

## **Manokotak (*man-noh-KOH-tuck*)**



### **People and Place**

#### *Location*

Manokotak is situated on the Igushik River, the outlet of the Ualik and Amanka lake system, which empties into Nushagak Bay before entering Bristol Bay. The community is 25 miles southwest of Dillingham and 347 miles southwest of Anchorage. Manokotak is located in the Dillingham Census Area and Bristol Bay Recording District. The City of Manokotak encompasses 36.4 square miles of land and 0.9 square miles of water.<sup>1,2</sup>

#### *Demographic Profile*<sup>3</sup>

In 2010, there were 442 residents in Manokotak, making it the 129<sup>th</sup> largest of 352 Alaskan communities with recorded populations that year, and the 4<sup>th</sup> most populated village in the Dillingham Census Area. Overall between 1990 and 2010, the population of Manokotak increased by 15%. According to Alaska Department of Labor estimates, between 2000 and 2009, the population of permanent residents increased by 9.8%. The average annual growth rate during this period was 1.2%, indicating a slow steady upward trend in population. In 2010, the majority of the population of Manokotak identified themselves as American Indian and Alaska Native (94.7%), while 4.8% identified as White, 0.3% as Black, and 0.3% identified with two or more races. The percentage of the population made up of individuals identifying as White increased slightly between 1990 and 2000, from 4.4% to 4.7%, and then declined by 2010 to 3.6%. The change in population from 1990 to 2010 is provided in Table 1 below, and changes in racial and ethnic composition from 2000 to 2010 are shown in Figure 1.

In 2010, the average household size in Manokotak was 3.65, a decline from 4.29 persons per household in 2000, but an overall increase from 3 persons per household in 1990. The number of households in Manokotak has increased over time, from 90 households in 1990 to 93 in 2000, and 121 in 2010. Of the 138 housing units surveyed for the 2010 Decennial Census, 68.1% were owner-occupied, 19.6% were rented, and 12.3% were vacant or used only seasonally. Between 1990 and 2010, no residents of Manokotak lived in group quarters.

---

<sup>1</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>2</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.

<sup>3</sup> 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>.

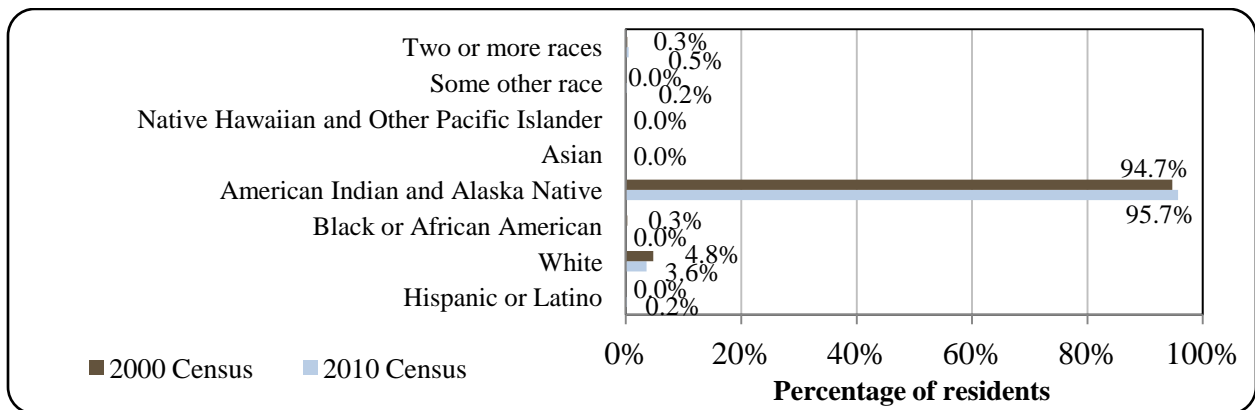
Table 1. Population in Manokotak from 1990 to 2010 by Source.

Year	U.S. Decennial Census <sup>1</sup>	Alaska Dept. of Labor Estimate of Permanent Residents <sup>2</sup>
1990	385	-
2000	399	-
2001	-	412
2002	-	407
2003	-	405
2004	-	407
2005	-	438
2006	-	424
2007	-	430
2008	-	429
2009	-	438
2010	442	-

<sup>1</sup> (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>.

<sup>2</sup> 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, Manokotak: 2000-2010 (U.S. Census).

