Sand Point

People and Place

Location¹



Sand Point is situated on Humboldt Harbor on Popof Island, located off the southern coast of the Alaska Peninsula. The community is 570 air miles southwest of Anchorage. Sand Point is in the Aleutian Islands Recording District, the Aleutians East Census Area, and the Aleutians East Borough. The City boundaries encompass 7.8 square miles of land and 21.1 square miles of water.

Demographic Profile²

In 2010, the U.S. Census determined that there were 976 residents in Sand Point, making it the 67th largest of 352 total Alaskan communities with recorded populations that year. Overall between 1990 and 2010, the population has increased by 5.15%. The Sand Point annual growth rate between 2000 and 2009 was 0.3%, indicating a slow rate of growth. The change in population between 1990 and 2010 is detailed in Table 1.

A majority of residents of Sand Point in 2010 identified themselves as American Indian or Alaska Native (39%), with the remaining racial composition as follows: Asian (34.7%), White (17%), Hispanic or Latino (6.1%), two or more races (5.2%), Black or African American (2.5%), some other race (1.3%), and Native Hawaiian or other Pacific Islander (0.2%). The percentage of the population identifying themselves as American Indian or Alaska Native decreased by 3.3% between 2000 and 2010, with decreases also reported in the percentages of the population identifying themselves as White (10.7%), Hispanic or Latino (7.5%), some other race (0.9%), and Native Hawaiian or other Pacific Islander (0.1%). During the same period, there were increases in the percentage of the population identifying themselves as Asian (11.5%), Black or African American (1%), and two or more races (2.5%). The change in racial and ethnic composition from 2000 to 2010 is provided in Figure 1 below.

In 2010 the average household size was estimated to be 2.54, a slight decrease from 2.8 in 1990 and 2.67 in 2000. However, there has been a slight overall increase in total estimated number of households, from 242 in 1990 to 229 in 2000 to 246 in 2010. Of the 290 housing units surveyed for the 2010 Decennial Census, 146 were owner-occupied, 100 were renter-occupied, and 44 were vacant. An estimated 350 Sand Point residents were living in group quarters in 2010. In a survey conducted by NOAA's Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that an estimated 1,500 people come to Sand Point each year as seasonal workers or transients, primarily to work in the cannery or on fishing boats.

¹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

² U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

Year	U.S. Decennial Census ¹	Alaska Dept. of Labor Estimate of Permanent Residents ²
1990	878	-
2000	952	-
2001	-	921
2002	-	919
2003	-	950
2004	-	911
2005	-	940
2006	-	891
2007	-	992
2008	-	958
2009	-	1,001
2010	976	-

Table 1. Population in Sand Point from 1990 to 201	10 by Source
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¹(1) U.S. Census Bureau (1990). *CP-1: General Population Characteristics of all places within Alaska*. Retrieved November 1, 2011 from http://www.census.gov/prod/www/abs/decennial/1990.html. (2) U.S. Census Bureau (n.d.). *Profile of selected social, economic and housing characteristics of all places within Alaska*. Datasets utilized include the 2000 (SF1 100% and SF3 sample data) and 2010 (Demographic Profile SF) Decennial Census and the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://forting.gov/information.com/information.

http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

² Alaska Department of Labor. (2011). *Current population estimates for Alaskan Communities*. Retrieved April 15, 2011, from http://labor.alaska.gov/research/pop/popest.htm.

Figure 1. Racial and Ethnic Composition, Sand Point: 2000-2010 (U.S. Census).



In 2010, the gender makeup in Sand Point was skewed, at 62.5% male and 37.5% female, much more heavily skewed than the state as a whole (52% male, 48% female). The age classes between 20 and 59 are more heavily skewed towards males. The median age in Sand Point was 40.1 years, higher than the U.S. national average of 36.8 years and the median age for Alaska, 33.8 years. The greatest percentage of residents fell within the age category 40-59 years old, with the next largest percentage for the age category 20-39 years old. Relatively few people were 70 or older (Figure 2).



Figure 2. Population Age Structure in Sand Point Based on the 2000 and 2010 U.S. Decennial Census.

In terms of educational attainment, according to the 2006-2010 American Community Survey (ACS),³ 66.3% of Sand Point residents aged 25 and over were estimated to hold a high school diploma or higher degree, compared to 90.7% of Alaskan residents overall. Also in 2010, 19.8% of Sand Point residents had less than a ninth grade education, compared with 3.5% of Alaska residents overall; 13.9% had a 9th to 12th grade education but no diploma, compared to 5.8% of Alaska residents overall; 29.2% had a high school diploma or equivalent, compared to 27.4% of Alaska residents overall; 16% had some college but no degree, compared to 28.3% of Alaska residents overall; 12.9% held an Associate's degree, compared with 8% of Alaska residents overall; 7.3% held a Bachelor's degree, compared with 17.4% of Alaska residents overall; and 0.8% held a graduate or professional degree, compared with 9.6% of Alaska residents overall.

History, Traditional Knowledge, and Culture

Sand Point is located in the Shumagin Islands, which are thought to take their name from a Russian sailor named Mikita Shumagin who accompanied Vitus Bering in his exploration of the Pacific. The Island on which Sand Point is located, Popof Island, was named after Russian fur traders Silva and Ivan Popof who traded and hunted furs there in the 1760s. The Aleutian Islands and western portion of the Alaska Peninsula have been inhabited by Aleut people for thousands of years. Prior to the arrival of Europeans, the population of Aleuts in the Sand Point region is estimated to have ranged between 12,000 and 20,000 people. Following the arrival of Russian explorers and fur traders, the population of Aleuts declined by 80 or 90 percent as a result of disease, warfare, malnutrition, and forced labor as sea otter hunters.⁴

The present community of Sand Point was founded in 1898 as a cod fishing a trading station by a San Francisco fishing company. The original inhabitants included Scandinavian fishermen and Aleuts from surrounding villages. In the early 1900s, Sand Point served as a repair and supply center for gold mining operations including the Apollo Mine on nearby Unga Island. After both the mining and fur industries declined, the local economy turned to fish processing.^{5,6,7} In 1931, Alaska Pacific Salmon Company opened a salmon cannery on Humboldt Harbor, several miles from the community of Sand Point,⁸ and Aleutian Cold Storage built a halibut processing plant in 1946.⁹

The Sand Point city government was incorporated in 1966. Today, Sand Point is home to the largest fishing fleet in the Aleutian Chain, and commercial fishing is a fundamental element

³ While American Community Survey (ACS) estimates can provide a good snapshot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaska communities with small populations that have a low probability of being adequately sampled.

⁴ URS Corporation. (2004). City of Sand Point Comprehensive Community Development Plan. Prepared for the City of Sand Point. Retrieved March 8, 2013 from http://www.commerce.state.ak.us/dca/plans/SandPoint-CP-2004.pdf.

⁵ Ibid.

⁶ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁷ Shumagin Corporation. (n.d.). *Sand Point and the Shumagin Islands: Sand Point Today*. Retrieved March 8, 2013 from http://www.shumagin.com/Pages/History.html.

⁸ Ibid.

⁹ See footnote 6.

of local culture. The fish processing industry brings a large seasonal transient population.¹⁰ Likewise, subsistence activities are foundational to local culture, and participation in subsistence harvest is very common among local residents. Important local subsistence resources include salmon and a variety of other fish, and land mammals such as moose and caribou.¹¹ The history of Russian involvement in the area is reflected in the presence of the St. Nicholas Chapel, a Russian Orthodox Church that was built in 1933 and is now on the National Register of Historical Places.¹²

It is of note that many shareholders enrolled as members of Pauloff Harbor and Unga Native village corporations have relocated and now live in Sand Point.¹³

Natural Resources and Environment

The Shumagin Island group is of volcanic origin, and is made up of 15 primary islands and many smaller islands.¹⁴ Popof Island rises to a maximum elevation of 1,480 ft. Its coastline is rocky and irregular with many cliffs and bluffs and few protected bays.¹⁵ Popof Island is naturally treeless. Vegetation consists primarily of tundra and alder and willow shrub.¹⁶ Sand Point is located in a maritime climate zone. Temperatures range from -9 to 76 °F (-22.8 to 24.4 °C). Annual snowfall averages 52 inches, and annual precipitation averages 44.68 inches.¹⁷

Popof Island is home to numerous bird species, including eagles, cormorants, kittiwakes, puffins, and ptarmigans. Marine mammal species in the area include sea otters, sea lions, seals, and migrating whales. Terrestrial mammal species include ermine, mink, and ground squirrels. A large herd of buffalo is also present on Popof Island, managed by the local Native village corporation (Shumagin Corporation).^{18,19} The buffalo were first introduced in 1955 by private individuals,²⁰ and are now managed by the local Native village corporation of the Qagan Tayagungin Tribe, the Shumagin Corporation.²¹

Sand Point is located within the Alaska Peninsula unit of the Alaska Maritime National Wildlife Refuge (NWR). In total, the Alaska Maritime NWR stretches from the tip of the Aleutian Islands to the Southeast Alaska Panhandle, and includes St. Matthew Island in the Bering Sea, Hagemeister Island in northern Bristol Bay, and two units bordering the Chukchi Sea. It was created in part to promote a program of scientific research on marine ecosystems. The Alaska Maritime NWR "protects breeding habitat for seabirds, marine mammals, and other wildlife on more than 2,500 islands, spires, rocks, and coastal headlands."²²

¹⁰ Ibid.

