-	-	-	-	-	-
Revenue	-	7,040	7,008	-	-	-	-	-	-	-	-
Salmon using gillnets in the Norton Sound Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-

Table A-1. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Salmon using power troll in the Statewide Area											
Permits Held	1	1	1	1	1	1	1	1	1	-	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Sablefish Fisheries using all gears combined in All Areas Combined											
Permits Held	109	111	104	106	103	100	102	105	99	94	88
Permits Fished	103	101	92	97	90	85	86	66	61	61	61
Pounds	39,358,955	12,095,458	9,533,860	20,527,256	25,044,010	13,693,083	15,862,419	10,951,345	10,317,024	19,864,961	22,950,149
Revenue	13,682,956	5,233,039	5,531,656	8,022,153	10,729,373	5,856,357	2,958,509	2,286,060	2,490,863	4,987,492	6,896,547
All Fisheries using all gears combined in All Areas Combined											
Permits Held	380	395	396	371	351	327	339	314	300	270	274
Permits Fished	226	228	240	234	212	203	224	190	197	175	181
Pounds	61,995,037	53,465,646	53,683,857	58,645,341	69,323,730	53,685,729	62,893,044	47,863,944	43,524,603	51,397,227	60,922,913
Revenue	17,751,171	12,255,852	13,222,969	13,286,769	20,442,149	16,794,099	11,369,108	9,829,076	11,122,983	12,384,820	14,357,349

Note: If fewer than 4 permits were fished in a given year then the pounds and revenue numbers shown in the table are estimates produced by Northern Economics, Inc. Otherwise, the pounds and revenue numbers reflect CFEC data.
Source: CFEC 2007a; supplemented by Northern Economics, Inc.

Table A-2. Detailed Catch and Earnings Estimates for Adak Permit Holders by Permit Type, 1995-2005

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Halibut Fisheries											
Halibut using longline, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	2	-	1	1
Permits Fished	-	-	-	-	-	-	-	1	-	1	1
Pounds	-	-	-	-	-	-	-	21,919	-	4,292	7,189
Revenue	-	-	-	-	-	-	-	38,299	-	10,845	20,121
All Halibut Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	-	-	2	-	1	1
Permits Fished	-	-	-	-	-	-	-	1	-	1	1
Pounds	-	-	-	-	-	-	-	21,919	-	4,292	7,189
Revenue	-	-	-	-	-	-	-	38,299	-	10,845	20,121
Herring Fisheries											
Herring Food/Bait using gillnets in the Alaska Peninsula Area											
Permits Held	-	-	-	-	-	-	-	-	-	3	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Herring Spawn on kelp using pound in the Southern Southeast Area											
Permits Held	-	-	-	-	-	-	1	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Herring Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	-	1	-	-	3	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Groundfish Fisheries											
Miscellaneous Saltwater Finfish using hand troll in the Statewide Area											
Permits Held	-	-	-	-	-	1	1	1	1	1	-
Permits Fished	-	-	-	-	-	1	1	1	-	-	-
Pounds	-	-	-	-	-	1,453	10,814	7,906	-	-	-
Revenue	-	-	-	-	-	633	3,252	2,240	-	-	-
Miscellaneous Saltwater Finfish using longline, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	-	2	2	1	1	3