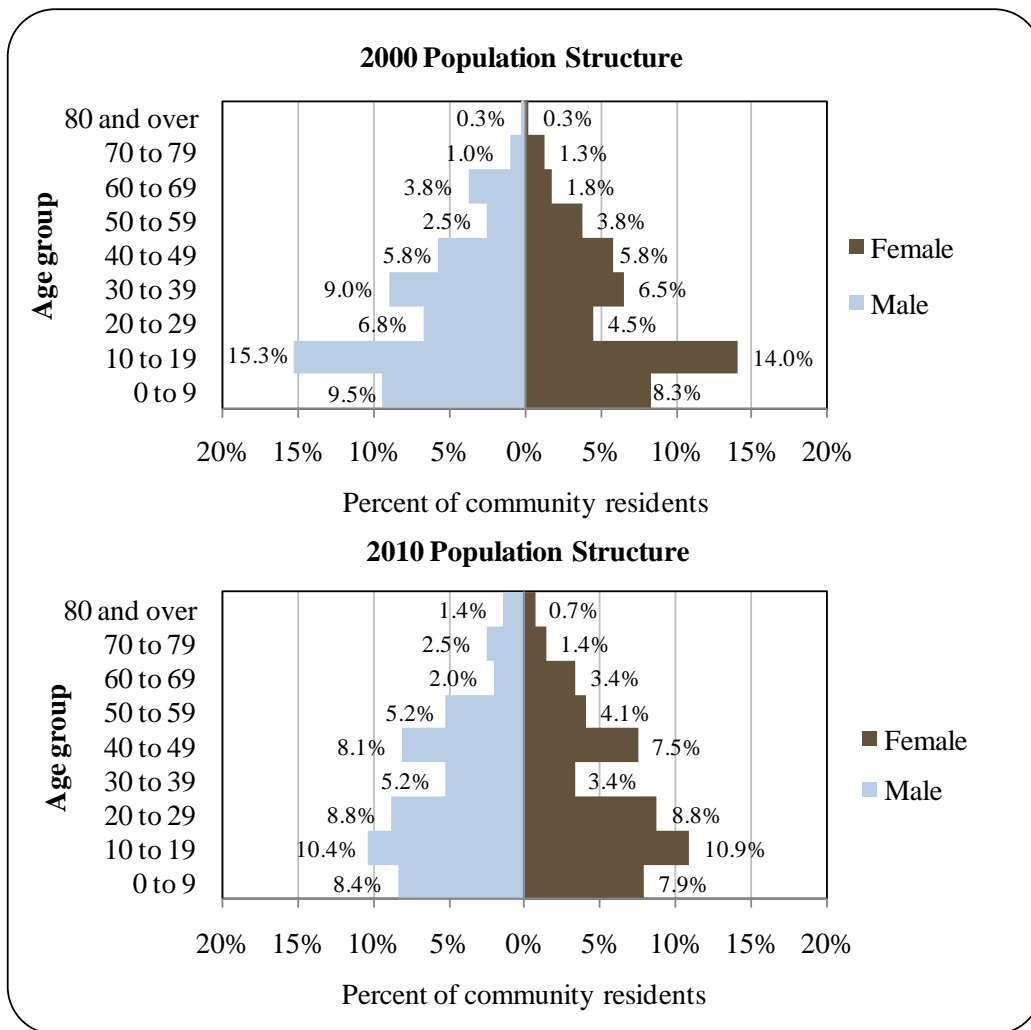


In a survey conducted by NOAA’s Alaska Fisheries Science Center (AFSC) in 2011, community leaders reported that the population of Manokotak reaches its peak during fall, winter and spring months, between August and May. They estimated that 15 seasonal workers or transients are present in the community during this period. They said population fluctuations are somewhat driven by employment in the commercial fishing sector. The City of Manokotak’s Comprehensive Plan also states that a majority of residents leave during the summer to travel to

fish camps in Iguishik or Ekuk,<sup>4</sup> suggesting that subsistence harvest is a key factor influencing population fluctuation.

In 2010, the gender makeup of Manokotak’s population was the same as the makeup of the state population as a whole, with 52% male and 48% female. The median age of Manokotak residents was 26.4 years, much younger than the national average of 36.8 years and the median age for Alaska, 33.8 years. In 2010, there was a relatively even spread of males and females across age categories in Manokotak. That year, 11% of Manokotak’s population was 60 or older. The overall population structure of Manokotak in 2000 and 2010 is shown in Figure 2.

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



<sup>4</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.

In terms of educational attainment, according to 2006-2010 American Community Survey (ACS) estimates,<sup>5</sup> 61.4% of Manokotak residents aged 25 and over were estimated to hold a high school diploma or higher degree in 2010, compared to 90.7% of Alaska residents overall. Also in 2010, 32.4% of the population was estimated to have less than a 9<sup>th</sup> grade education, compared to 3.5% of Alaska residents overall; 6.3% were estimated to have a 9<sup>th</sup> to 12<sup>th</sup> grade education but no diploma, compared to 5.8% of Alaska residents overall; 16.9% were estimated to have some college but no degree, compared to 28.3% of Alaska residents overall; 3.4% were estimated to have an Associate's degree, compared to 8% of Alaska residents overall; 5.8% were estimated to have a Bachelor's degree, compared to 17.4% of Alaska residents overall; and 0% were estimated to have a graduate or professional degree, compared to 9.6% of Alaska residents overall.

### *History, Traditional Knowledge, and Culture*

The community of Manokotak is a Yup'ik Eskimo village. It is one of the newer villages in the Bristol Bay region, having become a permanent settlement between 1946 and 1947. The original residents came from the consolidation of the Villages of Igushik and Tuklung, along with some from Kulukak, Togiak, and Aleknagik.<sup>6</sup> The original impetus for the formation of the new village was the arrival and settlement of Evon Minista, a Yup'ik Eskimo from the local region who settled at the site to be closer to his commercial fishing grounds.<sup>7</sup> Others came to the site of the new village from the surrounding countryside to join Minista. Moravian missionaries also followed, establishing the first church in Manokotak in 1948.<sup>8</sup> The first school started in 1949, conducted in the church building, and by 1959 a separate school had been built. In 1960 a U.S. post office was established in Manokotak. Trapping opportunities initially attracted residents, although resources have declined in the area since the 1960s. In 1970 the City was incorporated. Manokotak residents use Igushik as a summer fish camp. Today, the Village of Manokotak remains primarily a Yup'ik community with a lifestyle that includes fishing, trapping, and subsistence. The sale, importation, and possession of alcohol are all banned in the Village.<sup>9</sup>

### **Natural Resources and Environment**

Manokotak is located in a climatic transition zone; it is primarily influenced by the maritime climate, but also by arctic climate patterns. Summer temperatures average between 40 and 70 °F, and winter temperatures between 4 and 30 °F. Manokotak receives 25.5 inches of rain

---

<sup>5</sup> 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.

<sup>6</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>7</sup> Schichnes, J., and M. Chythlook (1988). *Use of Fish and Wildlife in Manokotak, Alaska*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 152, Anchorage, pg. 19-20. Retrieved November 29, 2011 from <http://www.subsistence.adfg.state.ak.us>.

<sup>8</sup> Harrison, B. (1986). Monokotak: A Study of School Adaptation. *Anthropology & Education Quarterly*. 17 (1986):100-110.

<sup>9</sup> See footnote 6.

and 83 inches of snow on average per year. Fog and high winds are common throughout the year. The river is ice-free from June through mid-November.<sup>10,11</sup>

According to a survey conducted by the AFSC in 2011, community leaders reported that fishing is the primary natural resource-based industry upon which the local economy depends. Bristol Bay drainages produce the world's largest runs of sockeye salmon, and the area is productive for other species of salmon and marine fish as well.<sup>12</sup> One of the largest runs of Chinook salmon in Alaska returns to the Nushagak River, but the run is not heavily harvested, partially due to low prices in the region.<sup>13</sup> The largest aggregation of herring in Alaska spawns along the northern shore of Bristol Bay, southwest of Manokotak near the Village of Togiak.<sup>14</sup>

