

Cold Bay



People and Place

*Location*¹

Cold Bay is located in the Izembek National Wildlife Refuge (NWR) at the western end of the Alaska Peninsula. It lies 634 mi. southwest of Anchorage and 180 mi northeast of Unalaska. The area encompasses 54.4 sq mi of land and 16.6 sq mi of water. It was incorporated as a Second-class city in 1982 and is under the jurisdiction of the Aleutians East Borough.

*Demographic Profile*²

In 2010, there were 108 residents, ranking Cold Bay 240th of 352 Alaskan communities in terms of population size. Between 1990 and 2010, the population declined by 27%. Between 2000 and 2009, the population declined by 4.55% with an average annual growth rate of -3.31%, which was much lower than the statewide average of 0.75% and reflective of the steep decline following a population spike in 2002. In a survey conducted by the Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that there were an estimated 60 permanent residents living in Cold Bay in 2010. The community's population reaches its annual peak in September and is somewhat driven by employment in fishing sectors. Information regarding population trends can be found in Table 1.

The racial and ethnic composition of Cold Bay is relatively mixed, with the majority of residents (74.1%) identifying themselves as White in 2010, compared to 71.6% in 2000. Also in that year, 12.0% of residents identified themselves as American Indian or Alaska Native, compared to 17.0% in 2000; 1.9% identified themselves as Black or African American, compared to 3.4% in 2000; 1.9% identified themselves as Asian, compared to 4.5% in 2000; 9.3% identified themselves as two or more races, compared to 1.1% in 2000; and 0.9% identified themselves as some other race, compared to 0.0% in 2000. In addition, 4.6% of residents identified themselves as Hispanic or Latino in 2010, compared to 2.4% in 2000. Racial and ethnic composition remained somewhat unchanged between 2000 and 2010. Information regarding trends in race and ethnicity in Cold Bay can be found in Figure 1.

In 2010, the average household size was 2.33, compared to 2.7 in 1990 and 2.28 in 2000. In that year, there were 82 total housing units, compared to 73 in 1990 and 98 in 2000. Of the households surveyed in 2010, 6% were owner-occupied, compared to 3% in 2000; 50% were renter-occupied, compared to 34% in 2000; 7% were vacant, compared to 46% in 2000; and 37% were occupied seasonally, compared to 17% in 2000. In 2010 there was one person living in group quarters, compared to six in 2000.

¹ Alaska Department of Community 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>.

Gender distribution in Cold Bay was skewed in 2010 at 61.2% male and 38.8% female. This was significantly less even than the statewide distribution (52% male, 48% female), and slightly more even than the 2000 distribution (64.7% male, 35.3% female). The median age that year was 44.8 years, which was significantly older than the statewide median of 33.8 years and 2000 median of 34 years.

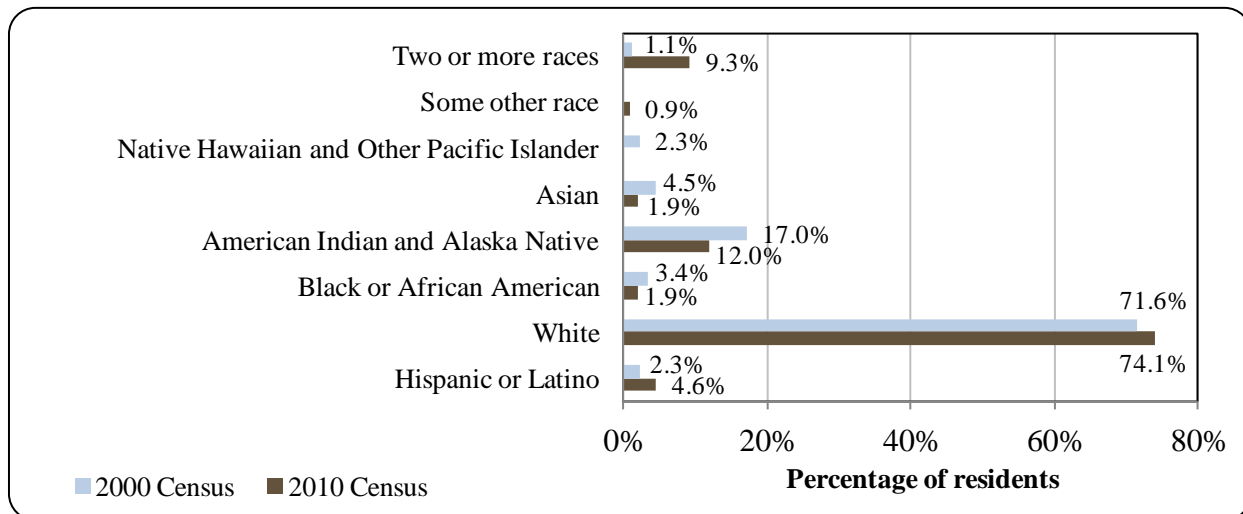
Table 1. Population in Cold Bay from 1990 to 2010 by Source.

Year	U.S. Decennial Census ¹	Alaska Department of Labor Estimate of Permanent Residents ²
1990	148	-
2000	88	-
2001	-	75
2002	-	117
2003	-	95
2004	-	89
2005	-	89
2006	-	87
2007	-	72
2008	-	89
2009	-	84
2010	108	-

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://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>.