¹¹ See footnote 4.

¹² See footnote 6.

¹³ Ibid.

¹⁴ See footnote 7.

¹⁵ See footnote 4.

¹⁶ WHPacific. (2010). *Communities of the Aleutians East Borough Multi-Jurisdictional Multi-Hazards Mitigation Plan.* Retrieved February 16, 2012 from: http://www.aleutianseast.org/vertical/Sites/%7BEBDABE05-9D39-4ED4-98D4-908383A7714A%7D/uploads/%7B5F7E9057-83A3-4DBA-B144-073C3F6461D6%7D.PDF.

¹⁷ See footnote 6.

¹⁸ See footnote 16.

¹⁹ See footnote 4.

²⁰ See footnote 7.

²¹ See footnote 16.

²² U.S. Fish and Wildlife Service (n.d.). *Alaska Maritime National Wildlife Refuge*. Retrieved January 4, 2012 from http://alaskamaritime.fws.gov/.

The Qagan Tayagungin Tribe Environmental Department was developed in 2000 with funding from the Environmental Protection Agency's Indian General Assistance Program funds. Many projects have been done with these program funds over the years including an Abandoned Drum Clean-up in collaboration with the City of Sand Point and the Unga Tribe, an Environmental Youth Group that meets weekly, annual Earth Day fairs, water testing in Sand Point's salmon streams, working with Aleutian Housing to have energy assessments done on houses in Sand Point, developing environmental education, and more. The Qagan Tayagungin Tribe Environmental Department was recognized and given an award for helping to improve the environmental health of the community and making a difference in Alaska at the 14th Annual Alaska Tribal Conference on Environmental Management in 2008.²³

Natural hazards to which Sand Point has been identified to have high vulnerability include earthquakes and volcano activity. The community has also been classified at medium vulnerability to tsunami and severe weather events.²⁴

According to the Alaska Department of Environmental Conservation, there were no notable active environmental cleanup sites located in the Sand Point area as of March 2013.²⁵

Current Economy²⁶

Sand Point is home to the largest fishing fleet in the Aleutian Chain. A Trident Seafood plant processes bottomfish species, pollock, salmon, grinds fish meal and provides fuel and other services. Peter Pan Seafoods owns a storage and transfer station. Locals participate in subsistence consumption of fish and caribou.²⁷ In addition to the seafood industry, top local employers in Sand Point in 2010 included the Aleutians East Borough School District, local government offices, the Shumagin Corporation, health and other community services, local retailers, Peninsula Airways, Inc., and the State of Alaska.²⁸

According to the 2006-2010 ACS,²⁹ the estimated per capita income in Sand Point in 2010 was \$22,610, and the estimated median household income in 2010 was \$63,750, compared to \$21,954 and \$55,417 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,³⁰ the real per capita income (\$28,869) and the real median household income in 2000 (\$72,873) indicate a substantial decrease in these income measures between 2000 and 2010. However, Sand Point's small population size may have

²³ The Qagan Tayagungin Tribe of Sand Point. 2009. *Homepage*. Retrieved January 31, 2012 from http://www.qttribe.org.

 ²⁴ See footnote 16.
²⁵ Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved March 8, 2013 from http://dec.alaska.gov/spar/csp/list.htm.

²⁶ Unless otherwise noted, all monetary data are reported in nominal values.

²⁷ Alaska Dept. of Comm. and Rural Affairs. (n.d.). Community Database Online. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF BLOCK.htm.

²⁸ Alaska Department of Labor and Workforce Development (n.d.). Alaska Local and Regional Information Database. Retrieved April 23, 2012 from http://live.laborstats.alaska.gov/alari/.

²⁹ U.S. Census Bureau (n.d.). Profile of selected social, economic and housing characteristics of all places within Alaska. Datasets utilized include the 2010 American Community Survey 5-year estimates. Retrieved November 1, 2011 from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml.

³⁰ Inflation was calculated using the Anchorage Consumer Price Index for 2010 (retrieved October 18, 2011 from the Alaska Department of Labor, http://labor.alaska.gov/research/cpi/inflationcalc.htm).

prevented the ACS from accurately portraying economic conditions.³¹ A potentially more accurate understanding of per capita income is obtained through economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development. If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Decennial Census, the resulting per capita income estimate for Sand Point in 2010 is \$7,920, which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2010.³²

In 2010, Sand Point ranked 130th of 305 Alaskan communities with per capita income that year, and 68th out of 299 Alaskan communities with household income data. Based on the ACS, in the same year, 92.8% of the population age 16 and older was estimated to be in the civilian labor force, compared to the statewide rate of 68.8%. The local unemployment rate was 5.8%, compared to the statewide unemployment rate of 5.9%. Approximately 9% of local residents were living below the poverty line in 2010, compared to 9.6% of Alaskan residents overall. It should be noted that income and poverty statistics are based on wage income and other money sources; figures reported for Sand Point are not reflective of the value of subsistence to the local economy. In addition, these unemployment and poverty statistics are likely inaccurate given the small population of Sand Point. A more accurate estimate is based on the ALARI database, which indicates that the unemployment rate in 2010 was 16.6%.

Based on the 2006-2010 ACS, the greatest percentage of workers was employed in the private sector (94.1%), while 3.9% worked in the public sector and 2.1% were self-employed. Of the 1060 people age 16 and over that were estimated to be in the civilian labor force in 2010, a majority was estimated to work in the manufacturing industry (82.2%). Only small percentages of the population were estimated to work in other industries. Compared to 2000, the distribution of employment was much more concentrated in manufacturing in 2010. It is important to keep in mind that the small population of Sand Point may affect the representativeness of 2006-2010 ACS estimates, which could explain the dramatic shift in employment statistics between 2000 and 2010.³³ This information about employment by industry is presented in Figure 3.

Employment statistics by occupation show similar trends, with a large increase in production, transportation, and material moving occupations between 2000 and 2010, and a reduction in employment in other occupations. Employment is broken down by occupation in Figure 4. In 2010, 2.8% of the workforce was estimated to be employed in natural resource industries that include fishing, and 3.3% was estimated to work in natural resource occupations that could include fishing. It is important to note that the number of individuals employed in fishing is probably underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly, given the data reported in the *Commercial Fishing* section below.

³¹ While American Community Survey (ACS) estimates can provide a good snapshot estimate for larger populations, smaller populations can be misrepresented by ACS estimates if demographic information is not collected from a representative sample of the population. This is especially problematic for Alaska communities with small populations that have a low probability of being adequately sampled.

³² See footnotes 28 and 29.

³³ See footnote 31.



Figure 3. Local Employment by Industry in 2000-2010, Sand Point (U.S. Census).

Figure 4. Local Employment by Occupation in 2000-2010, Sand Point (U.S. Census).



Governance

The City of Sand Point is a 1st Class City governed by a mayor and city council. It is located within the Aleutians East Borough. As of 2010, the City administered a 3% sales tax, a 7% bed tax, and a 2% raw fish tax (in addition to the 2% raw fish tax administered by the Borough).³⁴ In addition to local tax revenues, other locally-generated revenue sources in Sand Point during the 2000-2010 period included building and equipment rentals, business license fees, harbor revenues from moorage, wharfage, use of the lift, and storage, and receipts from bingo/pull tab/concessions. Outside revenue sources included shared funds from various state and federal programs, as well as grants. Shared funds were received from the State Revenue Sharing program in 2009 and 2010 (approximately \$145,000 per year). Of the grants received during the 2000-2010 period, several were fisheries-related. These included grants for harbor improvements and construction, in addition to a ferry dock warehouse, a city dock warehouse, and float construction for the harbor.