Significant mineral resources are present in the Bristol Bay region, including the Pebble copper-gold-molybdenum deposit west of Manokotak. The Pebble Mine site is located at the divide between the Koktuli River and Uppler Talarik Creek, north of Iliamna Lake.<sup>15</sup> Northern Dynasty Minerals Limited calls the Pebble deposit, "one of the greatest stores of mineral wealth ever discovered," and estimates that the deposit includes 5.94 billion tons in the measured and indicated category, including 55 billion lb of copper, 66.9 million oz of gold, and 3.3 billion lb of molybdenum, and 4.84 billion tons in the inferred category, including 25.6 billion lb of copper, 40.4 million oz gold, and 2.3 billion lb of molybdenum.<sup>16</sup> Concern has been raised about the possible effects of acid mine drainage from development of the Pebble deposit on salmon. Iliamna Lake is the source of the Kvichak River System, the single most important salmon-producing watershed in the Bristol Bay area.<sup>17</sup> According to the Pebble Partnership, 95% of the metal that would be produced by the Pebble mine is copper. Dissolved copper is known to be toxic to fish.<sup>18</sup> If the Pebble Mine is developed, Bristol Bay salmon fisheries could be affected.<sup>19</sup>

The Nushagak Peninsula has modest potential for shallow development of oil and gas, as well as coalbed methane. Reserves of oil and natural gas are also thought to be present on the outer continental shelf in the Bristol Bay Basin, which runs along the northern edge of the Aleutian Islands and Alaska Peninsula.<sup>20</sup> However, given the importance of Bristol Bay fisheries to the nation and the proximity of the Bristol Bay Basin to a number of protected areas, in March 2010 Secretary of the Interior Ken Salazar removed the area from oil and gas leasing for the

---

<sup>10</sup> Ibid.

<sup>11</sup> Rainfall and snowfall numbers retrieved November 28, 2011 from [www.weatherbase.com](http://www.weatherbase.com).

<sup>12</sup> Alaska Department of Natural Resources (2005). *Bristol Bay Area Plan for State Lands*. Retrieved January 4, 2012 from <http://dnr.alaska.gov/mlw/planning/areaplans/bristol/index.htm>.

<sup>13</sup> 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>.

<sup>14</sup> 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>.

<sup>15</sup> Parker, Geoffrey Y., Francis M. Raskin, Carol Ann Woody, and Lance Trasky (2008). Pebble Mine: Fish, Minerals, and Testing the Limits of Alaska's Large Mine Permitting Process. *Alaska Law Review* 25:1.

<sup>16</sup> Northern Dynasty Minerals Limited website (2012). *The Pebble Deposit*. Retrieved January 13, 2012 from <http://www.northerndynastyminerals.com/ndm/Pebble.asp>.

<sup>17</sup> See footnote 12.

<sup>18</sup> See footnote 15.

<sup>19</sup> Pg. 36 in Duffield, John., Christopher Neher, David A. Patterson, and Oliver S. Goldsmith (2007). *Economics of Wild Salmon Ecosystems: Bristol Bay, Alaska*. USDA Forest Service Proceedings RMRS-P-49. Retrieved December 21, 2011 from [http://www.fs.fed.us/rm/pubs/rmrs\\_p049/rmrs\\_p049\\_035\\_044.pdf](http://www.fs.fed.us/rm/pubs/rmrs_p049/rmrs_p049_035_044.pdf).

<sup>20</sup> See footnote 12.

2007-2012 program.<sup>21</sup> On March 31, 2010, President Obama withdrew the Bristol Bay area of the North Aleutian Basin from oil and gas leasing, whether for exploratory or production purposes, through 2017.<sup>22</sup>

Wood-Tilchik State Park lies just north of Manokotak. Wood-Tilchik is the largest state park in the United States. The park includes a diversity of terrain and ecosystems. The Wood River and Tilchik River systems host all five species of Pacific salmon, along with rainbow trout, grayling, lake trout, Arctic char, Dolly Varden char, and northern pike. Tilchik Lake is an important site for whitefish subsistence harvest. Moose, caribou, and brown bear are common in the park, along with black bear in limited area of the park. Small game present in the area include beaver, muskrat, otter, fox, wolverine, mink, and porcupine. Ground squirrels and marmots are abundant, along with a variety of resident and migratory waterfowl and land birds.<sup>23</sup>

It is important to note that the Manokotak area provides important habitat for beluga whales. The mouth of the Igushik River is used by the whales as a calving ground.<sup>24</sup>

The Alaska Department of Environmental Conservation did not list active environmental cleanup sites located in Manokotak as of May 2012.<sup>25</sup> However, Manokotak participates in the Environmental Protection Agency-funded Indian General Assistance Program (IGAP). The program is managed through the Bristol Bay Native Association (BBNA), a regional non-profit organization headquartered in Dillingham (see the *Governance* section for more information). Through the IGAP program, several environmental concerns have been identified in the community, including poor air quality from dusty unpaved roads in summer and fall, noise pollution from snow machines and ATVs, fuel spills, the importance of protecting subsistence sites near the Village, dilapidated buildings that present safety hazards, the need for a new landfill, and the need for an upgraded water and sewer system.<sup>26</sup> In the 2011 AFSC survey, community leaders indicated that a new landfill and improved sewer and water system are currently in progress.

According to the Bristol Bay Coastal Management Plan, the Manokotak area is at risk of earthquakes and volcanic activity, landslides and avalanches, flooding and erosion, storm surges, and sea ice. A majority of earthquake activity takes place to the south of the Alaska Peninsula, in the Aleutian Trench. As a result, communities located on the south side of the Peninsula are more vulnerable to tsunamis than communities inside the Bay. Soils in Bristol Bay are made up largely of glacial till left behind in moraines, and depending on slope, saturation, loading, or earthquake activity, these soils have a potential to slide. Floods are a potential hazard on almost every river in the Bristol Bay region. They can be caused by spring snowmelt and breakup, river ice jams, and heavy rainfall. Coastal flooding and erosion is affected by wind, site exposure and sea ice conditions. The Coastal Management Plan notes the potential for climate change to

---

<sup>21</sup> U.S. Dept. of the Interior, Minerals Management Service (2010). *Preliminary Revised Program Outer Continental Shelf Oil and Gas Leasing Program 2007-2012*. Retrieved January 6, 2012 from <http://www.boemre.gov/5-year/PDFs/PRP2007-2012.pdf>.

<sup>22</sup> The White House, Office of the Press Secretary (2010). *Memorandum for the Secretary of the Interior: Withdrawal of Certain Areas of the United States Continental Shelf from Leasing Disposition*. Retrieved January 6, 2012 from <http://www.doi.gov/whatwedo/energy/ocs/upload/2010alaska-mem-rel.pdf>.