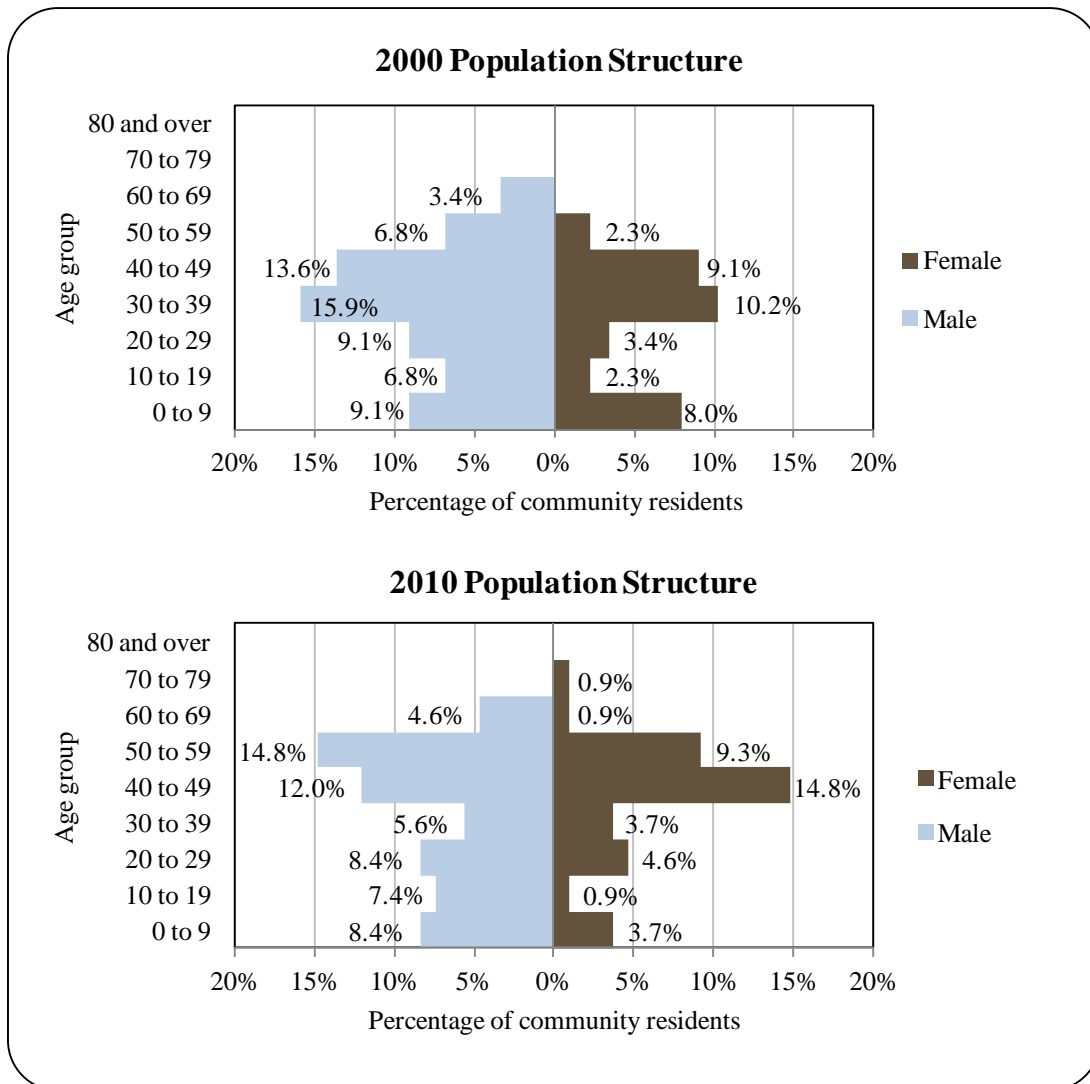
Figure 1. Racial and Ethnic Composition, Cold Bay: 2000-2010 (U.S. Census).



The population structure in 2010 was slightly more constricted than it was in 2000 as the population aged. In that year, 20.4% of residents were under the age of 20, compared to 26.2% in 2000; 6.4% were over the age of 59, compared to 3.4% in 2000; 60.7% were between the ages of 30 and 59, compared to 57.9% in 2000; and 13.0% were between the ages of 20 and 29, compared to 12.5% in 2000.

Overall gender distribution by age cohort was about the same in both 2000 and 2010. In 2010, the greatest absolute gender difference occurred within the 10 to 19 range (7.4% male, 0.9% female), followed by the 50 to 59 (14.8% male, 9.3% female) and 0 to 9 (8.4% male, 3.7% female) ranges. Of those three, the greatest relative gender difference occurred within the 10 to 19 range. Information regarding trends in Cold Bay’s population structure can be found in Figure 2.

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



In terms of educational attainment, the U.S. Census' 2006-2010 American Community Survey (ACS)³ estimated that 100% of residents aged 25 years and higher held a high school diploma or higher degree in 2010, compared to an estimated 90.7% of Alaska residents overall. In this same time period, an estimated 25% had some college but no degree, compared to an estimated 28.3% of Alaska residents overall; and estimated 20% had an Associate's degree, compared to an estimated 8% of Alaska residents overall; and an estimated 35% of residents had a Bachelor's degree, compared to an estimated 17.4% of Alaska residents overall. No residents were estimated to hold a graduate or professional degree between 2000 and 2010.

History, Traditional Knowledge, and Culture

Archaeological sites dating to the last ice age indicate the area around Cold Bay was once inhabited by a large Eastern Aleut population.⁴ Additional archaeological data indicates that the first inhabitants of the area may have arrived approximately 6,000 years ago. The first historic record of the area is from 1827, when the Russian captain Count Feodor Petrovich Lutke named the largest lagoon to the north of Cold Bay after his surgeon, Karl Izembek. Additional features in the area were also named after crew aboard the Russian sloop "Moller," including Moffet Lagoon and Cape Glazenap. During World War II, the U.S. military established a base at Cold Bay, staffing it with 40,000 soldiers during its lifetime. At its peak, Cold Bay was home to approximately 9,000 military personnel (although estimates have gone as high as 60,000). By 1942, the base supported military aircraft, communications equipment, and other facilities. The military facilities were abandoned in 1950; however, the U.S. Air Force did maintain a presence in support of a Distant Early Warning Station built at Grant Point in 1958. In that year, the Federal Aviation Administration (FAA) established facilities at Outer Marker Road, and the remainder of the military land was transferred to the FAA and Bureau of Land Management (BLM) in 1961. The Izembek NWR was established in 1960 and the Izembek State Game Refuge in 1971.⁵

Natural Resources and Environment

The community has a maritime climate, with temperatures ranging from 25 to 60 °F (-4 to 16 °C). The average annual rainfall is 36 inches, and average annual snowfall is 55 inches. Wind speeds of 30 mph are common for Cold Bay.⁶

Cold Bay resides in the Izembek NWR, which was designated a Globally Important Bird Area in 2001.⁷ The local surface geology consists primarily of glacial outwash and alluvium consistent with coastal plains in the region. The lagoons to the north of Cold Bay are thought to

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 Alaskan communities with small populations that have a low probability of being adequately sampled.

⁴ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

⁵ Alaska Department of Fish and Game. (2010). *Izembek State Game Refuge Management Plan*. Retrieved February 16, 2012 from: http://www.adfg.alaska.gov/static/lands/protectedareas/_management_plans/izembek_plan.pdf.

⁶ See footnote 4.