Table A-2. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Permits Fished	-	-	-	-	-	-	-	1	-	-	2
Pounds	-	-	-	-	-	-	-	38,503	-	-	346,907
Revenue	-	-	-	-	-	-	-	7,904	-	-	111,057
Miscellaneous Saltwater Finfish using mechanical jig in the Statewide Area											
Permits Held	-	-	-	-	1	1	-	2	1	1	2
Permits Fished	-	-	-	-	1	1	-	-	-	-	1
Pounds	-	-	-	-	13,791	14,674	-	-	-	-	12,675
Revenue	-	-	-	-	4,763	4,638	-	-	-	-	4,124
Demersal Shelf Rockfish using longline, vessel under 60', in the Southeast Area											
Permits Held	-	-	-	-	-	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	1	-	-	-	-	-
Pounds	-	-	-	-	-	11,181	-	-	-	-	-
Revenue	-	-	-	-	-	12402	-	-	-	-	-
Demersal Shelf Rockfish using mechanical jog in the Southeast Area											
Permits Held	-	-	-	-	-	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Groundfish Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	1	4	3	5	3	3	5
Permits Fished	-	-	-	-	1	3	1	2	-	-	3
Pounds	-	-	-	-	13,791	27,307	10,814	46,408	-	-	359,582
Revenue	-	-	-	-	4,763	17,673	3,252	10,144	-	-	115,181
Sablefish Fisheries											
Sablefish using longline, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	1	-	-	1
Permits Fished	-	-	-	-	-	-	-	1	-	-	1
Pounds	-	-	-	-	-	-	-	9,792	-	-	11,812
Revenue	-	-	-	-	-	-	-	18,228	-	-	23,543
All Sablefish Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	-	-	1	-	-	1
Permits Fished	-	-	-	-	-	-	-	1	-	-	1
Pounds	-	-	-	-	-	-	-	9,792	-	-	11,812
Revenue	-	-	-	-	-	-	-	18,228	-	-	23,543

Table A-2. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Salmon Fisheries											
Salmon using purse seine in the Alaska Peninsula Area											
Permits Held	-	-	-	-	-	-	-	-	-	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Salmon using power troll in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	1	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Salmon Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	-	-	-	1	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Fisheries Using All Gears in All Areas											
All Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	1	4	4	8	4	8	9
Permits Fished	-	-	-	-	1	3	1	4	-	1	5
Pounds	-	-	-	-	13,791	27,307	10,814	78,119	-	4,292	378,583
Revenue	-	-	-	-	4,763	17,673	3,252	66,671	-	10,845	158,844

Note: If fewer than 4 permits were fished in a given year then the pounds and revenue numbers shown in the table are estimates produced by Northern Economics, Inc. Otherwise, the pounds and revenue numbers reflect CFEC data.
Source: CFEC 2007a; supplemented by Northern Economics, Inc.

Table A-3. Detailed Catch and Earnings Estimates for St. Paul Permit Holders by Permit Type, 1995-2005

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Crab Fisheries											
Dungeness Crab using pot gear, vessel 60' or over, in the Alaska Peninsula Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Hair Crab using pot gear, vessel under 60', in the Statewide Area											
Permits Held	2	2	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Hair Crab using pot gear, vessel under 60', in the Bering Sea Area											
Permits Held	-	-	2	1	1	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Hair Crab using pot gear, vessel 60' or over in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel under 60', in the Bering Sea Area											
Permits Held	-	-	1	2	-	-	-	-	-	-	-
Permits Fished	-	-	1	-	-	-	-	-	-	-	-
Pounds	-	-	6,932	-	-	-	-	-	-	-	-
Revenue	-	-	22,056	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel 60' or over, in the Bering Sea Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel over 50', in the Adak Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-

Table A-3. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	-	-	-	-	-	-	-	-	-	-	-
King Crab using pot gear, vessel 60' or over, in the Norton Sound Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab using pot gear, vessel under 60', in the Bering Sea Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	1	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Tanner Crab using pot gear, vessel 60' or over, in the Adak Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Crab Fisheries using all gears combined in All Areas Combined											
Permits Held	4	3	3	3	1	-	-	-	-	-	-
Permits Fished	-	1	1	-	-	-	-	-	-	-	-
Pounds	-	-	6,932	-	-	-	-	-	-	-	-
Revenue	-	-	22,056	-	-	-	-	-	-	-	-
Halibut Fisheries											
Halibut using hand troll in the Statewide Area											
Permits Held	7	7	6	7	7	7	7	4	3	2	1
Permits Fished	3	2	2	4	3	2	1	1	-	-	-
Pounds	15,251	10,045	7,717	2,600	12,057	3,039	1,814	927	-	-	-
Revenue	24,251	16,106	12,140	2,161	17,620	6,284	3,347	1,787	-	-	-
Halibut using longline, vessel under 60', in the Statewide Area											
Permits Held	22	27	26	25	29	27	28	28	25	20	20
Permits Fished	17	24	22	21	23	22	24	23	21	16	17
Pounds	360,017	415,107	667,901	656,913	982,580	878,276	967,495	656,610	434,744	435,264	467,478
Revenue	635,926	809,874	1,221,225	545,895	1,211,863	1,567,834	1,688,090	839,148	808,333	1,150,403	1,075,199
Halibut using mechanical jig in the Statewide Area											
Permits Held	1	1	1	1	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-