More than \$1 million in sea lion mitigation funds contributed to higher than average total municipal revenue in 2002. According to city leaders, sea lion mitigation payments were used to build a warehouse for fishermen and to assist in payment of utility bills.³⁵ The higher total in 2006 can be explained by receipt of a more than \$2 million grant from the Denali Commission for construction of a new health clinic in Sand Point. Information about selected revenue sources is presented in Table 2. Also see the *Fisheries-Related Revenue* section for more information about shared state fish tax revenues.

Many Native community members residing in Sand Point are members of the three Native Tribes located in the community. The Qagan Tayagungin Tribe of Sand Point Village, the Native Village of Unga, and Pauloff Harbor Village were all included under the Alaska Native Claims Settlement Act (ANCSA), and are federally recognized by the Bureau of Indian Affairs. Three Native village corporations are also located in Sand Point. The Shumagin Corporation is the village corporation associated with the Qagan Tayagungin Tribe, the Unga Corporation is associated with the Native village of Unga, and the Sanak Corporation is associated with the Pauloff Harbor Tribe.³⁶ Many members of the Tribes are also shareholders in the Aleut Corporation, the regional Native corporation of the eastern Alaska Peninsula, Aleutian and Pribilof Islands.³⁷

In addition, the Tribes are members of the Aleutian Pribilof Islands Association (APIAI), one of the 12 regional Alaska Native 501(c)(3) nonprofit organizations that were identified under ANCSA and charged with naming incorporators to create regional for-profit corporations. Today, these regional Native Associations receive federal funding to administer a broad range of services to villages in their regions.³⁸ APIAI provides services including cultural heritage, health, education, social, psychological, employment, vocational training, environment, natural

³⁴ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

 ³⁵ Southwest Alaska Municipal Conference. 2001. *Steller Sea Lion Mitigation Program*. Retrieved October 21, 2013 from http://www.swamc.org/files/SSL%2010%20Yr%20Review-%20FINAL.pdf.
³⁶ Ibid.

³⁷ Aleut Corporation. (2008). *Homepage*. Retrieved February 9, 2012 from http://www.aleutcorp.com.

³⁸ U.S. Government Accountability Office. 2005. *Alaska Native Villages: Report to Congressional Addressees and the Alaska Federation of Natives*. Retrieved February 7, 2012 from http://www.gao.gov/new.items/d05719.pdf.

resources, and public safety services.³⁹ Additionally, a company called Eastern Aleutian Tribes, Inc., formed in 1991, provides medical, dental, and behavioral health services to the three Native Tribes in Sand Point as well as four other Aleut Tribes from the Aleutian Islands and Alaska Peninsula.⁴⁰

The Alaska Department of Fish and Game (ADF&G) has an office in Sand Point. Dillingham has the nearest office of the Alaska Department of Commerce, Community, and Economic Development. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services offices are located in Unalaska and Anchorage. Anchorage also has the closest office of the Alaska Department of Natural Resources.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of SandPoint from 2000 to 2010.

Year	Total Municipal Revenue ¹	Sales Tax Revenue ²	State/Community Revenue Sharing ^{3,4}	Fisheries-Related Grants (State and Federal) ⁵
2000	\$3,340,445	\$397,888	\$27,275	n/a
2001	\$3,737,101	\$360,360	\$26,308	\$70,000
2002	\$5,363,671	\$326,640	\$26,303	\$2,700,000
2003	\$2,932,229	\$342,075	\$28,465	n/a
2004	\$2,030,458	\$466,137	n/a	\$10,000,000
2005	\$3,055,154	\$483,742	n/a	n/a
2006	\$6,159,831	\$633,862	n/a	n/a
2007	\$2,572,588	\$642,588	n/a	\$2,000,000
2008	\$2,303,490	\$663,749	n/a	\$200,000
2009	\$2,372,476	\$718,017	\$144,872	n/a
2010	\$2,216,255	\$673,355	\$146,202	\$1,100,000

¹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Financial Documents Delivery System*.
Retrieved April 15, 2011from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.
²Alaska Dept. of Comm. and Econ. Dev. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

³Alaska Dept. of Rev. (n.d.). (2000-2009) Taxes and Fees Annual Report. Retrieved April 15, 2011from https://www.tax.state.ak.us.

⁴ The State Revenue Sharing program ceased in 2003 and was replaced by the Community Revenue Sharing program starting in 2009.

⁵Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved April 15, 2011from http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm.

Infrastructure

Connectivity and Transportation

Sand Point has a state-owned airport with a 5,213 ft long by 150 ft wide asphalt runway. Direct flights to Anchorage are available. Marine facilities include a 25-acre boat harbor with four docks, 134 boat slips, a harbormaster office, barge off-loading area, and a 150-ton lift. Regular barge services supply the community. The state ferry operates between Sand Point and

³⁹ Aleutian Pribilof Islands Association (n.d.). *Homepage*. Retrieved January 3, 2012 from http://www.apiai.com/.

⁴⁰ Eastern Aleutian Tribes, Inc. (n.d.) *Home*. Retrieved October 21, 2013 from http://www.eatribes.org/.

Unalaska, Akutan, False Pass, Cold Bay, and King Cove between May and October.⁴¹ According to a representative of the Qagan Tayagungin Tribe, residents of Sand Point were paying \$1,094 for a roundtrip airfare between Sand Point and Anchorage as of Fall 2013.⁴²

Facilities

The Sand Point water supply is derived from Humboldt Creek and is filtered and chlorinated. The City operates a piped water and sewer system that serves 170 households and 22 businesses, all of which are fully plumbed. The City also operates a landfill which has been relocated in recent years.⁴³ Electricity is provided to the community by TDX Power, a subsidiary of the Tanadgusix Corporation, the Native village corporation of the Aleut Community of Saint Paul. TDX Power operates a diesel powerhouse in Sand Point, supplemented by two large windmills.⁴⁴ Fire and rescue services are provided by Sand Point Emergency Medical Services (EMS). The City Police Department provides local law enforcement service.⁴⁵ The nearest state trooper post is located in the City of Cold Bay.⁴⁶

In a survey conducted by the AFSC in 2011, community leaders reported that a number of infrastructure projects have been completed in the last 10 years, including a fish cleaning station, a barge landing area, roads serving the dock space, pilings, a breakwater, harbor dredging, a jetty, dry dock space, haulout facilities, broadband internet access, roads, an airport/seaplane base, water and sewer pipelines, a diesel powerhouse, sewage treatment, water treatment, a new landfill/solid waste site, a community center/library, a police department, emergency response, fire department, and school, telephone service, and a post office. In addition, community leaders indicate that projects in progress include electricity serving the dock, water serving the dock, and alternative energy. Projects planned for the next ten years include construction of new dock space, improvements to existing dock structures, fuel tanks at the dock, and an EPA certified boat cleaning station. In the same survey, community leaders report that Sand Point has 1800 ft of dock space available for both permanent and transient vessels up to 127 ft long. Sand Point is capable of handling rescue vessels, cruise ships, ferries, and fuel barges. For fisheries-related businesses and services not available in Sand Point, community leaders indicated that residents typically travel to Anchorage, Seward, or Kodiak.

Medical Services

Medical services are provided by the Sand Point Community Health Clinic, which is owned by the City and operated by the Eastern Aleutian Tribes, Inc. The clinic is a Community Health Aid Program site.⁴⁷ According to a Emergency Trauma Technician stationed in Sand Point, the nearest qualified Emergency Care Center is located in Cold Bay. The nearest hospital is located in Dillingham. However, the only direct flights out of Sand Point go to Anchorage, and

⁴¹ Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

 ⁴² Personal communication from a Qagan Tayagungin Tribal leader. Email sent Oct. 9 and received Oct. 17, 2013.
⁴³ See footnote 41.

⁴⁴ See footnote 42.

⁴⁵ See footnote 41.

⁴⁶ Alaska Dept. of Public Safety. 2012. *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from http://www.dps.state.ak.us/ast/detachments.aspx.