⁷ U.S. Fish and Wildlife Service. (n.d.). *Izembek National Wildlife Refuge*. Retrieved February 16, 2012 from: <http://izembek.fws.gov/wildland.htm>.

have formed by emerging coastlines formed from tectonic activity, wind, and offshore currents. Lowland areas are commonly made up of volcanic ash, unconsolidated sands, silts, and gravel. Upland soils mostly consist of volcanic ash. Organic soils consist of sedge peat and moss.⁸ Vegetation is limited due to unproductive shallow or poorly drained soils. Vegetation types are consistent with low shrub tundra, wetlands, and moist herbaceous meadows. There are scattered alder stands in mid-slope areas east of Cold Bay.⁹ Terrestrial wildlife present in the area include brown bears, caribou, moose, wolverine, red foxes, river otters, wolves, mink, porcupine, hares, shrews, voles, lemmings, mice, and ground squirrels. Local fish include all five species of Pacific salmon, Arctic char, Dolly Varden, stickleback, steelhead trout, Pacific sand lance, yellowfin sole, sculpin, turbot, smelt, greenling, cod, whitefish, and herring. Marine mammals present in the area include sea otters, northern fur seals, walrus, harbor seals, mink whales, killer whales, gray whales, and Steller sea lions. There are also approximately 80 species of birds that frequent the area as well.¹⁰

Localized mineral resources include titanium sands, iron, and gold concentrations in the Moffet Lagoon and Moffet Point areas. However, mineral prospecting in the Izembek NWR is advised against. In addition, the 2005 Bristol Bay Area Plan designated tidelands adjacent to the Izembek NWR off-limits to new mineral prospects. Uplands are closed to mining or mineral entry under federal law and currently development can only be approved offshore. Cold Bay is located close to oil and gas exploration areas of interest, although of the 26 test wells drilled around the Alaska Peninsula between 1902 and 1985, none produced commercially viable quantities of either. However, there are several coal bed methane sites which could prove viable in the future.¹¹

Cold Bay is susceptible to natural hazards including earthquakes, volcanoes, tsunamis, and severe weather events. According to the *Aleutians East Multi-Jurisdictional, Multi-Hazards Mitigation Plan*, damage from an earthquake, volcanic eruption, or tsunami would be critical with a projected 25% of critical facilities damaged or destroyed. Severe weather events could result in limited damage, and would not likely result in severe casualties or extensive damage to infrastructure. There is a high probability of an earthquake or volcanic event occurring, while the probability of a tsunami or severe weather event is moderate.¹²

The Alaska Department of Environmental Conservation is in the process of cleaning up contaminants left from the now defunct Fort Randall. During World War II, the military base was consistently supplied with 4,000 to 5,000 fifty-five gal drums containing heating oil, lubricants, solvents, pesticides, and volatile fuels. In 1998, 2,138 buried drums were removed from a disposal area, and in 2001 approximately 4,760 cubic yards of contaminated soil were treated and backfilled. Other cleanup projects in the area include asphalt seeps and underground fuel tank leaks near the airport.¹³

⁸ See footnote 5.

⁹ U.S. Fish and Wildlife Service. (2004). *Impact Analysis of Off-Road Vehicle Use for Subsistence Purposes on Refuge Land and Resources Adjacent to the King Cove Access Project*. Retrieved February 16, 2012 from: <http://izembek.fws.gov/pdf/impanalysis.pdf>.

¹⁰ See footnote 5.

¹¹ Ibid.

¹² 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>.

¹³ Alaska Department of Environmental Conservation. (n.d.). *Contaminated Sites Program*. Retrieved February 16, 2012 from: <http://www.dec.state.ak.us/spar/csp/sites/coldbayftr.htm>.

Current Economy¹⁴

Cold Bay's local economy is complex and tied to the region as a whole. Although a federal presence has been reduced greatly following the closing of Fort Randall, the state owned airstrip remains an active resupply and emergency stop for air traffic crossing the Pacific Ocean. The deep water port has the potential to be developed into a regional center as well. The Izembek NWR provides recreational opportunities for bird and hunting enthusiasts, and tourism is a top development priority in Cold Bay. Finally, Cold Bay is part of a commercial fishing network connecting King Cove, Sand Point, and False Pass. However, in a survey conducted by the AFSC in 2011, community leaders reported that there is not a fishing industry in Cold Bay. There have been efforts towards economic diversification in the region following the Bristol Bay commercial salmon crash of the late 1990s, and because of the city's past reliance on federal employment.¹⁵ Top employers in 2010¹⁶ included Peninsula Airways, State of Alaska, City of Cold Bay, Aleutians East Borough School District, G&K Inc., Eastern Aleutian Tribes Inc., Frosty Fuels LLC, CK Enterprises LLC, and Aleutians East Borough.

In 2010,¹⁷ the estimated per capita income was \$26,136 and the estimated median household income was \$44,167, compared to \$20,037 and \$55,750 in 2000, respectively. However, after accounting for inflation by converting the 2000 values to 2010 dollars,¹⁸ the real per capita income (\$26,358) and real median household income (\$73,310) indicate that while individual earnings remained relatively unchanged, household earnings decreased significantly. In 2010, Cold Bay ranked 94th of 305 Alaskan communities from which per capita income was estimated, but only 166th of 299 Alaskan communities for from which median household income was estimated.

Cold Bay's small population size may have prevented the ACS from accurately portraying economic conditions.¹⁹ Another 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 (DOLWD). According to the ALARI database, residents earned \$1.48 million in total wages in 2010.²⁰ When matched with the population in 2010, the per capita income equals \$13,720, which is significantly less than the 2010 ACS estimate, suggesting that caution should be used when comparing 2010 ACS and 2000 Census figures.²¹ It should be noted that ALARI and Census income figures are based on wage earnings and do not take into account the value of subsistence to the community.

¹⁴ Unless otherwise noted, all monetary data are reported in nominal values.

¹⁵ Stadum Group. (1999). *Overall Economic Development Plan*. Retrieved February 16, 2012 from: <http://www.commerce.state.ak.us/dca/plans/Cold%20Bay-VP-1999.pdf>.

¹⁶ Alaska Department of Labor (n.d.). *Alaska Local and Regional Information Network*. Retrieved January 20, 2012 from: <http://live.laborstats.alaska.gov/alari/>.

¹⁷ U.S. Census American Community Survey 2006-10 Estimates.

¹⁸ Inflation was calculated using the Anchorage Consumer Price Index for 2000 and 2010 (retrieved January 5, 2012 from the Alaska Department of Labor, <http://labor.alaska.gov/research/cpi/inflationcalc.htm>).

¹⁹ See footnote 3.

²⁰ ALARI estimates based on wages reported for unemployment insurance purposes. Estimates do not include self-employed or federally employed residents.

²¹ See footnote 16.