Table A-3. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Halibut using longline, vessel 60' or over, in the Statewide Area											
Permits Held	2	1	1	1	1	1	1	-	-	-	-
Permits Fished	2	1	1	1	1	1	1	-	-	-	-
Pounds	33,813	26,145	38,298	74,763	72,343	75,814	86,967	-	-	-	-
Revenue	59,809	49,041	74,508	75,480	116,853	144,010	147,662	-	-	-	-
All Halibut Fisheries using all gears combined in All Areas Combined											
Permits Held	32	36	34	34	37	35	36	32	28	22	21
Permits Fished	22	27	25	26	27	25	26	24	21	16	17
Pounds	409,081	451,296	713,916	734,276	1,066,980	957,129	1,056,277	657,537	434,744	435,264	467,478
Revenue	719,985	875,021	1,307,873	623,536	1,346,335	1,718,127	1,839,099	840,935	808,333	1,150,403	1,075,199
Groundfish Fisheries											
Miscellaneous Saltwater Finfish using longline, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	2	2	-	-	-	-
Permits Fished	-	-	-	-	-	2	-	-	-	-	-
Pounds	-	-	-	-	-	69,949	-	-	-	-	-
Revenue	-	-	-	-	-	23,397	-	-	-	-	-
Miscellaneous Saltwater Finfish using pot gear, vessel under 60', in the Statewide Area											
Permits Held	-	1	-	-	-	3	1	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Groundfish Fisheries using all gears combined in All Areas Combined											
Permits Held	-	1	-	-	-	5	3	-	-	-	-
Permits Fished	-	-	-	-	-	2	-	-	-	-	-
Pounds	-	-	-	-	-	69,949	-	-	-	-	-
Revenue	-	-	-	-	-	23,397	-	-	-	-	-
Other Shellfish Fisheries											
Snails using pot gear, vessel under 60', in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-

Table A-3. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Snails using pot gear, vessel 60' or over, in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Octopi/Squid using pot gear, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Octopi/Squid using pot gear, vessel 60' or over, in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sea Urchin using the Dive/Hand pick in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Other Shellfish Fisheries using all gears combined in All Areas Combined											
Permits Held	1	-	-	-	-	1	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Sablefish Fisheries											
Sablefish using longline, vessel under 60', in the Statewide Area											
Permits Held	-	-	-	-	-	1	1	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Sablefish Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	1	1	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-

Table A-3. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Revenue	-	-	-	-	-	-	-	-	-	-	-
Salmon Fisheries											
Salmon using set gillnet in the Atka/Amalis Islands Area											
Permits Held	1	1	1	1	1	1	1	1	1	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Salmon using gillnets in the Lower Yukon Area											
Permits Held	-	1	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	1	-	-	-	-	-	-	-	-
Pounds	-	-	3,469	-	-	-	-	-	-	-	-
Revenue	-	-	7,008	-	-	-	-	-	-	-	-
All Salmon Fisheries using all gears combined in All Areas Combined											
Permits Held	1	2	1	1	1	1	1	1	1	1	1
Permits Fished	-	-	1	-	-	-	-	-	-	-	-
Pounds	-	-	3,469	-	-	-	-	-	-	-	-
Revenue	-	-	7,008	-	-	-	-	-	-	-	-
All Fisheries using all gears combined in All Areas Combined											
Permits Held	38	42	38	38	39	43	41	33	29	23	22
Permits Fished	22	28	27	26	27	27	26	24	21	16	17
Pounds	409,081	451,296	724,317	734,276	1,066,980	1,027,079	1,056,277	657,537	434,744	435,264	467,478
Revenue	719,985	875,021	1,336,937	623,536	1,346,335	1,741,525	1,839,099	840,935	808,333	1,150,403	1,075,199

Note: If fewer than 4 permits were fished in a given year then the pounds and revenue numbers shown in the table are estimates produced by Northern Economics, Inc. Otherwise, the pounds and revenue numbers reflect CFEC data.
Source: CFEC 2007a; supplemented by Northern Economics, Inc.