⁴⁷ See footnote 41.

all medivac flights bring patients to hospitals in Anchorage.⁴⁸ Emergency Services have limited marine and air access, and are provided by 911 Telephone Service volunteers and a health aide. Alternate health care is available through Sand Point Emergency Medical Services.⁴⁹

Educational Opportunities⁵⁰

The Sand Point School provides instruction for students from pre-school through 12th grade. In 2011, the school had 133 students and 14 teachers. Students in Sand Point also have access to the Aleutians East Correspondence School for grades 7 through 12, though in 2010, the school did not have any students enrolled or any teachers employed.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Subsistence harvest has been important to residents of the Sand Point area for thousands of years. Villages and fish camps were often located at mouths of streams for access to both fresh water and abundant salmon runs.⁵¹ During Alaska's Russian period, salmon remained a subsistence resource, but soon after the purchase of Alaska by the United States in 1867, commercial exploitation of salmon was initiated.⁵² Herring was one of the earliest commercial fisheries, along with salmon, during the period when the product was salted for storing and shipment.⁵³ Halibut and groundfish fisheries began to develop in the Alaska Peninsula region by the 1920s with the development of diesel engines, which allowed fishing vessels to undertake longer trips.^{54,55}

Between 2000 and 2010, Sand Point residents were highly engaged in federal and state fisheries for groundfish and crab, as well as state fisheries for salmon, halibut, and herring. Groundfish and crab fisheries that occur within 3 nautical miles (nmi) of the coast or in inland waters are under the jurisdiction of the State of Alaska, and fisheries that take place beyond 3 nmi in the U.S. Exclusive Economic Zone (EEZ) are under federal jurisdiction. Pacific halibut fisheries are managed under the International Pacific Halibut Commission. The Peninsula-Aleutian salmon fishery is managed by ADF&G. Sand Point is located in Federal Statistical and Reporting Area 610, the Western Gulf of Alaska (GOA) Sablefish Regulatory Area, Pacific

⁴⁸ See footnote 42.

⁴⁹ See footnote 41.

⁵⁰ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from http://eed.alaska.gov/stats/.

⁵¹ Alaska Native Heritage Center (n.d) *The Unangax & Alutiiq (Supiaq) People - Who We Are*. Retrieved January 4, 2012 from http://www.alaskanative.net/en/main_nav/education/culture_alaska/unangax/.

⁵² Clark, McGregor, Mecum, Krasnowski and Carroll. 2006. "The Commercial Salmon Fishery in Alaska." *Alaska Fisheries Research Bulletin* 12(1):1-146. Alaska Dept. of Fish and Game. Retrieved January 4, 2012 from http://www.adfg.alaska.gov/static/home/library/PDFs/afrb/clarv12n1.pdf.

 ⁵³ Woodby, Doug, Dave Carlile, Shareef Siddeek, Fritz Funk, John H. Clark, and Lee Hulbert. 2005. *Commercial Fisheries of Alaska*. Alaska Dept. of Fish and Game, Special Publication No. 05-09. Retrieved December 29, 2011 from http://www.adfg.alaska.gov/FedAidPDFs/sp05-09.pdf.
⁵⁴ Ibid.

⁵⁵ Thompson, William F. and Norman L. Freeman. 1930. *History of the Pacific Halibut Fishery*. Report of the International Fisheries Commission. Number 5. Retrieved June 1, 2012 from http://ww.iphc.int/publications/scirep/Report0005.pdf.

Halibut Fishery Regulatory Area 3B, and the Southeastern District of the South Peninsula subarea of the Peninsula-Aleutian salmon fishery.

Groundfish fisheries target a variety of species, including pollock, Pacific cod, sablefish, Atka mackerel, lingcod, and various rockfish and flatfish species. In addition to federal groundfish fisheries that take place in the Central and Western Gulf of Alaska (GOA), parallel fisheries takes place in the South Alaska Peninsula region for Pacific cod, walleye pollock, and Atka mackerel. Parallel fisheries take place at the same time as the federal fisheries for these species, and the Total Allowable Catch (TAC) set by NMFS applies to both fisheries. In addition to the parallel Pacific cod fishery, beginning in 1997, a 'state-waters fishery' for Pacific cod was initiated in the South Alaska Peninsula area. It is managed under a guideline harvest limit (GHL) determined by ADF&G, and is not conducted as a parallel fishery. ADF&G also has separate GHL's and seasons for sablefish, lingcod, black rockfish, and blue rockfish fisheries in the western GOA region.⁵⁶

Herring are harvested for bait in the vicinity of Unalaska when Togiak-spawning herring are in residence during the summer feeding period. On occasion, a herring sac roe fishery occurs near Port Moller when aerial surveys determine that a sufficient quantity of herring is present, and if processing capacity is available. Red and golden king crab and Tanner crab occur throughout the Bering Sea and Aleutian Islands, as well as the Gulf of Alaska. The Alaska Peninsula and eastern Aleutian Islands are a historical center of the Dungeness crab fishery.⁵⁷

Sand Point participates in the Community Quota Entity (CQE) program, and has established a CQE non-profit called Aleutia, Inc. As of Fall 2013, Aleutia, Inc. held four non-trawl groundfish License Limitation Program permits for lease to eligible community members, but had not acquired commercial halibut Individual Fishing Quota or halibut charter permits.⁵⁸ In addition, in 2008, Aleutia, Inc. purchased processor quota shares.⁵⁹ For more information see the *Processing Plants* section below.

Sand Point is not eligible to participate in the Community Development Quota (CDQ) program. In a survey conducted by the AFSC in 2011, community leaders reported that the annual variation in population in Sand Point is "entirely" driven by employment in the fishing sectors and that Sand Point's economy relies on fishing and on sport hunting and fishing.

Processing Plants

ADF&G's 2010 Intent to Operate list indicated that Trident Seafoods was the only processing plant operating in Sand Point that year. Trident Seafoods Corporation was founded in 1973, and by the year 2000 was employing 4,000 people annually throughout Alaska and the Pacific Northwest. Its Sand Point facility is located on Popof Island in the Shumagin Islands and began operations in 1979.⁶⁰ The plant operates year-round and processes Pacific cod, sablefish, halibut, pollock, salmon, other assorted bottomfish, and crab. The facility employs between 50 and 420 employees depending on the season.⁶¹ Their peak season is from January to April (during which time they have about 400 employees) and they process gray cod and pollock

⁵⁶ See footnote 53.

⁵⁷ Ibid.

⁵⁸ NOAA Fisheries. (2013). Community Quota and License Programs and Community Quota Entities. Retrieved October 30, 2013 from http://alaskafisheries.noaa.gov/ram/cqp.htm.

⁵⁹ Aleutia (n.d.). *About Us.* Retrieved on May 2, 2012 from http://www.aleutia.org/our-story.

⁶⁰ Source: AFSC survey of processing plant managers in 2011.

⁶¹ Ibid.

during this time. The Sand Point facility provides room and board at a nominal cost for processing plant workers as well as free air transportation to Sand Point from Seattle and back.⁶²

It is important to note that, between 2005 and 2007, the CQE entity for Sand Point -Aleutia, Inc. – was also registered on ADF&G's Intent to Operate list. In addition to processing and marketing sockeye salmon caught by local fishermen, Aleutia, Inc. provides support and education to fishermen. In 2008, Aleutia purchased processor quota shares of Bristol Bay red king and Tanner crab and signed an agreement for the crab to be processed by Peter Pan Seafood in King Cove, Alaska.⁶³ According to testimony by Aleutia marketing consultant Karen Montoya to the North Pacific Fisheries Management Council in February, 2010, the contract signed in 2008 led to significant losses on the part of Aleutia, and the CQE non-profit was engaged in efforts to renegotiate contract terms.⁶⁴

Fisheries-Related Revenue

Sand Point receives fisheries-related revenue from a 2% city raw fish tax, the Shared Fisheries Business Tax, the Fisheries Resource Landing Tax, and the Extraterritorial Fish Tax. In addition, in a survey conducted by the AFSC in 2011, community leaders reported that Sand Point received revenue from fees associated with fishing gear storage on public land in 2010. In the same survey, community leaders indicated that the following public services are at least partially supported by revenue from fisheries-related sources: harbor maintenance, hospital/medical clinic/emergency response, roads, social services, water and wastewater systems, and police/enforcement/fire protection.