According to 2006 to 2010 estimates,²² 65% of residents aged 16 years or older were part of the civilian labor force in 2010. In that year, unemployment was estimated at 0.0%, compared to 5.9% statewide; and an estimated 8.3% of residents were living below the poverty line, compared to 9.5% statewide. Because of Cold Bay's small population size, it is possible that the 2010 ACS misrepresented local unemployment. The 2010 ALARI database estimated that, based on unemployment insurance claimants, the unemployment rate was 8.3%.²³

Of those employed in 2010, an estimated 61.5% worked in the public sector, while an estimated 38.5% worked in the private sector. By industry, most (53.8%) were estimated to be working in public administration sectors in that year; followed by wholesale trade sectors (23.1%), transportation, warehousing, and utilities sectors (15.4%), and professional, scientific, management, administrative, and waste management sectors (7.7%). By occupation type, most (38.5%) were estimated hold sales or office positions, followed by management or professional positions (30.8%), natural resource, transportation, or material moving positions (15.4%), and service positions (15.4%). Overall, the 2006-10 ACS purported a strong shift towards public administration and wholesale trade sectors between 2000 and 2010. However, it should be noted that sampling techniques may not have captured the true scope of industry representation. This may account for the apparent reduction in economic diversity in those years. According to 2010 ALARI estimates, most (26.8%) employed residents worked in trade, transportation, and utilities sectors; followed by local government sectors (26.8%); and state government sectors (12.2%). Information regarding employment trends can be found in Figures 3 and 4.

No individuals characterized themselves as working in natural resource based industries that include fishing. However, given the data reported in the *Commercial Fishing* section below, the number of individuals employed in the farming, fishing, and forestry industries may be underestimated by census statistics as fishermen may hold another job and characterize their employment accordingly.

²² See footnote 3.

²³ See footnote 16.

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

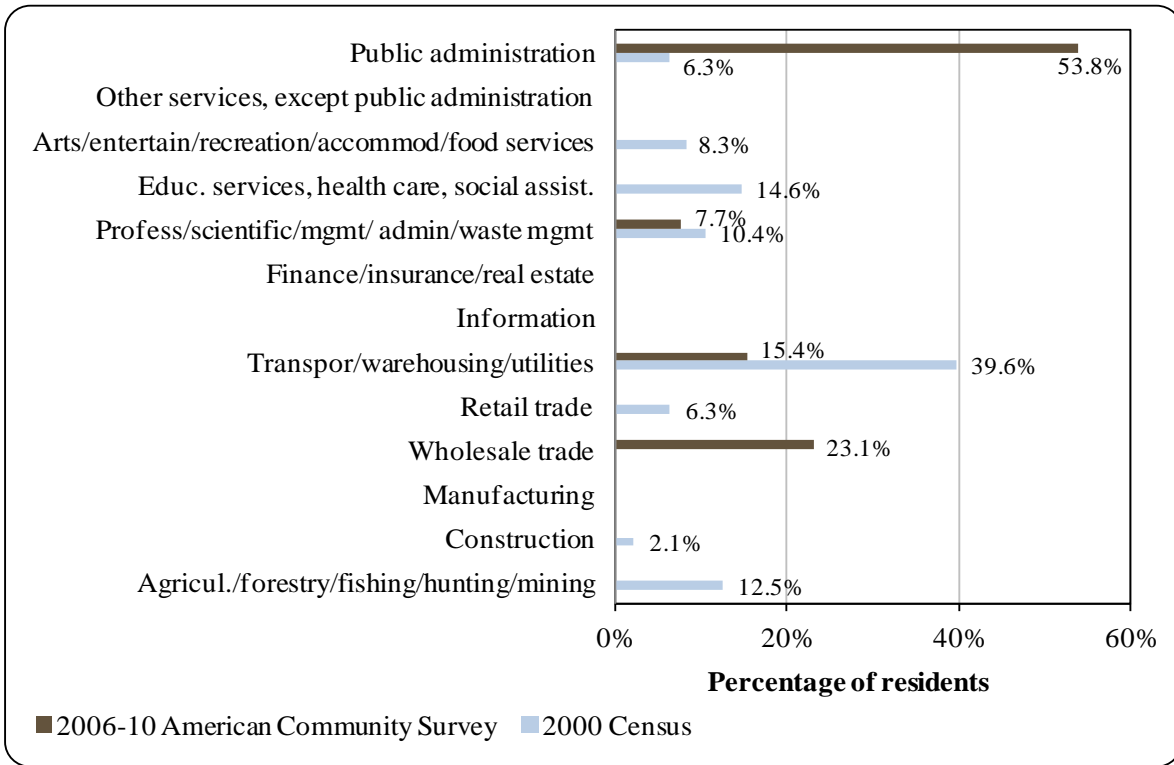
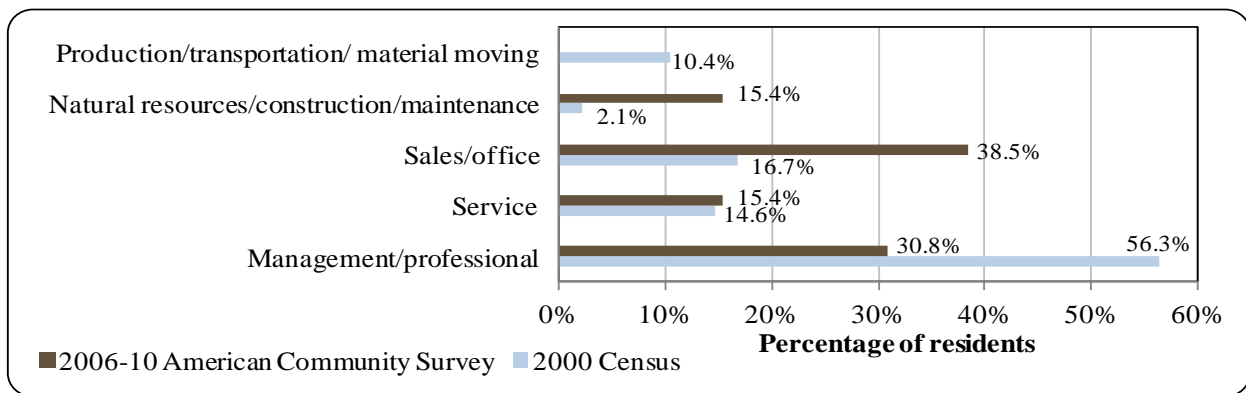


Figure 4. Local employment by occupation in 2000-2010, Cold Bay (U.S. Census).



Governance

Cold Bay is a Second-class city with a mayoral form of government. The community was not included in the Alaskan Native Claims Settlement Act (ANCSA) and does not have a federally recognized Tribal government. The closest National Marine Fisheries Service (NMFS) and U.S. Bureau of Citizenship and Immigration Services (BCIS) offices are located in Unalaska, 179 mi southwest. There is a seasonally operated Alaska Department of Fish and Game (ADF&G) office located in the community, which is open during summer months. The closest permanent ADF&G office is located in Sand Point, 90 mi to the east.