Table A-4. Detailed Catch and Earnings Estimates for St. George Permit Holders by Permit Type, 1995-2005

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Halibut Fisheries											
Halibut using hand troll in the Statewide Area											
Permits Held	10	6	5	4	4	2	2	2	1	-	-
Permits Fished	4	1	2	3	-	1	-	-	-	-	-
Pounds	8,369	5,022	7,717	11,926	-	1,520	-	-	-	-	-
Revenue	14,696	8,053	12,140	10,955	-	3,142	-	-	-	-	-
Halibut using longline, vessel under 60', in the Statewide Area											
Permits Held	9	8	11	11	10	9	11	13	8	8	6
Permits Fished	5	7	10	10	9	7	9	10	5	6	2
Pounds	34,400	27,360	74,989	68,755	99,078	110,459	170,346	219,187	27,475	25,752	14,377
Revenue	60,750	53,524	137,005	57,541	123,634	290,949	277,677	382,995	42,544	65,071	40,241
Halibut using mechanical jig in the Statewide Area											
Permits Held	4	4	4	4	4	3	2	2	-	-	-
Permits Fished	1	2	2	3	1	1	-	-	-	-	-
Pounds	779	4,483	4,417	7,143	6,170	5,783	-	-	-	-	-
Revenue	1,512	8,656	8,350	6,387	10,256	11,321	-	-	-	-	-
All Halibut Fisheries using all gears combined in All Areas Combined											
Permits Held	23	18	20	19	18	14	15	17	9	8	6
Permits Fished	10	10	14	16	10	9	9	10	5	6	2
Pounds	43,548	36,866	87,122	87,824	105,248	117,761	170,346	219,187	27,475	25,752	14,377
Revenue	76,958	70,232	157,496	74,883	133,890	305,412	277,677	382,995	42,544	65,071	40,241
Groundfish Fisheries											
Miscellaneous Saltwater Finfish using hand troll in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Miscellaneous Saltwater Finfish using longline, vessel under 60', in the Statewide Area											
Permits Held	1	-	-	-	-	-	-	-	1	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Groundfish Fisheries using all gears combined in All Areas Combined											
Permits Held	1	-	-	-	-	-	-	-	1	1	1
Permits Fished	-	-	-	-	-	-	-	-	-	-	-

Table A-4. (continued)

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish Fisheries											
Sea Urchin using Dive/Hand pick in the Statewide Area											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Other Shellfish Fisheries using all gears combined in All Areas Combined											
Permits Held	-	-	-	-	-	-	-	-	-	-	-
Permits Fished	-	-	-	-	-	-	-	-	-	-	-
Pounds	-	-	-	-	-	-	-	-	-	-	-
Revenue	-	-	-	-	-	-	-	-	-	-	-
All Fisheries using all gears combined in All Areas Combined											
Permits Held	24	18	20	19	18	14	15	17	10	9	7
Permits Fished	10	10	14	16	10	9	9	10	5	6	2
Pounds	43,548	36,866	87,122	87,824	105,248	117,761	170,346	219,187	27,475	25,752	14,377
Revenue	76,958	70,232	157,496	74,883	133,890	305,412	277,677	382,995	42,544	65,071	40,241

Note: If fewer than 4 permits were fished in a given year then the pounds and revenue numbers shown in the table are estimates produced by Northern Economics, Inc. Otherwise, the pounds and revenue numbers reflect CFEC data.
Source: CFEC 2007a; supplemented by Northern Economics, Inc.