<sup>23</sup> Alaska Dept. of Natural Resources (n.d.) *Wood-Tilchik State Park website*. Retrieved December 6, 2011 from <http://dnr.alaska.gov/parks/units/woodtik.htm>.

<sup>24</sup> See footnote 12.

<sup>25</sup> Alaska Dept. of Environmental Conservation (n.d.). *List of Contaminated Sites*. Retrieved April 17, 2012 from <http://dec.alaska.gov/spar/csp/list.htm>.

<sup>26</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.

augment erosion, as coastal areas of Alaska are freezing later in the season, resulting in greater vulnerability to fall storms and storm surges. Changing temperatures also have the potential to shift distribution of fish and wildlife, possibly affecting commercial and subsistence activities.<sup>27</sup>

## Current Economy<sup>28</sup>

The economy of Manokotak depends for the most part on commercial fishing, trapping, and subsistence activities.<sup>29</sup> Between 2000 and 2010, the number of residents holding state Commercial Fisheries Entry Permits (CFEC) was equivalent to an average of 24.6% of the local population (see *Commercial Fishing* section). Residents also rely heavily on subsistence, in part due to limited opportunities for year-round cash employment. Many move to fish camps in Igushik or Ekuk each summer. Important subsistence resources include salmon, herring, sea lion, beluga whale, trout, ptarmigan, ducks, and berries. Many residents also trap fox, beaver, mink, and otter. Sharing relationships exist with several villages in the area, especially with the Villages of Togiak and Twin Hills.<sup>30,31</sup>

The government provides a majority of wage employment in the area.<sup>32</sup> In addition to the City and Village Council, top employers in Manokotak in 2010 included the local village Native corporation, the Bristol Bay Native Association, the regional school system, Manokotak Power Company, Bristol Bay Area Health Corporation, Bristol Bay Area Housing Authority, and several home care service companies.<sup>33</sup>

Based on household surveys conducted for the 2006-2010 ACS,<sup>34</sup> in 2010, the per capita income in Manokotak was estimated to be \$11,459, and the median household income was estimated to be \$32,500. This represents a slight increase from the per capita and median household incomes reported in the year 2000 (\$9,294 and \$26,875, respectively). However, after accounting for inflation by converting the 2000 values to 2010 dollars,<sup>35</sup> the real median per capita income in 2000 is revealed to have been \$12,221, and the real median household income was \$35,340, showing that real earnings actually decreased slightly over the period. In 2010, Manokotak ranked 249<sup>th</sup> of 305 Alaskan communities with per capita income data that year, and 232<sup>nd</sup> in median household income, out of 299 Alaskan communities with household income data.

---

<sup>27</sup> Glenn Gray and Associates (2008). *Bristol Bay Coastal Resource Service Area Coastal Management Plan*. Retrieved February 7, 2012 from [http://alaskacoast.state.ak.us/District/DistrictPlans\\_Final/BBCRSA/BB\\_Final\\_Plan\\_Amendment.pdf](http://alaskacoast.state.ak.us/District/DistrictPlans_Final/BBCRSA/BB_Final_Plan_Amendment.pdf).

<sup>28</sup> Unless otherwise noted, all monetary data are reported in nominal values.

<sup>29</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>30</sup> Ibid.

<sup>31</sup> See footnote 26.

<sup>32</sup> See footnote 29.

<sup>33</sup> 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/>.

<sup>34</sup> 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>.

<sup>35</sup> 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>).

Manokotak's small population size may have prevented the ACS from accurately portraying economic conditions.<sup>36</sup> A potentially more accurate understanding of per capita income is obtained from economic data compiled by the Alaska Local and Regional Information (ALARI) database maintained by the Alaska Department of Labor and Workforce Development (DOLWD). If total wages reported in the ALARI database for 2010 are divided by the 2010 population reported by the U.S. Census, the resulting per capita income estimate for Manokotak in 2010 is \$5,681,<sup>37</sup> which indicates an overall decrease compared to the real per capita income values reported by the U.S. Census in 2000. This decline in income is reflected in the fact that the community was recognized as “distressed” by the Denali Commission, indicating that over 70% of residents aged 16 and older earned less than \$16,120 in 2010.<sup>38</sup> It is important to note that both ACS and DOLWD data are based on wage earnings, and do not take into account the value of subsistence within the local economy.

Based on the 2006-2010 ACS, in 2010, a lower percentage of Manokotak residents was estimated to be in the civilian labor force (40.9%) than in the civilian labor force statewide (68.8%). In the same year, approximately 25.5% of local residents were estimated to be living below the poverty line, compared to a 9.5% of Alaska residents overall, and the unemployment rate was estimated to be 14.1%, compared to a statewide unemployment rate of 5.9%. An alternative estimate of unemployment is based on the ALARI database, which indicates that the 2010 unemployment rate in Manokotak was 20.7%, compared to a statewide unemployment rate estimate of 11.5%.<sup>39</sup> The lack of cash employment opportunities and the predominance of seasonal employment and traditional subsistence lifestyle contribute to a higher percentage of Manokotak residents not participating in the labor force.<sup>40</sup>

Also based on the 2006-2010 ACS, the greatest number of Manokotak workers was estimated to be employed in the public sector (56.9%), with 34.7% in the private sector, and 8.3% estimated to work as unpaid family workers. Of the 72 people aged 16 and over that were estimated to be employed in the civilian labor force, the majority was estimated to work in educational services, health care, and social assistance (59.7%). The occupations in which the greatest percentages of the workforce were estimated to be employed were service (33.3%) and management, business, science, and arts occupations (31.9%). It is important to note that, although four people (5.6% of of the civilian labor force) was estimated to be employed in natural resource/construction/maintenance occupations, a breakdown of this category reveals that two of these workers were employed in construction and extraction occupations, and two were employed in installation, maintenance, and repair activities. None were employed in farming, fishing, and forestry occupations. Likewise, 0% of the civilian labor force was estimated to be employed in agriculture agriculture, forestry, and fishing industries in 2010. The number of individuals employed by fishing may be underestimated in census statistics; fishermen may hold another job and characterize their employment accordingly. Further information about

---

<sup>36</sup> 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

<sup>37</sup> See footnotes 33 and 34.

<sup>38</sup> Denali Commission (2011). *Distressed Community Criteria 2011 Update*. Retrieved April 16, 2012 from [www.denali.gov](http://www.denali.gov).