Taxes administered by the city in 2010 included a 10% accommodations tax and \$0.04 per gallon fuel tax. The borough administers a 2% raw fish tax. When adjusted for inflation,²⁴ total municipal revenues increased 100.2% between 2000 and 2010 from \$248,547 to \$643,343. In 2010, most locally generated revenues were collected from utilities rents and local tax revenues. In addition, \$171,324 was collected that year from insurance reimbursements for dock repairs. Most outside revenues were generated from Community Revenue Sharing and raw fish tax refunds. In that year, Cold Bay received \$100,591 in state allocated Community Revenue Sharing, which accounted for 15.6% of the municipal budget. This was a proportional increase from 2000, when \$29,470 in State Revenue Sharing accounted for 11.9% of the municipal budget. Fisheries-related state and federal grants received by the City included a \$26,316 for a state matching grant for the city dock and \$25,000 for construction of dockside electrical utilities. Information regarding municipal finances can be found in Table 2.

Table 2. Selected Municipal, State, or Federal Revenue Streams for the Community of Cold Bay 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	\$248,547	n/a	\$29,470	\$51,316
2001	\$259,540	n/a	n/a	n/a
2002	\$439,345	n/a	\$26,000	n/a
2003	\$603,171	n/a	\$28,500	n/a
2004	\$358,583	n/a	-	n/a
2005	\$349,769	n/a	-	n/a
2006	\$395,600	n/a	-	n/a
2007	\$418,382	n/a	-	n/a
2008	\$662,862	n/a	-	n/a
2009	\$607,546	n/a	\$99,711	n/a
2010	\$643,343	n/a	\$100,591	n/a

¹ Alaska Department of Community and Rural Affairs. (n.d.). *Financial Documents Delivery System*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm.

² Alaska Department of Community and Economic Development. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

³ Alaska Department of Revenue. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Retrieved April 15, 2011 from <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.

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

²⁴ Inflation calculated using the 2010 Anchorage CPI from the Alaska Department of Labor: <http://labor.alaska.gov/research/cpi/cpi.htm>.

Infrastructure

Connectivity and Transportation

A state-owned 10,415-ft long by 150-ft wide paved and lighted runway with a 6,235-ft long by 150-ft wide paved crosswind runway, an FAA flight service station, and a seaplane base are available. Cold Bay is a regional transportation center and provides scheduled flights to surrounding communities. The community has a dock but wants to develop a breakwater, boat harbor, and boat launch. Marine cargo services are available monthly from Seattle, but not from Anchorage. The state ferry operates bi-monthly from Kodiak to Cold Bay between May and October. There are approximately 40 mi. of local gravel roads.²⁵ In 2009, a new Public Lands Bill was signed into law that could allow for the construction of an access road connecting Cold Bay and King Cove in exchange for expansions of the Izembek NWR.²⁶ The price for roundtrip airfare between Cold Bay and Anchorage in June 2012 was \$831.²⁷

Facilities

Water is supplied to the community by one well and stored in a 213,000-gal tank. Most residents are connected to a piped water and sewer system. A few homes have individual wells and septic systems. The sewage treatment plant can process up to 45,000 gal a day. Residents transport their own refuse to the landfill, located 1.5 mi north of the community.²⁸ In a survey conducted by the AFSC in 2011, community leaders reported that infrastructure projects completed since 2000 or under development include a fish cleaning station, dockside electrical and water utilities, dock improvements, broadband internet access, road improvements, water treatment facilities, landfill improvements, community center improvements, school improvements, telephone service, and post office improvements. There is 650 ft of dock space for transient moorage; however, there is no space available for permanent moorage. Vessels up to 320 ft long can use moorage in Cold Bay. Cold Bay facilities can accommodate the following Coast Guard regulated vessels, rescue vessels, cruise ships, ferries, and fuel barges. The community currently lacks a harbor or breakwater, although there are plans for future development. Fisheries-related businesses and services located in the community include fishing gear sales, small vessel (less than 60 tons) haulout facilities, tackle sales, recreational fishing vessel moorage, bait sales, fish lodges, and boat fuel sales. Residents of Cold Bay typically go to Unalaska, King Cove, and Sandpoint for fisheries-related services and businesses that are not available locally. Public services available in the community include medical services and a public library. Visitor accommodations include the Cold Bay Lodge, Bayview Bed and Breakfast, and the Bearfoot Inn. Public safety services are provided by local State Troopers. Fire and rescue services are provided by the Alaska Department of Transportation and Cold Bay Fire and Rescue.²⁹

²⁵ Alaska Department of Community and Rural Affairs. (n.d.). *Community Database Online*. Retrieved October 17, 2011 from http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm.

²⁶ Aleutians East Borough. (n.d.). Retrieved February 17, 2012 from: http://www.aleutianseast.org/index.asp?Type=B_BASIC&SEC={F01C70F6-028E-4181-83DD-90BC0F27E9FE}.

²⁷ Airfare was calculated using lowest fare from www.orbitz.com. (Retrieved November 22, 2011).

²⁸ See footnote 25.

²⁹ Ibid.

*Medical Services*³⁰

Anna Livingston Memorial Clinic provides general healthcare and is a Community Health Aid Program site. Nearby King Cove Medical Clinic is a qualified Emergency Care Center.

*Educational Opportunities*³¹

Cold Bay School offers preschool through twelfth grade instruction. As of 2011, there were 13 students enrolled and two teachers.

Involvement in North Pacific Fisheries

History and Evolution of Fisheries

Previous to Alaska's purchase in 1867, American schooners were fishing for cod in the Aleutian Islands and Okhotsk Sea regions. By the end of the nineteenth century, salmon canneries were being established in western Alaska and on the eastern portion of the Alaska Peninsula. No large-scale commercial seafood processing operation was undertaken in the Aleutian area during those years however. In 1916, Pacific American Fisheries, Inc. established a cannery at Makushin Bay, Unalaska. In those days, adverse weather conditions typically kept the small seine fleet close to Unalaska and Umnak islands. Following the 1924 White Act, newly protected fisheries began to proliferate throughout the Aleutian region. The implementation of a 1928 Executive Order removed Akun, Akutan, Tigalda, Umnak, and Unalaska Islands from an earlier established wildlife reserve, opening up further opportunities. The International Packing Company fished the Aleutian area between 1924 and 1942 and operated a floating processor in the regional through 1941. Pink, sockeye, and chum salmon were popular species.³²

Popular commercial fisheries within the Bering Sea and Aleutian Islands Management Area include red king crab, snow crab, walleye pollock, golden king crab, Tanner crab, weathervane scallops, Dungeness crab, Pacific cod, flatfish, sablefish, Pacific salmon, Pacific herring, and halibut. Aerial surveys of Pacific herring biomass began in the Alaska Peninsula and Aleutian Islands region in 1979, when large congregations of herring were documented in coastal waters between Adak and Port Heiden. No herring sac roe harvests have occurred within the Aleutian Islands region due to lack of interest. Herring food and bait fisheries began in the Eastern Aleutian Islands area in 1929, occurring intermittently until 1981, when a Dutch Harbor food and bait fishery began operating annually. In 2004, an exploratory herring fishery was established in the vicinity of Adak Island. This fishery has attracted very little interest, and no harvests have occurred since it was established.³³

³⁰ Ibid.