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APPENDIX B

ALEUTIANS EAST BOROUGH
FISHERY-RELATED REVENUE

APPENDIX B
ALEUTIANS EAST BOROUGH
FISHERY-RELATED REVENUE

Nowhere is the importance of a borough structure in relation to local fisheries dependency more obvious than in the Aleutians East Borough (AEB), where Sand Point is one of the primary drivers of the fisheries-based portion of the borough economy (along with Akutan and King Cove). While local (community) revenues are discussed in the individual community profiles, the following is a brief description of the interrelationships of revenues within the AEB structure, illustrating in greater detail the dependency on the fisheries present in Sand Point.

- According to the AEB Administrator (Juettner, personal communication, 2008[1]), the AEB will receive a total of $1.8 million as its share of the Fishery Business Tax (FBT) for the FY 2007 fishery from all species including groundfish, crab, salmon, and other fisheries processed in the AEB. The State of Alaska shares the FBT (calculated generally as 3 percent of ex-vessel value) as follows:
    - 1.5 percent goes to the state.
    - 1.5 percent (i.e., one-half of the 3 percent collected) goes to the local governments in whose jurisdiction the processing occurs, which in turn is split 50 percent to the city and 50 percent to the borough.[2]

- All of the processing in the AEB takes place within cities in the borough, and therefore the borough shares all of the FBT 50-50 with the city in which the processing occurs. Therefore, the AEB's $1.8 million FBT revenue represents 0.75 percent of the total ex-vessel value processed in the AEB (with the other 0.75 percent [i.e., the other half of the 1.5 percent the state shares with local governments] going directly to the cities). Dividing $1.8 million by 0.0075 yields an estimated $246.2 million total ex-vessel value of processing in the AEB. Unfortunately for the purposes of further analysis, information from the AEB indicating species-specific ex-vessel values is confidential and cannot be released.

- In addition to the State FBT, the AEB collects a borough fish tax of 2 percent, and each community within the AEB collects local fish taxes of 2 percent, except for Akutan, which taxes at a 1 percent local rate. Thus, all processors in the AEB (with the exception of Akutan) pay 7.0 percent of ex-vessel value in taxes (effectively yielding 1.5 percent of ex-vessel value to the state and 5.5 percent to AEB and local municipalities, after state tax sharing), and for Akutan the analogous figure is 6.0 percent (effectively yielding

[1] Juettner, Robert, Borough Administrator, Aleutians East Borough, AK. Personal communication 5/30/08.

[2] If processing occurs outside of any local government jurisdiction (for example, when a floating processor operates far off the coast of Adak), the State of Alaska shares the taxes with all communities in the "unorganized borough" (i.e., all communities in the state outside of organized boroughs). This includes communities such as Adak, St. Paul, St. George, Unalaska, and many other communities throughout the state, but not Sand Point or others within the AEB.

1.5 percent of ex-vessel value to the state and 4.5 percent to AEB and the City of Akutan, after state tax sharing). Assuming that roughly 50 percent of the total tax revenue was generated in Akutan and 50 percent in other communities within the AEB, the average fish tax collected in AEB communities is 6.5 percent of the total ex-vessel value.

It is also important to note that significant impacts through loss of fishery-related revenue that could result from fishery management actions would be felt in all AEB communities, not just those communities directly engaged in the fishery. This is the case because communities without major processing plants (Cold Bay, False Pass, and Nelson Lagoon) normally benefit from borough expenditures that are made possible by collection of fishery-related revenue in communities with major plants (Akutan, King Cove, and Sand Point). Given that changes in tax revenue resulting from changes in crab landing patterns in one community within the borough are directly linked to expenditures in other communities in the borough (for example, a decline in fish tax revenue in Sand Point paid to the AEB would impact Nelson Lagoon if it were large enough to necessitate reductions in school expenditures), the borough structure would serve to distribute impacts to communities in a different way than seen in the rest of the region that has no such structure. A report commissioned by the AEB several years ago (McDowell Group 2001) underscores the importance of commercial fisheries to the AEB as a whole by noting that seafood industry accounts for approximately 99 percent of the AEB's basic economic employment, 76 percent of all employment, and—through fish taxes—40 percent of the operating budget for the AEB government. An additional AEB commissioned report regarding groundfish trawling restrictions (Noble 2000) provides additional quantitative detail on borough fisheries engagement as do two other studies on groundfish related assessments (Northern Economics 2001a, 2001b). Although these studies may now be somewhat dated with respect to specific dollar values, the overall patterns described are still accurate as of 2008, according to AEB senior staff.