<sup>39</sup> See footnote 33.

<sup>40</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.



employment by industry is presented in Figure 3, and employment is broken down by occupation in Figure 4.

An alternative estimate of employment is provided by economic data compiled in the ALARI database, which indicate that there were 192 employed residents in Manokotak in 2010, of which 53.6% were employed in local government, 9.9% in trade, transportation, and utilities, 9.4% were employed in education and health services, 8.3% in financial activities, 2.6% in manufacturing, 2.1% in leisure and hospitality, 1.6% in natural resources and mining, 0.5% in construction, 0.5% in information, 0.5% in professional and business services, 0.5% in state government, and 10.4% in other industries.<sup>41</sup> As with income statistics, it should also be noted that ACS and DOLWD employment statistics do not reflect residents' activity in the subsistence economy.

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

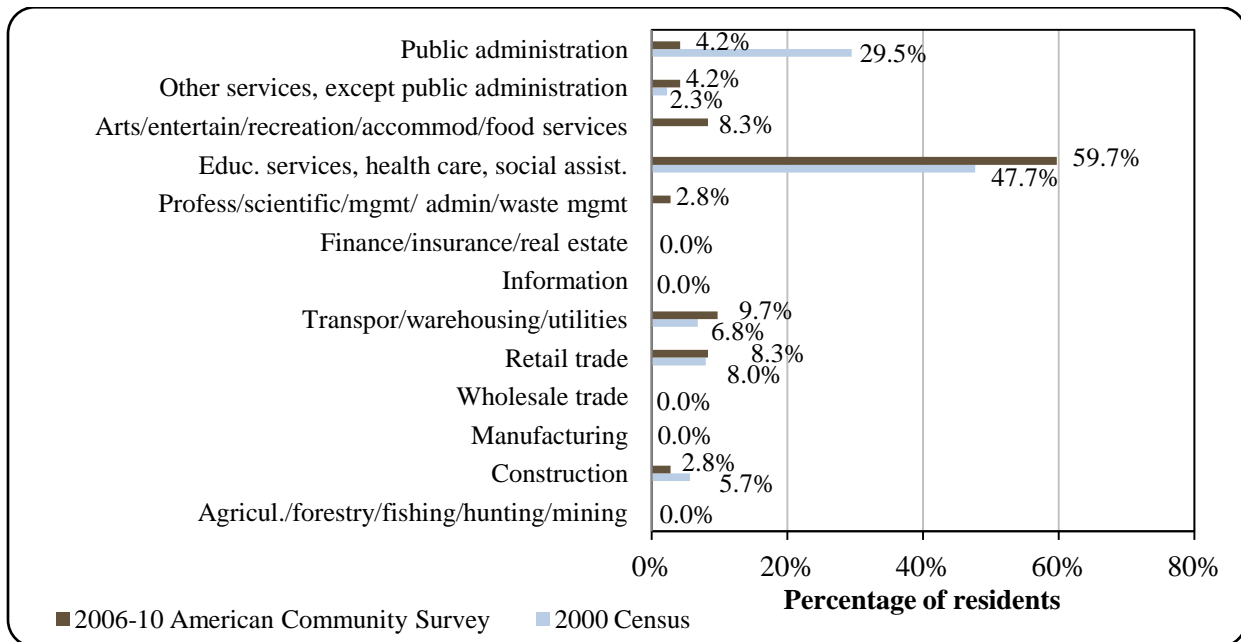
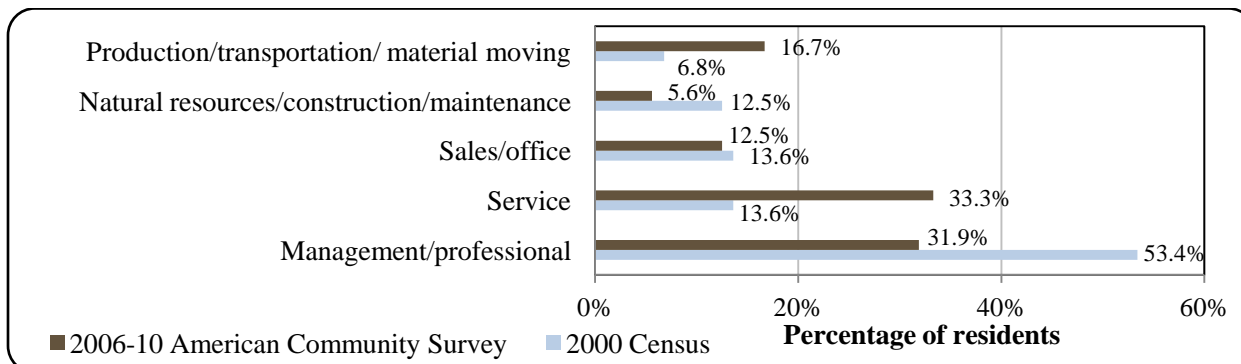


Figure 4. Local Employment by Occupation in 2000-2010, Manokotak (U.S. Census).



<sup>41</sup> 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/>.

## Governance

Manokotak is a 2<sup>nd</sup> Class City, and is not part of an organized borough. The City was incorporated in 1970 and has a Strong Mayor form of government, which includes a seven-person city council, including the mayor, a five-person advisory school board, and several municipal employees. As of 2010, the City administered a 2% sales tax and did not collect property tax.<sup>42</sup> Annual municipal revenue more than doubled between 2000 and 2010. In addition to sales tax, local revenue sources in Manokotak during the decade included rental of spaces and equipment, and water, sewer, and other service fees. The City received contributions through the State Revenue Sharing program of just over \$25,000 per year from 2000 to 2003, and Community Revenue Sharing contributions of almost \$120,000 per year in 2009 and 2010. Additional state revenue sharing came from the state raw fish tax and telephone tax, and the City also received funds from the federal Payment In Lieu of Taxes program, as well as a variety of grants.