³¹ Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

³² Atkinson, C.E. (n.d.). A Brief Review of the Salmon Fishery in the Aleutian Islands Region. Retrieved May 20, 2012 from: [http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20\(Atkinson\).pdf](http://www.npafc.org/new/inpfc/INPFC%20Bulletin/Bull%20No.1/Bull1%20p93-104%20(Atkinson).pdf).

³³ Bernard, A. C. (2011). *Alaska Peninsula-Aleutian Islands Management Area Herring Sc Roe and Food and Bait Fisheries: Annual Management Report 2010*. Alaska Department of Fish and Game. Fishery Management Report No. 11-06. Retrieved February 4, 2013 from: <http://www.adfg.alaska.gov/FedAidPDFs/FMR11-06.pdf>.

Groundfish were first commercially harvested in the Bering Sea and Aleutian Islands (BSAI) region in 1864, when a single schooner fished for Pacific cod in the Bering Sea. Most fishing effort during the early cod fishery was concentrated north of Unimak Island and the Alaska Peninsula. Pacific halibut was commercially harvested within the region as early as the late 1800s as well; however, halibut did not reach North American markets until 1928. Foreign fleets had a large presence within the BSAI region throughout much of the twentieth century, targeting pollock, sablefish, turbot, perch, and other groundfish. Foreign fleets were phased out during the 1980s as fishing fleets became increasingly “Americanized.” Today, walleye pollock is the largest groundfish fishery in the BSAI region in terms of lbs landed and ex-vessel value. Pacific cod is the second largest fishery, followed by various flatfish including arrowtooth flounder, rock sole, and yellowfin sole. Other important commercial species include sablefish, rockfish, and Atka mackerel.³⁴

Cold Bay’s history is associated with its establishment as a military base; therefore, there was very little historical participation in North Pacific Fisheries. The community’s efforts to diversify its economy following the closure of the military base included commercial fishing as residents began participating in salmon, halibut, and groundfish fisheries. However, in a survey conducted by the AFSC in 2011, community leaders reported that no commercial fishing vessels use Cold Bay as a base of operations during fishing seasons and most residents likely fish out of King Cove. In addition, the community does not participate actively in the fisheries management process in Alaska. In 2010, Cold Bay became eligible for participation in the Community Quota Entity program. However, it has not yet formed a non-profit entity eligible to purchase quota shares. The impetus for the CQE program followed the implementation of the halibut and sablefish Individual Fishing Quota (IFQ) program in 1995. The IFQ program restructured fixed gear halibut and sablefish fisheries into a catch share program which issued transferable quota shares that allocated and apportionment of the annual Total Allowable Catch to eligible vessels and processors. Although the IFQ program resulted in many benefits to fishermen, processors, and support businesses, and unintended consequence was that many quota holders in smaller Alaskan communities either transferred quota outside the community or moved out themselves. In addition, as quota became increasingly valuable, entry into halibut or sablefish fisheries became difficult. In many cases, it was more profitable for small-scale operators to sell or lease their quota rather than fish it due to low profit margins and high quota value. These factors lead decreased participation in communities traditionally dependent on the halibut or sablefish fisheries. To address this issue, the North Pacific Fishery Management Council implemented the CQE program in 2005. Under the program, eligible communities could form a non-profit corporation to purchase and manage quota share on their behalf.

Cold Bay is located in Federal Reporting Area 610, International Pacific Halibut Commission (IPHC) Regulatory Area 3B, and the Western Gulf of Alaska (GOA) Sablefish Regulatory District.

Processing Plants

According to ADF&G’s 2010 Intent to Operate list, Cold Bay does not have a registered processing plant. The closest seafood processor is located in King Cove.

³⁴ North Pacific Fishery Management Council. (2012). *Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area*. Retrieved February 4, 2013 from: <http://alaskafisheries.noaa.gov/npfmc/PDFdocuments/fmp/BSAI/BSAI.pdf>.

Fisheries-Related Revenue

The majority of Cold Bay's fisheries-related revenue comes from port and dock usage fees. Revenues from this source increased steadily from \$6,000 in 2000 to \$34,000 in 2010. Other sources of fisheries-related revenue come from a Shared Fisheries Business Tax and Fisheries Resource Landings Tax. In 2010, the community received \$56,153 in fisheries-related taxes and fees, compared to \$21,433 in 2000. In a survey conducted by the AFSC in 2011, community leaders reported that revenue raised by fisheries-related taxes and fees goes towards port infrastructure projects and maintenance. Information regarding fisheries-related revenue trends can be found in Table 3.

It should be noted that 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.

Commercial Fishing

In 2010, 2 residents, or 1.9% of the population, held 4 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). In 2000, 3 residents held 3 CFEC permits. Of the CFEC permits held that year, 50% were for salmon, compared to 100% in 2000; 25% were for groundfish, compared to 0% in 2000; and 25% were for halibut, compared to 0% in 2000. Also in that year, 2 residents held 2 License Limitation Program (LLP) groundfish permits. No residents held Federal Fisheries Permits (FFP) between 2000 and 2010. Residents held 64,445 shares of halibut quota on 1 account between 2006 and 2010. No residents held sablefish or crab quota share between 2010 and when the programs began.

In 2010, 6 residents held commercial crew licenses, compared to 1 in 2000. In addition, residents held majority ownership of 3 vessels, compared 6 in 2000. Of the CFEC permits held that year, 75% were actively fished, compared to 100% in 2000. This varied by fishery from 100% of groundfish and halibut permits, to 50% of salmon permits. Fisheries prosecuted by residents in 2010 included Alaska Peninsula set gillnet salmon, Gulf of Alaska longline miscellaneous saltwater finfish and statewide longline halibut.³⁵

No landings were reported in the community between 2000 and 2010, although landings were reported by residents. Those landings are considered confidential with the exception of salmon landings in 2001. In that year, residents landed 161,948 lbs of salmon valued at \$79,835 ex-vessel, which amounts to approximately \$0.70 per pound ex-vessel after accounting for inflation³⁶ and without taking species composition into consideration. In a survey conducted by the AFSC in 2011, community leaders reported that an average halibut season lasted July through November, an average coho or sockeye salmon season runs from August through September. Information regarding commercial fisheries trends can be found in Tables 4 through 10.

³⁵ 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.]