While quantitative data on fish taxes from individual communities within the AEB are subject to confidentiality restrictions, Table B-1 presents direct fish tax revenue data for the borough as a whole for all fisheries. As shown, there is considerable variability from year to year, ranging between $3.0 million and $5.7 million over the span 1990 to 2007. Because of the limited number of processors for some individual species, it is not possible to break out the relative importance of species for revenues to communities, but some detail on the importance of crab relative to groundfish and salmon for the harvest fleet at the borough level and for selected communities prior to the implementation of BSAI crab rationalization may be found in a study commissioned by the Southwest Alaska Municipal Conference (Northern Economics 2001c). Public testimony from the AEB before the NPFMC during the BSAI crab management alternative selection process suggests that crab ranged from slightly under one-tenth to over one-third of the borough's fish tax revenue from year to year from FY 1994 to FY 2001, with a cumulative total of roughly one-quarter of annual borough fish taxes over this time period.[3] Current totals for the value of crab relative to other species cannot be released due to confidentiality restrictions, but it is known that due to BSAI crab rationalization community

[3] The AEB (and some of its constituent communities) have also released species and community-specific data during the public testimony process that cannot be presented in the body of this document due to confidentiality restrictions. Some of these data were presented in written form and were available at NPFMC meetings in 2002 and appear in the compendium of public comments that accompanied the crab rationalization EIS.

protection measures restricting the movement of processor quota through a right-of-first-refusal process, landings of rationalized crab species cannot be dramatically less (proportionally) in the AEB to date (2007-2008) than they were prior to the implementation of the rationalization program.

Table B-2 provides comparative information on the relative contribution of direct fisheries revenue compared to total general funds revenues for the AEB by year for FY 2000 through FY 2007. As shown, direct fisheries revenue accounted for between 88.5 percent and 77.5 percent of all revenues over this period, with the high end of the range being seen in the earlier years and the lowest year being the most recent year available. It is important to note, however, that fisheries revenue has grown over this time period, particularly in FY 2006 and FY 2007 and the relative decrease in proportional importance of fisheries revenues is due to a faster rate of growth of non-fishery revenue sources, not an actual decline in direct fishery revenues.

Table B-1. Aleutians East Borough Selected Fisheries Related General Fund Revenues, FY 1990-2007

Fiscal Year	Selected Fishery Revenue Source				Four Source Total
	Borough Raw Fish Tax	State Raw Fish Tax	State Extra-territorial Fish Tax	State Fish Landing Tax	
1990	$2,004,264	$1,080,522	$0	$0	$3,084,786
1991	$2,923,085	$1,386,428	$0	$0	$4,309,513
1992	$2,418,881	$2,392,602	$0	$0	$4,811,483
1993	$3,083,980	$1,792,032	$0	$0	$4,876,012
1994	$2,557,500	$2,424,754	$54,877	$0	$5,037,131
1995	$2,340,656	$1,834,575	$57,358	$0	$4,232,589
1996	$2,423,460	$1,179,272	$61,214	$0	$3,663,946
1997	$2,183,802	$1,367,815	$59,745	$0	$3,611,362
1998	$2,236,242	$989,420	$97,193	$135,370	$3,458,225
1999	$2,543,559	$1,212,391	$92,098	$97,535	$3,945,583
2000	$3,255,513	$1,132,709	$108,599	$33,877	$4,530,698
2001	$2,348,939	$1,409,784	$127,668	$17,448	$3,903,839
2002	$2,013,524*	$1,354,864	$109,630	$52,311	$3,530,329
2003	$2,493,342	$934,034	$96,804	$1,142,840**	$4,667,020
2004	$3,065,141	$1,310,560	$104,394	$86,219	$4,566,314
2005	$3,161,495	$1,365,444	$125,569	$67,203	$4,594,836
2006	$3,618,637	$1,299,716	$125,477	$99,655	$5,143,485
2007	$3,568,691	$1,846,478	$272,381	$31,524	$5,719,074