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

Year	Total Municipal Revenue <sup>1</sup>	Sales Tax Revenue <sup>2</sup>	State/Community Revenue Sharing <sup>3,4</sup>	Fisheries-Related Grants (State and Federal) <sup>5</sup>
2000	\$273,929	\$7,626	\$26,505	n/a
2001	\$198,266	\$3,259	\$27,866	n/a
2002	\$141,369	\$2,972	\$25,871	n/a
2003	\$335,774	\$26,666	\$26,011	n/a
2004	\$168,254	\$1,023	n/a	n/a
2005	\$179,651	\$16,205	n/a	n/a
2006	\$376,369	\$6,938	n/a	n/a
2007	\$704,062	\$27,952	n/a	n/a
2008	\$479,832	\$9,987	n/a	n/a
2009	\$522,564	\$28,207	\$118,212	n/a
2010	\$822,914	\$11,944	\$117,936	n/a

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

<sup>1</sup> Alaska Department of Commerce, Community, and Economic Development. (n.d.). *Financial Documents Delivery System*. Retrieved at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm). Data retrieved April 15, 2011.

<sup>2</sup> Alaska Department of Commerce, Community, and Economic Development. (n.d.). *Alaska Taxable (2000-2010)*. Retrieved at [http://www.commerce.state.ak.us/dca/osa/osa\\_summary.cfm](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm). Data retrieved April 15, 2011.

<sup>3</sup> Alaska Department. of Revenue. (n.d.). *(2000-2009) Taxes and Fees Annual Report*. Accessed at [www.tax.state.ak.us](http://www.tax.state.ak.us). Data retrieved April 15, 2011.

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

<sup>5</sup> Alaska Dept. of Comm. and Rural Affairs. (n.d.). *Community Funding Database*. Retrieved at [http://www.commerce.state.ak.us/dca/commdb/CF\\_Grants.htm](http://www.commerce.state.ak.us/dca/commdb/CF_Grants.htm). Data retrieved April 15, 2011.

<sup>42</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

The increasing trend in total municipal revenue in the second half of the 2000-2010 period can be explained both by large Community Revenue Sharing payments in 2009 and 2010, and also by an increase in grants to the City of Manokotak from entities including the U.S. Department of Agriculture, the Bristol Bay Economic Development Corporation (BBEDC) – the Community Development Quota (CDQ) entity representing the Bristol Bay region, and the Bristol Bay Native Association (BBNA). Community grants were also received from the Alaska Leader Fisheries Foundation based in Kodiak. No specific fisheries-related grant revenue was reported between 2000 and 2010. Refer to Table 2 for details on selected community finances from 2000 to 2010.

Manokotak was included under the Alaska Native Claims Settlement Act (ANCSA), and is federally recognized as a Native village. The authorized traditional entity, recognized by the Bureau of Indian Affairs, is the Manokotak Village Council. The Native village corporation is Manokotak Natives Limited, which manages 125,620 acres of land. The regional Native corporation to which Manokotak belongs is the Bristol Bay Native Corporation (BBNC).<sup>43</sup>

Manokotak is also a member of the Bristol Bay Native Association (BBNA), a regional non-profit organization headquartered in Dillingham that provides social, economic, cultural, and educational opportunities and initiatives for the benefit of the Tribes and the Native people of Bristol Bay.<sup>44</sup> The BBNA is 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.<sup>45</sup>

The closest office of the Alaska Department of Fish and Game (ADF&G) and the Alaska Department of Commerce, Community and Economic Development are located in Dillingham. Kodiak has the closest offices of the Alaska Department of Natural Resources, the National Marine Fisheries Service (NMFS), and Bureau of Citizenship and Immigration Services, although the Anchorage offices of these agencies may be more accessible to people from the Manokotak area.

## Infrastructure

### *Connectivity and Transportation*

The City of Manokotak is accessible by both air and water. A state-owned, 3,300-ft-long by 75-ft-wide lighted gravel airstrip is located 1 mile north of the community, and a designated seaplane base is also present. Both regularly scheduled and charter flights are available from Dillingham.<sup>46</sup> The price of a roundtrip ticket by plane from Manokotak to Anchorage in early June 2012 was \$588.<sup>47</sup> There are no docking facilities on the Igushik River, and supplies that are lightered each summer must be pulled up to the mud beach. Traveling by boat on the Igushik River can be difficult, as the river is made up of meandering loops. This means that many miles must be traveled by water to cover a short distance in air miles. Residents use ATVs,

---

<sup>43</sup> Ibid.

<sup>44</sup> Bristol Bay Native Association (n.d.). *BBNA homepage*. Retrieved November 16, 2011 from [www.bbna.com](http://www.bbna.com).

<sup>45</sup> 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>.

<sup>46</sup> See footnote 42.

<sup>47</sup> This price was calculated on November 21, 2011 using [kayak.com](http://kayak.com).

snowmobiles, and some vehicles for transportation. During the winter months, snowmobiles are used to travel on the Manokotak Trail to Dillingham to retrieve fuel.<sup>48</sup>

### *Facilities*

Electricity in town is provided by a diesel powerhouse called the Manokotak Power Company, which is operated by the Village Corporation. The primary source of water for the community is two wells. Water is stored in a 150,000-gallon water storage tank and distributed via a city-operated piped water system that serves 99 households and the school. The community also has a few individual wells. Manokotak Heights, located four miles to the south, is served by a well system, but water shortages have occurred. The City also operates the piped sewer system and the landfill, although individuals are responsible for collecting their own refuse.<sup>49</sup> **Police services are provided by the State VPSO (Village Public Safety Officer) stationed in Manokotak<sup>50</sup> and state troopers stationed in Dillingham.<sup>51</sup> Manokotak currently has a school library and gymnasium. Telephone service is provided by Nushagak Telephone Co-op and AT&T Alascom GCI Nushagak Telephone, and internet and cable service are also available in town.<sup>52</sup> In the 2011 AFSC survey, community leaders indicated that improvements are underway to water and sewer pipelines, and a new landfill/solid waste site is being developed. They also noted that publicly subsidized housing is available in Manokotak. According to a business and jobs survey conducted in April 2005 by the City of Manokotak, a local business provides occasional lodging to visitors, and there is a U.S. post office in the community.<sup>53</sup>**

**With regard to fisheries-related facilities, community leaders reported in the 2011 AFSC survey that Manokotak has a haulout facility for boats less than 60 tons, and fishing gear repair services are available locally. They indicated that plans are underway to improve the barge landing area and construct new dock space within the next 10 years.** They also indicated that residents typically travel to the nearby City of Dillingham to access fisheries-related businesses and services not available in Manokotak.

### *Medical Services*

Health care is available at the Manokotak Health Clinic, which is owned by the Village Council and operated by the **Bristol Bay Area Health Corporation. Emergency Services are provided by volunteers and five health aides; emergency services have river and air access. Alternate health care is provided by the Manokotak First Responders.<sup>54</sup> The nearest hospital is located in Dillingham.**

---

<sup>48</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>49</sup> Ibid.