³⁶ Inflation calculated using Producer Price Index for unprocessed and packaged fish, Bureau of Labor Statistics. Retrieved March 15, 2011 from <http://www.bls.gov/ppi/#data>.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Shared Fisheries Business Tax ¹	\$15,433	\$10,863	\$8,027	\$7,028	\$8,056	\$9,569	\$10,498	\$11,969	\$9,508	\$11,827	\$11,734
Fisheries Resource Landing Tax ¹	n/a	n/a	n/a	\$14	\$854	\$629	\$1,468	\$1,001	\$2,538	\$1,731	\$2,813
Fuel transfer tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Extraterritorial fish tax ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bulk fuel transfers ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage ²	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	\$7,606*
Port/dock usage ²	\$6,000	n/a	\$2,500	\$15,000	\$22,200	\$33,000	\$33,000	\$33,000	\$35,000	\$18,375	\$34,000
Fishing gear storage on public land ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Marine fuel sales tax ³	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Total fisheries-related revenue⁴	\$21,433	\$10,863	\$10,527	\$22,042	\$31,110	\$43,198	\$44,966	\$45,971	\$47,046	\$31,933	\$56,153
Total municipal revenue⁵	\$248,547	\$259,540	\$439,345	\$603,171	\$358,583	\$349,769	\$395,600	\$418,382	\$662,862	\$607,549	\$643,343

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

*Source: Alaska Fisheries Science Center 2011 Community Surveys.

¹ Alaska Department of Community and Economic Development. (n.d.) *Alaska Taxable (2000-2010)*. Retrieved April 15, 2011 from http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm.

² Alaska Department of Community 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 Department of Community 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.

NOAA-TM-AFSC-259 – Volume 6
Community Profiles for North Pacific Fisheries – Alaska: Cold Bay

Table 4. Permits and Permit Holders by Species, Cold Bay: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) ¹	Total permits	1	1	1	1	1	1	2	2	2	2	2
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	Total permit holders	1	1	1	1	1	1	2	2	2	2	2
Crab (LLP) ¹	Total permits	0	0	0	0	0	0	0	0	0	0	0
	Active permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits ¹	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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Other shellfish (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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Halibut (CFEC) ²	Total permits	0	1	0	0	1	1	1	1	1	1	1
	Fished permits	0	1	0	0	1	1	1	1	1	1	1
	% of permits fished	n/a	100%	n/a	n/a	100%	100%	100%	100%	100%	100%	100%
	Total permit holders	0	1	0	0	1	1	1	1	1	1	1
Herring (CFEC) ²	Total permits	0	0	0	0	1	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	n/a	n/a	n/a	n/a	0%	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	1	0	0	0	0	0	0

Table 4 cont'd. Permits and Permit Holders by Species, Cold Bay: 2000-2010.

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) ²	Total permits	0	1	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	n/a	0%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	1	0	0	0	0	0	0	0	0	0
Groundfish (CFEC) ²	Total permits	0	2	0	0	4	1	0	1	1	1	1
	Fished permits	0	0	0	0	2	0	0	0	0	0	1
	% of permits fished	n/a	0%	n/a	n/a	50%	0%	n/a	0%	0%	0%	100%
	Total permit holders	0	1	0	0	1	1	0	1	1	1	1
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	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Salmon (CFEC) ²	Total permits	3	4	3	3	4	4	4	4	2	3	2
	Fished permits	3	4	3	3	3	3	2	2	1	1	1
	% of permits fished	100%	100%	100%	100%	75%	75%	50%	50%	50%	33%	50%
	Total permit holders	3	4	3	3	4	4	4	3	2	3	2
<i>Total CFEC Permits²</i>	<i>Permits</i>	<i>3</i>	<i>8</i>	<i>3</i>	<i>3</i>	<i>10</i>	<i>6</i>	<i>5</i>	<i>6</i>	<i>4</i>	<i>5</i>	<i>4</i>
	<i>Fished permits</i>	<i>3</i>	<i>5</i>	<i>3</i>	<i>3</i>	<i>6</i>	<i>4</i>	<i>3</i>	<i>3</i>	<i>2</i>	<i>2</i>	<i>3</i>
	<i>% of permits fished</i>	<i>100%</i>	<i>63%</i>	<i>100%</i>	<i>100%</i>	<i>60%</i>	<i>67%</i>	<i>60%</i>	<i>50%</i>	<i>50%</i>	<i>40%</i>	<i>75%</i>
	<i>Permit holders</i>	<i>3</i>	<i>4</i>	<i>3</i>	<i>3</i>	<i>4</i>	<i>4</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>3</i>	<i>2</i>

¹ National 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.]

Table 5. Characteristics of the Commercial Fishing Sector in Cold Bay: 2000-2010.

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 Cold Bay ²	Total Net Lbs Landed In Cold Bay ^{2,5}	Total Ex-Vessel Value Of Landings In Cold Bay ^{2,5}
2000	1	0	0	6	3	0	0	\$0
2001	1	0	0	4	0	0	0	\$0
2002	2	0	0	3	0	0	0	\$0
2003	4	0	0	2	0	0	0	\$0
2004	11	0	0	2	0	0	0	\$0
2005	8	0	0	5	1	0	0	\$0
2006	6	0	0	3	0	0	0	\$0
2007	4	0	0	4	2	0	0	\$0
2008	4	0	0	3	2	0	0	\$0
2009	3	0	0	4	2	0	0	\$0
2010	6	0	0	3	2	0	0	\$0

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.

Table 6. Halibut Catch Share Program Participation by Residents of Cold Bay: 2000-2010.

Year	Number of Halibut Quota Share Account Holders	Halibut Quota Shares Held	Halibut IFQ Allotment (pounds)
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	1	64,445	12,898
2007	1	64,445	10,962
2008	1	64,445	12,959
2009	1	64,445	12,959
2010	1	64,445	11,770

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 Cold Bay: 2000-2010.

Year	Number of Sablefish Quota Share Account Holders	Sablefish Quota Shares Held	Sablefish IFQ Allotment (pounds)
2000	0	0	0
2001	0	0	0
2002	0	0	0
2003	0	0	0
2004	0	0	0
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

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 by Residents of Cold Bay: 2000-2010.

Year	Number of Crab Quota Share Account Holders	Crab Quota Shares Held	Crab IFQ Allotment (pounds)
2005	0	0	0
2006	0	0	0
2007	0	0	0
2008	0	0	0
2009	0	0	0
2010	0	0	0

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 9. Landed Pounds and Ex-vessel Revenue, by Species, in Cold Bay: 2000-2010.