*The FY 2002 AEB raw fish tax does not include an additional $217,178 in revenue from Steller sea lion mitigation funds.

**The FY 2003 state fish landing tax figure includes state fish landing tax of $41,202 and state fish landing tax supplement of $1,101,638.

Source: B. Juettner, personal communication, 2002, 2004, 2008

Table B-2. Aleutians East Borough Sources of General Fund Revenue and Direct Fishery Revenue as a Percentage of Total General Fund Revenues, FY 2000-2007

Fiscal Year	Federal Revenue	State Revenue	Local Revenue	Grand Total Revenue	Total Direct Fishery Revenue*	Direct Fishery Revenue as a Percent of All Revenue
2000	$126,657	$1,548,882	$3,451,889	$5,127,428	$4,530,698	88.36%
2001	$140,489	$1,785,696	$2,501,805	$4,427,990	$3,903,839	88.16%
2002	$228,373	$1,759,939	$2,339,728	$4,328,040	$3,747,407**	86.58%
2003	$249,616	$2,499,530	$2,768,691	$5,517,837	$4,667,020	84.58%
2004	$259,952	$1,875,905	$3,460,167	$5,596,024	$4,566,314	81.60%
2005	$275,612	$2,321,303	$3,251,714	$5,848,629	$4,594,836	78.56%
2006	$298,709	$2,301,619	$3,784,436	$6,384,764	$5,143,485	80.56%
2007	$298,245	$3,215,870	$3,861,099	$7,375,214	$5,719,074	77.54%

*For this table, "Direct Fishery Revenue" is defined as comprising AEB raw fish tax, state raw fish tax, state extra-territorial fish tax, and state fish landing tax (see Table B-1). It does not include any fisheries influence on other revenue sources.

**FY 2002 Fishery Revenue Total figure includes $271,178 revenue to the AEB for Steller sea lion impact mitigation.

Source: B. Juettner, personal communication, 2008

APPENDIX C

PUBLICATIONS AND OUTREACH

APPENDIX C
PUBLICATIONS AND OUTREACH

Publications

To date, no peer-reviewed publications have resulted from this study. It is the study team's intent, however, to prepare a journal manuscript based on this study, the previously funded and completed companion study (*Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove and Kodiak, Alaska* [EDAW 2005], jointly by the NPRB [Project 310] and the NPFMC [Contract AFA-1-03]), and the ongoing (2008) work by the study team on the social/community impact assessment work in these communities as part of the NPFMC's 3-year review of BSAI crab rationalization, the latter of which will be completed in draft form in July, 2008. This study, and its previously completed companion study, have substantially contributed to the crab rationalization program post-implementation review process and provided a level of detail for baseline conditions that have allowed for a comprehensive and nuanced analysis that would not have been possible without this work. This has had a direct and positive impact on the program review process, and it is anticipated that this will be just the first of a number of fisheries management decision-making applications of this work.