<sup>50</sup> Dept. of Public Safety (n.d.). *Active VPSO's by Village, December 2011*. Retrieved December 12, 2011 from <http://www.dps.alaska.gov/>.

<sup>51</sup> Alaska Dept. of Public Safety (2012). *Alaska State Trooper Detachments*. Retrieved June 1, 2012 from <http://www.dps.state.ak.us/ast/detachments.aspx>.

<sup>52</sup> See footnote 48.

<sup>53</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.

<sup>54</sup> See footnote 48.

### *Educational Opportunities*

One school, Manokotak School, is located in the community, and provides a Kindergarten through 12<sup>th</sup> grade education. As of 2011, there were 12 teachers and 121 students in attendance.<sup>55</sup>

## **Involvement in North Pacific Fisheries**

### *History and Evolution of Fisheries*

Subsistence fishing activities have been important to residents of the Manokotak area for thousands of years. The Nushagak region was historically inhabited by a coastal population that combined fishing and hunting of marine mammals, and an interior population that focused on hunting and fishing with frequent trips to the coast, especially during summer months.<sup>56</sup> By the time of Manokotak's settlement in the mid-1900s, commercial fishing – particularly the sockeye salmon fishery – was well established in Bristol Bay.<sup>57</sup> The largest aggregation of herring in Alaska spawns along the northern shore of Bristol Bay, southwest of Manokotak near the Village of Togiak. In Alaska, commercial catch of herring for human consumption began in 1878, commercial harvest of herring for bait began around 1900, and herring sac roe fisheries developed in the late 1970s.<sup>58</sup>

Today, a combination of commercial and subsistence harvest of marine resources provides the foundation for the local economy.<sup>59</sup> In recent decades, the number of fishing permits held by Manokotak residents has declined. Trends in permit ownership between 2000 and 2010 are described in the *Commercial Fishing* section below, but it is important to note that numbers of permits had already fallen dramatically prior to the year 2000. The City of Manokotak's Comprehensive Plan summarizes the decline over the previous decade, with overall permits held by residents falling from 261 in 1990 to 150 permits in 2002, a reduction of 43%. The number of "other finfish" permits dropped from 15 to 1 during the 1990-2000 period. Halibut permits declined by 75% in the first half of the 1990s, prior to rationalization of that fishery in the middle of the decade.<sup>60</sup>

Manokotak is located on the Igushik River, which joins Nushagak Bay before it empties into Bristol Bay. This marine area is encompassed by the Federal Statistical and Reporting Area 514, Pacific Halibut Fishery Regulatory Area 4E, and the Bering Sea Sablefish Regulatory Area. Manokotak participates in the CDQ program as a member of the BBEDC (Bristol Bay Economic

---

<sup>55</sup> Alaska Department of Education and Early Development. (2012). *Statistics and Reports*. Retrieved April 24, 2012 from <http://eed.alaska.gov/stats/>.

<sup>56</sup> VanStone, J. W. (1968). *An Annotated Ethnographic Bibliography of the Nushagak River Region, Alaska*. *Anthropology*, 54(2). Field Museum of Natural History. Chicago.

<sup>57</sup> 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>.

<sup>58</sup> 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>.

<sup>59</sup> See footnote 48.

<sup>60</sup> See footnote 53.

Development Corporation). The community is not eligible for the Community Quota Entity (CQE) program.

According to a survey conducted by the AFSC in 2011, community leaders reported that Manokotak's participation in fisheries management processes in Alaska occurs through a representative. The representative participates in the Federal Subsistence Board or Federal Subsistence Regional Advisory Council process.

### *Processing Plants*

ADF&G's 2010 Intent to Operate list does not list a registered processing plant in Manokotak. Several processing facilities are registered in nearby communities throughout Bristol Bay, including Dillingham, Egegik, and Naknek.

### *Fisheries-Related Revenue*

Overall, in 2010, the City of Manokotak received \$19,805 from fisheries-related taxes and fees. These revenue sources include the Shared Fisheries Business Tax and a raw fish tax. Table 3 provides information about selected fisheries-related revenue sources in Manokotak.<sup>61</sup>

It is also important to note that the BBEDC uses fisheries revenue from the CDQ program to provide grants for infrastructure, fuel and electrical assistance to member communities. The BBEDC also offers educational scholarships, vocational training, and fishing permit acquisition and financing assistance to residents of its member communities.<sup>62</sup> Manokotak reported receipt of between \$22,000 and \$35,000 in funds per year from the BBEDC between 2005 and 2009.<sup>63</sup>

### *Commercial Fishing*

Although Manokotak is not located directly on the coast it still has a large tie to the commercial fishing industry. Local residents participate in state and federal fisheries as permit and quota share account holders, crew members, and vessel owners. In the 2011 AFSC survey, community leaders reported that Manokotak residents participate in the sockeye salmon fishery in June and July, the coho salmon fishery in August and September, and the herring fishery in April and May. In 2010, Manokotak vessel owners landed 928,017 net lb of salmon, earning \$805,375 in ex-vessel revenue. Other landings and ex-vessel revenue are considered confidential that year due to the small number of participants. Information about salmon harvest by Manokotak residents was reported for all years from 2000 to 2010, while herring landings and ex-vessel revenue are considered confidential in all years but 2000 and 2001, and halibut landings and ex-vessel revenue in all years but 2002. This information about landings and ex-vessel revenue generated by Manokotak vessel owners is presented in Table 10. Since no buyers or shore-side processors were present in the community between 2000 and 2010 (Table 5), no

---

<sup>61</sup> 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.

<sup>62</sup> Bristol Bay Economic Development Corporation (2010). *Annual Report 2010*. Retrieved November 16, 2011 from <http://www.bbedc.com>.

<sup>63</sup> Alaska Dept. of Comm. and Rural Affairs (n.d.). *Financial Documents Delivery System*. Retrieved at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm). Data retrieved April 15, 2011.

deliveries were made locally, and no ex-vessel revenue was generated in Manokotak in 2010 (Table 9).