Revenue received from fisheries-related sources is detailed in Table 3. The amount of revenue received from the raw fish tax between 2000 and 2010 remained relatively stable, while the revenue received from the Shared Fisheries Business Tax increased substantially during that same period. Also between 2000 and 2010, revenue received from the fisheries resource landing tax went from zero to a high of \$34,120 in 2009, remaining high at \$22,721 in 2010. Revenue received from the extraterritorial fish tax also varied annually between 2000 and 2010, ranging from \$11,222 in 2008 to a high of \$85,000 in 2010. The total fisheries-related revenue received by Sand Point varied considerably between 2000 and 2010 (Table 3).⁶⁵

Commercial Fishing

In a survey conducted by the AFSC in 2011, community leaders indicated that Sand Point does not participate in the fisheries management process in Alaska. In addition, community leaders stated that commercial fishing boats from those under 35 ft to those over 125 ft that use Sand Point as their base of operations during the fishing season use the following gear types: trawl, pots, longline, gillnet, and purse seines. In 2010, 122 Sand Point residents held a total of 309 commercial fishing permits. Number of permits held and total permit holders declined slightly between 2000 and 2009, before rebounding to close to 2000 levels in 2010. In 2010,

⁶² Trident Seafoods Company. Alaska Plants: Sand Point. Retrieved on May 2, 2012 from

http://www.tridentseafoods.com/company/plants_alaska.php#Saint.

⁶³ See footnote 59.

⁶⁴ Aleutians East Borough. March 16, 2012. Testimony offered to the North Pacific Fisheries Management Council by Karen Montoya, Feb. 2010. Published in Fish News. Retrieved July 9, 2012 from http://www.aleutianseast.org.

⁶⁵ A direct comparison between fisheries-related revenue and total municipal revenue cannot reliably be made as not all fisheries-related revenue sources are included in the municipal budget.

Sand Point residents held groundfish and crab License Limitation Program (LLP) permits, Federal Fisheries Permits, and crab, halibut, herring, groundfish, and salmon Commercial Fisheries Entry Commission (CFEC) permits. Between 2000 and 2010, the number of groundfish LLP permits decreased slightly, though the number of permits reported to be actively fished remained relatively consistent throughout the period. The number of crab LLP permits held by Sand Point residents also decreased during the same time period, and no crab LLP permits were recorded as actively fished between 2005 and 2010. The number of Federal Fisheries Permits held by Sand Point residents also decreased between 2000 and 2009, though the number and percentage of permits reported as actively fished remained relatively constant.

The number of crab CFEC permits and the percentage of those permits reported as fished remained relatively low between 2000 and 2009 (with the exception of 2001 and 2005), but increased substantially in 2010. In 2010, crab CFEC permits were issued for the Alaska Peninsula Dungeness crab pot gear fishery using vessels under 60 ft, the Bristol Bay king crab pot gear fishery using vessels 60 ft or over, and the Bering Sea (using vessels 60 ft or over) and Peninsula-Aleutians (using vessels under 60 ft) Tanner crab pot gear fisheries.

The number of shellfish and sablefish CFEC permits remained low or at zero between 2000 and 2010, with varying percentages of permits reported as fished in years where those permits were held. The number of halibut CFEC permits held by Sand Point residents decreased slightly between 2000 and 2010, though the number of permits reported as fished remained stable during that period. In 2010, all but one of the halibut CFEC permits were issued for the statewide longline fishery using vessels under 60 ft, with the remaining permit issued for the statewide mechanical jig fishery.

The number of herring CFEC permits held decreased steadily between 2000 and 2010, and none of those permits were reported as fished between 2005 and 2010. Herring CFEC permits were issued in 2010 for the herring (roe and food/bait) purse seine fishery in Cook Inlet, and the Peninsula-Aleutians roe herring purse seine and herring for bait/food purse seine fisheries.

The number of groundfish CFEC permits held decreased from 2000 to 2010, and while the number of permits reported as fished has varied during this period, the 2010 number of permits fished was similar to that in 2000. Groundfish CFEC permits were issued in 2010 for the following miscellaneous saltwater finfish fisheries: statewide and Gulf of Alaska longline fisheries using vessels under 60 ft, statewide and Gulf of Alaska pot gear fisheries using vessels under 60 ft, statewide and Gulf of Alaska mechanical jig fisheries, statewide and Gulf of Alaska otter trawl fisheries using vessels under 60 ft, statewide otter trawl fishery using vessels between 90 and 125 ft, and the Gulf of Alaska pot gear fishery using vessels 60 ft or over.

The number of salmon CFEC permits held remained relatively stable between 2000 and 2010, though the number of permits reported as fished decreased during the same period. In 2010, the majority of the salmon CFEC permits were issued for the Peninsula-Aleutians set gill net and purse seine fisheries. The remainder of the salmon CFEC permits was for the Prince William Sound and Peninsula-Aleutians drift gill net fisheries, the southeast purse seine fishery, the Lower Yukon gill net fishery, and the statewide power gurdy troll fishery. Data regarding commercial fishing permits held and percentages of those permits reported as fished are detailed in Table 4.

In 2010, there were 162 residents of Sand Point holding crew licenses, a decrease from the 224 crew license holders in 2000. The number of fish buyers in Sand Point has been variable between 2000 and 2010, though the number of shore-side processing facilities in Sand Point did

not change during that time. Both the number of vessels owned primarily by Sand Point residents and the number of vessels homeported in Sand Point have both decreased substantially between 2000 and 2010, and the number of vessels landing catch in Sand Point has been variable during the same period. While the landings and ex-vessel value of catch landed in Sand Point are considered confidential in some years due to a small number of participants, for years between 2000 and 2010 in which data were available both the landings and ex-vessel value have remained relatively stable (Table 5).

While the number of halibut quota share account holders and amount of annual individual fishing quota (IFQ) allotment have both decreased between 2000 and 2010, the number of halibut quota shares held decreased only slightly during this period (Table 6). The number of sablefish quota share holders has remained at either one or two between 2000 and 2010, though the number of quota shares and annual number of lbs of IFQ allotment have both decreased substantially – both a decrease overall between 2000 and 2010 and a major decrease from ten-year highs in 2003 and 2004 (Table 7). While the number of crab quota share holders increased by just one, from two to three, between 2005 and 2010, the number of crab quota shares held increased more than tenfold during this period (from 253,569 to 4,097,380), as did the annual IFQ allotment (from 1,517 lbs to 142,125 lbs) (Table 8).

With the exception of landings and ex-vessel value for salmon in 2002, 2004-2006, and 2010, the landings and ex-vessel value of catch landed in Sand Point between 2000 and 2010 are considered confidential due to a small number of participants (Table 9). For years in which salmon data are not confidential, both landings and ex-vessel value decreased during over the course of the years reported. For landings and ex-vessel value of catch landed by Sand Point vessel owners, data on landings and ex-vessel value for the species reported are variable from year to year (Table 10). Overall, however, total landings and ex-vessel value for all non-confidential species and years indicate that landings and ex-vessel value have decreased slightly between 2000 and 2010.

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	\$501,097	\$310,741	\$295,659	\$419,971	\$526,295	\$597,372	\$605,291	\$595,703	\$595,703	n/a	\$500,689
Shared Fisheries											
Business Tax ¹	\$143,428	\$187,913	\$164,248	\$130,981	\$169,756	\$232,890	\$237,386	\$249,235	\$245,123	\$268,867	\$341,610
Fisheries Resource											
Landing Tax ¹	n/a	n/a	n/a	\$546	\$1,147	\$4,438	\$18,223	\$15,193	\$32,201	\$34,120	\$22,721
Fuel transfer tax ²	n/a										
Extraterritorial fish											
tax ²	\$29,141	\$36,453	\$30,000	\$28,875	\$27,474	\$27,474	\$40,000	\$12,522	\$11,222	\$22,518	\$85,000
Bulk fuel transfers ¹	n/a										
Boat hauls ²	n/a										
Harbor usage ²	n/a										
Port/dock usage ²	n/a										
Fishing gear storage											
on public land ³	n/a	\$15,000									
Marine fuel sales											
tax ³	n/a										
Total fisheries-											
related revenue ⁴	\$673,666	\$535,107	\$489,907	\$580,374	\$724,672	\$862,174	\$900,900	\$872,653	\$884,249	\$325,505	\$965,020
Total municipal											
revenue ⁵	\$3,340,445	\$3,737,101	\$5,363,671	\$2,932,229	\$2,030,458	\$3,055,154	\$6,159,831	\$2,572,588	\$2,303,490	\$2,372,476	\$2,216,255

Table 3. Known Fisheries-Related Revenue (in U.S. Dollars) Received by the Community of Sand Point: 2000-2010.