Outreach

Conference Presentations

Alaska Marine Science Symposium, 2008, Anchorage, Alaska

- **Title:** *Commercial Fishing Community Profiles: Fishery Dependence and Difference in Sand Point, Adak, St. Paul, and St. George, Alaska* (Oral Presentation)

- **Abstract:** This paper presents recent NPRB and NPFMC-sponsored research focused on establishing comprehensive baseline commercial fishing community profiles. The research combines data from the Alaska Commercial Fisheries Entry Commission, the Alaska Division of Community and Regional Affairs, U.S Census, and previously published literature with new interview data and photographs from each of the communities studied. The result is a collection of detailed profiles that combine quantitative and qualitative information, providing a community-specific context for engagement in, and dependence upon, commercial fisheries of the North Pacific region. This current set of community profiles highlights the commercial fishing communities of Adak, St. George, St. Paul, and Sand Point. Each community is intimately connected to the commercial fishery in ways both obvious and subtle, and the nature and magnitude of these connections vary widely. Beyond local harvesting and/or processing sectors, practically all aspects of community life are affected by this interaction, including support services, fiscal revenues, CDQ groups, civic projects, and a range of other community-based economic and social activities. In addition to detailing this interaction, the profiles also characterize the communities' efforts to achieve a diversified economic

base that is commonly understood as imperative for the long-term prosperity of the community. Specific plans or aspirations include large-scale federal projects (Adak), increased eco-tourism (St. George), local participation in a greater number of fisheries (St. Paul), or oil and gas exploration (Sand Point). These developments are largely unrealized to date, however, such that commercial fisheries remain of central importance both in economic and social terms.

American Fisheries Society, 2007, San Francisco, California

- **Title:** *Spatial Relationships and Fishery Engagement/Dependency in Alaskan Communities: Challenges for Analyzing Social Impacts of Ecosystems-Based + Area-Based Management Measures in the North Pacific*. (Poster Presentation)

- **Abstract:** EDAW recently completed a series of comprehensive baseline North Pacific fishing community profiles for Unalaska/Dutch Harbor, Akutan, King Cove, and Kodiak, Alaska and is now in a second phase of this work, developing parallel information for Sand Point, Adak, St. George, and St. Paul, Alaska under the sponsorship of the North Pacific Research Board and the North Pacific Fishery Management Council. This work, building upon other recent efforts, including those of the Alaska Fisheries Science Center, has attempted, in part, to link aspects of community engagement and dependency to fisheries resource utilization on a spatial basis to allow for an assessment of the potential differential distribution of impacts among and within communities resulting from ecosystem- and area-based management measures. The communities involved each presented unique challenges to this type of analysis, based on widely ranging forms of engagement through varying local fleet, processing, and support service sector composition as well as overall community socioeconomic and sociocultural characteristics. Common to all of these communities, however, were difficulties with fishery specific data adequacy and accessibility. This paper summarizes our research, several of the lessons learned, and explores alternative approaches to community-linked data collection and analysis to support ecosystem-based management initiatives.

Alaska Sea Grant Conference, 2006, Anchorage, Alaska

- **Title:** *Portraying the Value of Fishing to Communities: Lessons Learned from a Recent Study of Several Alaskan Communities* (Poster Presentation)

- **Abstract:** In 2005, work was completed on "Comprehensive Baseline Commercial Fishing Community Profiles: Unalaska, Akutan, King Cove and Kodiak, Alaska," jointly funded by the North Pacific Research Board and the North Pacific Fishery Management Council. A central goal of this work was to portray the value of fishing to these communities, highlighting different types of community engagement in and dependency upon a range of commercial fisheries through the local harvest fleet, local processing, local support service businesses and municipal revenues, among other factors. Spatial relationships between community fisheries-related activities and other activities and between the community and its associated commercial fisheries resource base were also described to the extent possible. Based on a number of fishery and community variables,

these community characterizations necessarily relied to different degrees on qualitative versus quantitative information to describe social and economic valuation of fisheries on a localized basis. A follow-on study, to include comprehensive profiles of the communities of Adak, St. George, St. Paul and Sand Point, has been funded and will be initiated in the second half of 2006. The goal of this poster is to provide results and information on lessons learned from the completed study and to prompt discussion and gather input for the second round of the study.

Other Outreach

Copies of this document, like its earlier completed companion document, will be provided in both electronic and hard copy format to community and school libraries in the project communities.

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ALASKA
ALASKA PENINSULA
SAND POINT
BERING SEA
NORTH PACIFIC OCEAN
ALEUTIAN ISLANDS
ST. GEORGE
ST. PAUL
ADAK