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	0	0	0	0	0	0	0	0	0	0	0
Finfish	0	0	0	0	0	0	0	0	0	0	0
Halibut	0	0	0	0	0	0	0	0	0	0	0
Herring	0	0	0	0	0	0	0	0	0	0	0
Other Groundfish	0	0	0	0	0	0	0	0	0	0	0
Other Shellfish	0	0	0	0	0	0	0	0	0	0	0
Pacific Cod	0	0	0	0	0	0	0	0	0	0	0
Pollock	0	0	0	0	0	0	0	0	0	0	0
Sablefish	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0
<i>Total²</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Finfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Halibut	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Herring	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Groundfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Other Shellfish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pacific Cod	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pollock	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sablefish	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Salmon	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<i>Total²</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>	<i>\$0</i>

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 Cold Bay Residents: 2000-2010.

	<i>Total Net Pounds¹</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	161,948	--	--	--	--	--	--	--	--	--
<i>Total²</i>	--	<i>161,948</i>	--	--	--	--	--	--	--	--	--
	<i>Ex-vessel Value (nominal U.S. dollars)</i>										
	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>
Crab	--	--	--	--	--	--	--	--	--	--	--
Finfish	--	--	--	--	--	--	--	--	--	--	--
Halibut	--	--	--	--	--	--	--	--	--	--	--
Herring	--	--	--	--	--	--	--	--	--	--	--
Other Groundfish	--	--	--	--	--	--	--	--	--	--	--
Other Shellfish	--	--	--	--	--	--	--	--	--	--	--
Pacific Cod	--	--	--	--	--	--	--	--	--	--	--
Pollock	--	--	--	--	--	--	--	--	--	--	--
Sablefish	--	--	--	--	--	--	--	--	--	--	--
Salmon	--	\$79,835	--	--	--	--	--	--	--	--	--
<i>Total²</i>	--	<i>\$79,835</i>	--	--	--	--	--	--	--	--	--

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

Recreational fishing has been growing in popularity in Cold Bay as the Izembek NWR continues to draw a diverse range of visitors to the region. While the community's remote location makes travel to Cold Bay costly, the port is capable of handling cruise ships, which visit periodically. In 2010, ADF&G reported there were no active sport fish guide businesses registered within the community, although the Cold Bay Lodge does advertize sportfishing services.³⁷ Between 2000 and 2010, between 2 and 3 sport fish guide licenses were held in Cold Bay, with the exception of 2008 when only 1 was held. In 2010, residents were sold 62 sportfishing licenses, compared to 57 in 2000; and 72 sportfishing licenses were sold in the community, compared to 82 in 2000. Sportfishing license sales within the community peaked in 2002 at 121.

Cold Bay is located within the Alaska Peninsula and Aleutian Islands ADF&G Harvest Survey Area which includes all Alaskan waters, including drainages, between Cape Douglas and the community of Naknek. In 2010, overall angler days fished totaled 5,297 for saltwater fisheries, compared to 10,534 in 2000; and 33,635 for freshwater fisheries, compared to 44,976 in 2000. In that year, non-Alaska residents accounted for 38.4% of saltwater and 58.4% of freshwater angler days fished, compared to 15.8% and 39.5% in 2000, respectively. According to ADF&G Harvest Survey data, private anglers in Cold Bay target coho, sockeye, pink, and chum salmon, Dolly Varden char, halibut, lingcod, and Pacific cod. There is no kept/released charter information available for Cold Bay. In a survey conducted by the AFSC in 2011, community leaders reported that local recreational anglers on private boats typically target coho and sockeye salmon, and halibut. Information regarding sportfishing trends can be found in Table 11.

Subsistence Fishing

Cold Bay is federally designated as rural, and therefore eligible for subsistence harvesting on federal lands. While there is a grocer available in town, subsistence resources are still relied upon as supplies are limited. In a survey conducted by the AFSC in 2011, community leaders reported that residents rely on halibut, salmon, and waterfowl mostly for subsistence. Subsistence participation data is limited, and information on household participation is unavailable. According to species documented by ADF&G, sockeye salmon are harvested the most by residents, followed by coho, chum, pink, and Chinook salmon (Table 13). In 2008, 489 total salmon were reported harvested, compared to 630 reported in 2000. In 2010, 35 residents were issued Subsistence Halibut Registration Certificates (SHARC), compared to 18 in 2003. In that year, 3,760 lbs of halibut were reported harvested, compared to 2,265 reported in 2003. Reported halibut harvests peaked in 2010. In terms of subsistence marine mammal harvest, sea otters were the only species reported in ADF&G records. In 2007, 5 sea otters were reported harvested, compared to 1 reported in 2000. A total of 9 sea otters have been reported harvested between 2000 and 2010. No data are available regarding Steller sea lion, harbor seal, and spotted seal harvests. Information regarding subsistence trends can be found in Tables 12 through 15.

³⁷ Cold Bay Lodge. (n.d.). *Homepage*. Retrieved February 17, 2012 from: <http://coldbaylodge.com/default.aspx>.

Table 11. Sport Fishing Trends, Cold Bay: 2000-2010.

Year	Active Sport Fish Guide Businesses ¹	Sport Fish Guide Licenses ¹	Sport Fishing Licenses Sold to Residents ²	Sport Fishing Licenses Sold in Cold Bay ²
2000	1	2	57	82
2001	1	2	48	101
2002	1	2	61	121
2003	2	3	52	108
2004	2	3	50	68
2005	1	2	52	88
2006	0	2	54	84
2007	1	2	59	98
2008	1	1	50	89
2009	2	2	58	82
2010	0	3	62	72

Year	Saltwater		Freshwater	
	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

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).

Table 12. Subsistence Participation by Household and Species, Cold Bay: 2000-2010.

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 (Pounds)
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

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, Cold Bay: 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	16	16	n/a	26	50	1	553	n/a	n/a
2001	17	16	n/a	n/a	27	n/a	597	n/a	n/a
2002	21	20	n/a	15	n/a	n/a	497	n/a	n/a
2003	20	15	n/a	13	n/a	1	593	n/a	n/a
2004	24	24	5	23	35	n/a	729	n/a	n/a
2005	29	29	6	2	158	6	501	n/a	n/a
2006	30	26	n/a	25	25	7	601	n/a	n/a
2007	31	27	n/a	2	151	n/a	552	n/a	n/a
2008	29	23	n/a	18	n/a	16	455	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).

Table 14. Subsistence Halibut Fishing Participation, Cold Bay: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	18	13	2,265
2004	17	13	2,711
2005	24	14	2,772
2006	23	17	3,341
2007	28	16	2,060
2008	26	13	1,737
2009	24	15	2,996
2010	35	17	3,760

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, Cold Bay: 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	1	n/a	n/a	n/a	n/a	n/a
2001	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2002	n/a	2	n/a	n/a	n/a	n/a	n/a
2003	n/a	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	n/a
2005	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2006	n/a	1	n/a	n/a	n/a	n/a	n/a
2007	n/a	5	n/a	n/a	n/a	n/a	n/a
2008	n/a	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	n/a
2010	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 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.

³ Wolfe, 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.