Note: n/a indicates that no data were reported for that year.

¹ Alaska Dept. of Comm. and Econ. Dev. (n.d.) Alaska Taxable (2000-2010). Retrieved April 15, 2011 from

http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

² Alaska Dept. of Comm. and Rural Affairs. (n.d.) Financial Documents Delivery System. Retrieved April 15, 2011 at

http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

³ Reported by community leaders in a survey conducted by the AFSC in 2011.

⁴ Total fisheries related revenue represents a sum of all known revenue sources in the previous rows.

⁵ Total municipal revenue represents the total revenue that the City reports each year in its municipal budget. Alaska Dept. of Comm. and Rural Affairs. (n.d.) *Financial Documents Delivery System.* Retrieved April 15, 2011 at http://www.commerce.state.ak.us/dcra/commfin/CF FinRec.cfm.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	63	59	54	53	54	54	49	49	47	50	50
	Active permits	24	23	21	25	20	18	16	14	17	19	21
	% of permits fished	38%	38%	38%	47%	37%	33%	32%	28%	36%	38%	42%
	Total permit holders	49	46	43	44	43	43	41	41	39	41	41
Crab (LLP) ¹	Total permits	6	6	4	4	4	4	3	3	3	3	3
	Active permits	1	1	1	1	1	1	0	0	0	0	0
	% of permits fished	16%	16%	25%	25%	25%	25%	-	-	-	-	-
	Total permit holders	5	5	4	4	4	4	3	3	3	3	3
Federal Fisheries	Total permits	46	47	48	36	36	37	27	27	28	30	32
Permits ¹	Fished permits	0	0	0	26	23	23	16	16	20	20	23
	% of permits fished	-	-	-	72%	64%	62%	59%	59%	71%	67%	72%
	Total permit holders	37	38	39	30	30	31	22	22	23	26	28
Crab (CFEC) ²	Total permits	6	40	8	10	7	42	13	12	12	10	59
	Fished permits	6	32	6	7	6	31	3	3	8	5	55
	% of permits fished	100%	80%	75%	70%	86%	74%	23%	25%	67%	50%	93%
	Total permit holders	4	37	7	10	7	35	13	11	11	9	55
Other shellfish (CFEC) ²	Total permits	1	2	2	1	2	0	0	0	0	0	0
	Fished permits	0	1	1	1	2	0	0	0	0	0	0
	% of permits fished	-	50%	50%	100%	100%	-	-	-	-	-	-
	Total permit holders	1	2	2	1	2	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	51	50	49	47	45	40	40	37	39	41	44
	Fished permits	37	38	40	39	32	29	29	27	32	34	35
	% of permits fished	73%	76%	82%	83%	71%	73%	73%	73%	82%	83%	80%
	Total permit holders	48	47	48	46	44	39	40	37	39	41	43
Herring (CFEC) ²	Total permits	20	16	13	16	12	8	5	5	5	4	4
	Fished permits	7	6	4	3	1	0	0	0	0	0	0
	% of permits fished	35%	38%	31%	19%	8%	-	-	-	-	-	-
	Total permit holders	13	12	11	13	11	7	4	4	4	3	3

Table 4. Permits and Permit Holders by Species, Sand Point: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	1	2	4	4	3	0	0	0	0	1	0
	Fished permits	0	1	0	0	1	0	0	0	0	1	0
	% of permits fished	-	50%	-	-	33%	-	-	-	-	100%	-
	Total permit holders	1	2	4	4	3	0	0	0	0	1	0
Groundfish (CFEC) ²	Total permits	145	136	134	119	109	97	78	76	101	89	100
	Fished permits	67	66	74	82	73	60	32	40	69	51	64
	% of permits fished	46%	49%	55%	69%	67%	62%	41%	53%	68%	57%	64%
	Total permit holders	83	82	75	73	71	61	52	53	67	60	73
Other Finfish (CFEC) ²	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	108	113	109	107	100	97	95	102	101	98	102
	Fished permits	90	89	66	63	66	65	66	68	73	70	72
	% of permits fished	83%	79%	61%	59%	66%	67%	69%	67%	72%	71%	71%
	Total permit holders	99	101	99	100	92	94	83	91	90	86	90
Total CFEC Permits ²	Permits	332	359	319	304	278	284	231	232	258	243	309
	Fished permits	207	233	191	195	181	185	130	138	182	161	226
	% of permits fished	62%	65%	60%	64%	65%	65%	56%	59%	71%	66%	73%
	Permit holders	122	127	126	127	119	116	101	102	111	104	122

Table 4 Cont. Permits and Permit Holders by Species, Sand Point: 2000-2010.

¹National Marine Fisheries Service. 2011. Data on License Limitation Program, Alaska Federal Processor Permits (FPP), Federal Fisheries Permits (FFP), and Permit holders. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

² Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Year	Crew License Holders ¹	Count Of All Fish Buyers ²	Count Of Shore- Side Processing Facilities ³	Vessels Primarily Owned By Residents ⁴	Vessels Homeported ⁴	Vessels Landing Catch In Sand Point ²	Total Net Pounds Landed In Sand Point ^{2,5}	Total Ex-Vessel Value Of Landings In Sand Point ^{2,5}
2000	224	4	1	223	210	153	72,981,686	\$18,588,830
2001	188	1	1	220	215	189		
2002	159	10	1	190	183	405	97,944,831	\$26,573,949
2003	148	3	1	167	161	290		
2004	149	9	1	164	159	269	86,148,477	\$30,374,591
2005	150	7	1	150	151	269	93,646,280	\$27,882,581
2006	152	6	1	135	147	224	72,290,356	\$28,872,829
2007	148	2	1	135	152	157		
2008	177	3	1	146	159	182		
2009	164	3	1	137	156	164		
2010	162	6	1	146	170	214	78,304,715	\$30,421,325

Table 5. Characteristics of the Commercial Fishing Sector in Sand Point: 2000-2010.

Note: Cells showing "–" indicate that the data are considered confidential.

¹ Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

² Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

³ Alaska Department of Fish and Game. (2011). Data on Alaska fish processors. ADF&G Division of Commercial Fisheries. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

⁴ Alaska Commercial Fisheries Entry Commission. 2011. Alaska commercial fishing permits, permit holders, and vessel licenses, 2000 – 2010. Data compiled

by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.] ⁵ Totals only represent non-confidential data.

Year	Number of Halibut Ouota Share	Halibut Ouota	Halibut IFQ Allotment (Pounds)
	Account Holders	Shares Held	
2000	45	2,724,455	757,064
2001	44	2,465,830	753,512
2002	42	2,621,757	830,327
2003	44	2,791,611	879,503
2004	41	2,783,956	797,357
2005	41	2,612,005	631,310
2006	37	2,105,001	420,410
2007	32	1,849,800	314,272
2008	35	2,343,555	470,017
2009	35	2,460,922	493,758
2010	35	2,465,946	449,399

Table 6. Halibut Catch Share Program Participation by Residents of Sand Point: 2000-2010.

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 7. Sablefish Catch Share Program Participation by Residents of Sand Point: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (Pounds)
2000	2	23,102	2,089
2001	2	116,848	11,501
2002	1	300	32
2003	2	426,910	53,705
2004	2	426,910	61,225
2005	1	300	35
2006	1	300	35
2007	1	300	33
2008	1	300	32
2009	1	300	27
2010	1	300	25

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

Table 8. Bering Sea and Aleutian Island Crab Catch Share Program Participation byResidents of Sand Point: 2000-2010.

Year	Number of Crab Quota	Crab Quota Shares	Crab IFQ		
	Share Account Holders	Held	Allotment (Pounds)		
2005	2	253,569	1,517		
2006	2	253,569	1,280		
2007	2	253,569	1,680		
2008	2	253,569	1,679		
2009	3	416,719	8,320		
2010	3	4,097,380	142,125		

Source: National Marine Fisheries Service. 2011. Alaska Individual Fishing Quota (IFQ) permit data. NMFS Alaska Regional Office. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

					Total Net Lb	s ¹					
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab			0		0	0	0				0
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon			28,863,221		23,574,017	16,719,491	13,231,056				9,089,712
$Total^2$			28,863,221		23,574,017	16,719,491	13,231,056				9,089,712
Ex-vessel Value (nominal U.S. dollars)											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Crab			\$0		\$0	\$0	\$0				\$0
Finfish											
Halibut											
Herring											
Other Groundfish											
Other Shellfish											
Pacific Cod											
Pollock											
Sablefish											
Salmon			\$8,255,438		\$6,279,596	\$4,912,568	\$3,908,452				\$5,336,486
$T_{ota}l^2$			\$8,255,438		\$6,279,596	\$4,912,568	\$3,908,452				\$5,336,486

Table 9. Landed Pounds and Ex-vessel Revenue, by Species, in Sand Point: 2000-2010.

Note: Cells showing "–" indicate that the data are considered confidential.

Source: Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

¹ Net lbs refers to the landed weight recorded in fish tickets. ² Totals only represent non-confidential data.

Table 10. Landed Pounds and Ex-vessel Revenue, by Species, by Sand Point Residents: 2000-2010.

	Total Net Lbs ¹											
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Crab		108,862			213,310	299,278			302,446	317,012	395,817	
Finfish												
Halibut	777,100	763,731	858,088	736,557	615,387	538,937	475,544	389,799	573,309	460,167	445,000	
Herring	805,617	1,312,296		2,681,384								
Other Groundfish	140,818	680,345	230,665	150,814	140,123	383,623	442,280	593,727	488,092	377,286	1,269,800	
Other Shellfish					43,837	9,103	26,085	37,243	76,191	111,152	64,665	
Pacific Cod	16,945,958	9,924,303	12,294,708	15,566,806	11,296,767	9,208,541	6,775,190	6,100,615	10,743,364	6,870,095	12,386,041	
Pollock	17,867,765	34,732,559	18,527,921	15,633,226	24,083,884	25,995,991	17,672,451	15,683,692	14,555,894	13,590,457	20,330,562	
Sablefish		248										
Salmon	13,448,654	14,162,953	10,428,739	10,625,351	18,754,943	23,425,250	15,351,124	17,919,669	22,269,490	18,202,041	6,740,394	
$Total^2$	49,985,912	61,685,297	42,340,121	45,394,138	55,148,251	59,860,723	40,742,674	40,724,745	49,008,786	39,928,210	41,632,279	
Ex-vessel Value (nominal U.S. dollars)												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
Crab		\$201,992			\$561,498	\$484,761			\$599,050	\$473,891	\$616,674	
Finfish												
Halibut	\$1,987,899	\$1,511,047	\$1,726,029	\$2,101,899	\$1,759,422	\$1,576,750	\$1,722,896	\$1,598,566	\$2,408,705	\$1,223,436	\$1,993,777	
Herring	\$158,701	\$214,356		\$299,673								
Other Groundfish	\$11,185	\$14,658	\$10,189	\$5,079	\$3,103	\$17,814	\$9,246	\$9,606	\$12,996	\$10,761	\$31,806	
Other Shellfish					\$15,377	\$4,533	\$15,612	\$20,266	\$38,881	\$41,797	\$15,986	
Pacific Cod	\$5,156,260	\$2,271,348	\$2,620,802	\$4,192,678	\$2,654,980	\$2,349,188	\$2,512,910	\$2,853,454	\$6,093,535	\$1,728,923	\$3,068,679	
Pollock	\$2,286,447	\$3,988,594	\$1,981,817	\$1,663,685	\$2,304,807	\$2,844,016	\$2,173,080	\$1,889,187	\$2,712,007	\$2,237,366	\$2,694,182	
Sablefish		\$4										
Salmon	\$5,788,863	\$2,641,086	\$2,222,205	\$2,374,366	\$4,809,803	\$7,101,755	\$4,995,200	\$6,466,371	\$9,603,816	\$7,174,956	\$4,228,263	
$Total^2$	\$15,389,355	\$10,843,085	\$8,561,041	\$10,637,379	\$12,108,989	\$14,378,818	\$11,428,943	\$12,837,450	\$21,468,990	\$12,891,130	\$12,649,366	

Note: Cells showing "–" indicate that the data are considered confidential.

Source: Alaska Department of Fish and Game, and Alaska Commercial Fisheries Entry Commission. 2011. Alaska fish ticket data. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

¹ Net lbs refers to the landed weight recorded in fish tickets. ² Totals only represent non-confidential data.

Recreational Fishing

Based on available ADF&G sportfishing statistics, minimal sportfishing activity was reported in Sand Point between 2000 and 2010. One active sport fish guide business was registered in the community in 2002 only, while between two and four licensed sport fish guides were reported to be present from 2000 to 2004. No businesses or licensed guides were present from 2005 to 2010. In 2010, 71 sportfishing licenses were sold in the community of Sand Point, of which 56 licenses were purchased by community residents (Table 11). According to a representative of the Qagan Tayagungin Tribe, the low number of licenses purchased by residents underestimates the amount of sportfishing activity engaged in by residents of Sand Point. For example, a large number of youth in the community actively participate in sportfishing, and individuals under the age of 16 are not required to sportfishing in Sand Point, resulting in a lower total number of licenses purchased. The tribal representative anticipates that purchases of sportfishing licenses will increase as a local sportfishing derby continues to grow.⁶⁶

Sand Point is located within Alaska Sport Fishing Survey Area R – Alaska Peninsula / Aleutian Islands. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Between 2000 and 2010, sportfishing activity in this region varied considerably. For saltwater sportfishing, non-Alaska resident angler days fished varied between 1,603 and 4,126 during this period, while Alaska resident angler days fished varied between 3,261 and 12,721 days. Alaska resident anglers fished consistently more saltwater days than non-Alaska resident anglers during this period. In contrast, non-Alaska resident anglers fished more angler days in freshwater in the Alaska Peninsula / Aleutian Islands region on average (18,462 per year on average) than Alaska resident anglers (15,290 per year on average). This information about the sportfishing sector in and near Sand Point is also displayed in Table 11.

In a survey conducted by the AFSC in 2011, community leaders confirmed this by reporting that Chinook, coho, and sockeye salmon, halibut, crab, shrimp, and clams are targeted by recreational fishermen that use boats based in Sand Point. Community leaders also noted that some recreational fishing in Sand Point takes place on charter/party boats, private boats owned by local residents, and private boats owned by non-residents.

Year	Active Sport Fish Guide Businesses ¹	Sport Fish Guide Licenses ¹	Sport Fishing Licenses Sold to Residents ²	Sport Fishing Licenses Sold in Sand Point ²
2000	0	3	38	50
2001	0	3	44	66
2002	1	4	39	51
2003	0	4	33	38
2004	0	2	40	41
2005	0	0	55	75
2006	0	0	54	127
2007	0	0	62	78
2008	0	0	47	64
2009	0	0	54	46
2010	0	0	56	71

Table 11. Sport Fishing Trends, Sand Point: 2000-2010.

⁶⁶ Personal communication from a Qagan Tayagungin Tribal leader. Email sent Oct. 9 and received Oct. 17, 2013.

	Saltw	ater	Freshwater		
Year	Angler Days Fished – Non- residents ³	Angler Days Fished – Alaska Residents ³	Angler Days Fished – Non- residents ³	Angler Days Fished – Alaska Residents ³	
2000	1,664	8,870	17,749	27,227	
2001	1,760	3,939	16,840	14,350	
2002	4,126	5,210	15,865	18,417	
2003	1,603	4,333	16,557	11,878	
2004	1,948	12,721	18,813	19,360	
2005	3,585	5,129	14,130	12,038	
2006	2,809	4,392	22,323	8,830	
2007	2,588	9,356	20,371	15,870	
2008	3,436	4,298	21,797	10,207	
2009	3,488	3,815	18,996	16,020	
2010	2,036	3,261	19,643	13,992	

Table	11.	Cont.	Sport	Fishing	Trends.	Sand	Point:	2000-2010
1 4010	· · ,	00110	Spore	1 Ioning	11011000,	Nana	1 01110	2000 2010

¹ Alaska Department of Fish and Game. 2011. Alaska sport fish guide licenses and businesses, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

² Alaska Department of Fish and Game. 2011. Alaska sport fish and crew license holders, 2000 – 2010. ADF&G Division of Administrative Services. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. [URL not publicly available as some information is confidential.]

³ Alaska Department of Fish and Game. 2011. Alaska Sport Fishing Survey results, 2000 – 2010. ADF&G Division of Sport Fish, Alaska Statewide Harvest Survey project. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sf/sportfishingsurvey/ (Accessed September 2011).

Subsistence Fishing

According to a survey conducted by the AFSC in 2011, community leaders indicated that salmon, halibut, and crab are the three most important subsistence marine or aquatic resources to the residents of Sand Point. Data were not available from ADF&G regarding per capita subsistence harvest or the percentage of Sand Point households that utilized various marine resources for subsistence purposes between 2000 and 2010 (Table 12). Some data were available from management agencies, however, regarding total subsistence harvest numbers of salmon, halibut and some marine mammals. These data are presented below. However, it is important to note that, according to a representative of the Qagan Tayagungin Tribe, these subsistence data that are available from management agencies significantly underestimate the level of engagement of local residents in subsistence harvest; not all residents engaged in salmon and halibut subsistence harvest acquire subsistence permits, and even fewer return surveys.⁶⁷

Available data about annual subsistence salmon harvest show a decrease between 2000 and 2010 in the number of subsistence salmon permits issued, the number of those permits reported as fished, and the number of salmon harvested (Table 13). Available data regarding annual subsistence halibut fishing participation, based on participation in the Subsistence Halibut

⁶⁷ See footnote 66.

Registration Certificate (SHARC) program, show an overall increase between 2003 and 2007 in the number of SHARC cards issued and the number actively fished. The total lbs of halibut reported harvested was at its maximum in 2005, when 1,581,787 lbs were harvested on 5,941 active SHARC cards. The number of SHARC cards issued and actively fished declined subsequent to 2007, along with the lbs of halibut harvested per year (Table 14).

Finally, some information was reported by various management agencies regarding subsistence harvest of marine mammals by Sand Point residents between 2000 and 2010. According to available data provided by the U.S. Fish and Wildlife Service (FWS), between one and five sea otters were harvested (for those years in which data were reported). The FWS also reported harvest of one walrus by Sand Point residents in 2010 only. In addition, ADF&G reported Steller sea lion harvest ranging from 1 to 8 animals per year and harbor seal harvest ranging from 4 to 49 animals per year (for those years in which data were reported). No information was reported by NMFS regarding beluga whale harvest, and ADF&G did not report harvest of spotted seal by Sand Point residents between 2000 and 2010. This information about marine mammal harvest in Sand Point is presented in Table 15.

Although no information is available during the 2000-2010 period regarding total marine invertebrate and non-salmon fish harvest by Sand Point residents (Table 13), some species-level information is provided from a 1992 subsistence survey conducted by the ADF&G Division of Subsistence. Results of the survey indicate that the following species of marine invertebrates were used for subsistence in Sand Point in 1992: black (small) chitons, butter clams, cockles, Dungeness crab, hair crab, horse clams (gaper), king crab, limpets, mussels, octopus, Pacific littleneck clams (steamers), pinkneck clams, razor clams, red (large) chitons, scallops, sea cucumber, sea urchin, shrimp, snails, Tanner crab, and unknown crab. Non-salmon fish species reported as harvested for subsistence in 1992 included: black rockfish, brook trout, burbot, capelin (grunion), cutthroat trout, Dolly Varden, eel, eulachon (hooligan candlefish), greenling, herring, herring roe/unspecified, herring spawn on kelp, lingcod, mackerel, Pacific cod (gray), pike, rainbow smelt, rainbow trout, red rockfish, sablefish (black cod), sea perch, sheefish, skates, smelt, starry flounder, steelhead, unknown char, unknown cod, unknown flounder, unknown greenling, unknown rockfish, unknown sculpin, unknown smelt, unknown sole, unknown whitefish, walleye pollock, whitefish, and yellowfin sole. In addition, marine mammals reported as harvested for subsistence in 1992 included harbor seal, Steller sea lion, and unknown whale. 68

⁶⁸ Alaska Department of Fish and Game. 2011. *Community Subsistence Information System (CSIS)*. ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

Year	% Households Participating in Salmon Subsistence	% Households Participating in Halibut Subsistence	% Households Participating in Marine Mammal Subsistence	% Households Participating in Marine Invertebrate Subsistence	% Households Participating in Non-Salmon Fish Subsistence	Per Capita Subsistence Harvest (lbs)
2000	n/a	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	n/a	n/a	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a
2004	n/a	n/a	n/a	n/a	n/a	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	n/a	n/a	n/a	n/a	n/a
2007	n/a	n/a	n/a	n/a	n/a	n/a
2008	n/a	n/a	n/a	n/a	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a

Table 12. Subsistence Partici	pation by Household and S	pecies, Sand Point: 2000-2010
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Note: n/a indicates that no data were reported for that year.

Source: Alaska Department of Fish and Game. 2011. Community Subsistence Information System (CSIS). ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

Table 13. Subsistence Fishing Participation for Salmon, Marine Invertebrates, and Non-
Salmon Fish, Sand Point: 2000-2010.

Year	Subsistence Salmon Permits Issued ¹	Salmon Permits Returned ¹	Chinook Salmon Harvested ¹	Chum Salmon Harvested ¹	Coho Salmon Harvested ¹	Pink Salmon Harvested ¹	Sockeye Salmon Harvested ¹	Lbs of Marine Inverts ²	Lbs of Non- Salmon Fish ²
2000	62	49	296	919	647	674	4,282	n/a	n/a
2001	61	49	330	1,394	840	766	4,600	n/a	n/a
2002	31	24	102	1,000	283	375	2,019	n/a	n/a
2003	30	26	171	1,088	258	489	2,069	n/a	n/a
2004	24	22	92	385	147	359	1,813	n/a	n/a
2005	35	31	67	320	1,083	456	2,952	n/a	n/a
2006	30	26	51	261	165	447	1,557	n/a	n/a
2007	38	29	55	156	190	420	2,269	n/a	n/a
2008	46	35	63	406	683	1,001	2,003	n/a	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.

¹ Fall, J.A., C. Brown, N. Braem, J.J. Simon, W.E. Simeone, D.L. Holen, L. Naves, L. Hutchinson-Scarborough, T. Lemons, and T.M. Krieg. 2011, revised. Alaska subsistence salmon fisheries 2008 annual report. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 359, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

² Alaska Department of Fish and Game. 2011. Community Subsistence Information System (CSIS). ADF&G Division of Subsistence. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle. http://www.adfg.alaska.gov/sb/CSIS/ (Accessed February 2011).

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	73	21	4,819
2004	351	109	15,140
2005	321	100	21,417
2006	365	133	20,214
2007	364	138	24,615
2008	342	130	25,013
2009	137	70	11,759
2010	130	26	4,220

Table 14. Subsistence Halibut Fishing Participation, Sand Point: 2003-2010.

Note: n/a indicates that no data were reported for that year.

Source: Fall, J.A. and D. Koster. 2011. Subsistence harvests of Pacific halibut in Alaska, 2009. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 357, Anchorage. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

Table 15. Subsistence Harvests of Marine Mammal Resources, Sand Point: 2000-2010.

Year	# of Beluga Whales ¹	# of Sea Otters ²	# of Walrus ²	# of Polar Bears ²	# of Steller Sea Lions ³	# of Harbor Seals ³	# of Spotted Seals ³
2000	n/a	n/a	n/a	n/a	5	15	n/a
2001	n/a	2	n/a	n/a	5	11	n/a
2002	n/a	2	n/a	n/a	n/a	15	n/a
2003	n/a	4	n/a	n/a	1	14	n/a
2004	n/a	1	n/a	n/a	n/a	15	n/a
2005	n/a	n/a	n/a	n/a	n/a	15	n/a
2006	n/a	5	n/a	n/a	6	4	n/a
2007	n/a	5	n/a	n/a	8	49	n/a
2008	n/a	1	n/a	n/a	3	31	n/a
2009	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2010	n/a	n/a	1	n/a	n/a	n/a	n/a

Note: n/a indicates that no data were reported for that year.

¹ Frost, K.J., and R.S. Suydam. 2010. Subsistence harvest of beluga or white whales (*Delphinapterus leucas*) in northern and western Alaska, 1987–2006. J. Cetacean Res. Manage. 11(3): 293–299. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

² U.S. Fish and Wildlife Service. 2011. Marking, Tagging and Reporting Program data bases for northern sea otter, Pacific walrus and polar bear. Office of Marine Mammals Management. Anchorage, Alaska. Data compiled by Alaska Fisheries Information Network for Alaska Fisheries Science Center, Seattle.

³Wolfe, R.J., Fall, J.A. and M. Riedel. 2009. The subsistence harvest of harbor seals and sea lions by Alaska Natives in 2008. Alaska Native Harbor Seal Commission and Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 347, Anchorage.