In 2010, 99 Manokotak residents held a total of 119 commercial fishing permits issued by the Commercial Fisheries Entry Commission (CFEC). The bulk of CFEC permits were held in salmon and herring fisheries in 2010. That year there were 72 permit holders holding 66 salmon permits for Bristol Bay drift and set gill net fisheries, of which 53 were actively fished. There were also 50 permit holders holding 52 herring permits in the Bristol Bay roe fishery, the Bristol Bay spawn on kelp fishery, and the Goodnews Bay roe and food/bait fishery. Of these, only one Bristol Bay roe permit was actively fished in 2010. In addition, there was one active halibut permit holder in 2010 (longline vessel under 60 ft, statewide permit). It is important to note that there was also one CFEC groundfish permit held by a Manokotak resident between 2000 and 2004, but this permit was not actively fished during these years.

These numbers represent large declines in total number of permits in these fisheries over the decade, with a 34% decrease in herring permits and a 16% decrease in salmon permits (27% decrease in total permits overall) between 2000 and 2010. The number of permit holders remained more stable, with only a 6% decline overall. No Federal Fisheries Permits (FFP) or federal License Limitation Program permits (LLP) were issued to Manokotak residents between 2000 and 2010. This permit information is presented in Table 4.

Between 2000 and 2010, two quota share accounts were held by Manokotak residents in the federal catch share halibut fishery, and a total of 1,601 halibut quota shares were held in the federal halibut fishery. The annual halibut individual fishing quota (IFQ) allotment declined over the 2000-2010 period. No quota share accounts were held in Manokotak in federal catch share fisheries for sablefish or crab between 2000 and 2010. Information about federal catch share participation is presented in Tables 6 through 8.

In 2010, Manokotak residents held 103 commercial crew licenses, 30 residents were the primary owner of a fishing vessel, and 16 vessels were homeported in Manokotak. The total crew licenses held in 2010 (103 licenses) was slightly higher than in 2000 (97 licenses); the number of crew licenses decreased by about 25% between 2000 and 2006, but rebounded by 2010. In contrast, there was a substantial downward trend in vessel ownership and homeported vessels, with a 48% decrease in vessel ownership and 49% decrease in vessels homeported in Manokotak between 2000 and 2010. According to the 2011 AFSC survey, community leaders reported that the remaining vessels using Manokotak as a base of fishing operations were all under 35 feet in length, and were gillnetters primarily involved in the Bristol Bay salmon fishery. These characteristics of the Manokotak commercial fishing sector are presented in Table 5.

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

Revenue source	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Raw fish tax <sup>1</sup>	\$4,000	\$3,833	\$6,000	\$5,000	\$4,500	\$5,144	\$4,750	\$6,500	\$8,000	\$8,000	\$10,000
Shared Fisheries Business Tax <sup>1</sup>	\$3,833	\$6,816	\$5,954	\$4,751	\$4,364	\$5,144	\$6,605	\$8,014	\$7,556	\$9,587	\$9,183
Fisheries Resource Landing Tax <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fuel transfer tax <sup>2</sup>	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 <sup>2</sup>	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 <sup>1</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Boat hauls <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Harbor usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Port/dock usage <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Fishing gear storage on public land <sup>3</sup>	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 <sup>3</sup>	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
<b>Total fisheries-related revenue<sup>4</sup></b>	<b>\$7,833</b>	<b>\$10,649</b>	<b>\$11,954</b>	<b>\$9,751</b>	<b>\$8,864</b>	<b>\$10,288</b>	<b>\$11,390</b>	<b>\$14,606</b>	<b>\$15,903</b>	<b>\$18,177</b>	<b>\$19,805</b>
<b>Total municipal revenue<sup>5</sup></b>	<b>\$273,929</b>	<b>\$198,266</b>	<b>\$141,369</b>	<b>\$335,774</b>	<b>\$168,254</b>	<b>\$179,651</b>	<b>\$376,369</b>	<b>\$704,062</b>	<b>\$479,832</b>	<b>\$522,564</b>	<b>\$822,914</b>

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

<sup>1</sup> Alaska Department of Commerce, 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](http://www.commerce.state.ak.us/dca/osa/osa_summary.cfm).

<sup>2</sup> Alaska Department of Commerce, Community, and Economic Development. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).

<sup>3</sup> Reported by community leaders in a survey conducted by the AFSC in 2011.

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

<sup>5</sup> Total municipal revenue represents the total revenue that the city reports each year in its financial statements. Alaska Department of Commerce, Community, and Economic Development. (n.d.) *Financial Documents Delivery System*. Retrieved April 15, 2011 at [http://www.commerce.state.ak.us/dcra/commfin/CF\\_FinRec.cfm](http://www.commerce.state.ak.us/dcra/commfin/CF_FinRec.cfm).



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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Groundfish (LLP) <sup>1</sup>	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Crab (LLP) <sup>1</sup>	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	-	-	-	-	-	-	-	-	-	-	-
	Total permit holders	0	0	0	0	0	0	0	0	0	0	0
Federal Fisheries Permits <sup>1</sup>	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
Crab (CFEC) <sup>2</sup>	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
Other shellfish (CFEC) <sup>2</sup>	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
Halibut (CFEC) <sup>2</sup>	Total permits	3	4	6	8	4	4	1	1	1	0	1
	Fished permits	1	0	2	1	1	1	0	0	0	0	1
	% of permits fished	33%	0%	33%	13%	25%	25%	0%	0%	0%	-	100%
	Total permit holders	3	4	6	8	4	4	1	1	1	0	1
Herring (CFEC) <sup>2</sup>	Total permits	79	76	68	65	59	58	57	53	52	52	52
	Fished permits	8	5	7	5	2	2	1	1	1	2	1
	% of permits fished	10%	7%	10%	8%	3%	3%	2%	2%	2%	4%	2%
	Total permit holders	56	57	52	53	50	52	53	51	50	50	50

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

Species		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Sablefish (CFEC) <sup>2</sup>	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
Groundfish (CFEC) <sup>2</sup>	Total permits	1	1	1	1	1	0	0	0	0	0	0
	Fished permits	0	0	0	0	0	0	0	0	0	0	0
	% of permits fished	0%	0%	0%	0%	0%	-	-	-	-	-	-
	Total permit holders	1	1	1	1	1	0	0	0	0	0	0
Other Finfish (CFEC) <sup>2</sup>	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) <sup>2</sup>	Total permits	79	82	78	76	73	77	73	72	73	68	66
	Fished permits	72	75	51	55	53	57	56	51	57	49	53
	% of permits fished	91%	91%	65%	72%	73%	74%	77%	71%	78%	72%	80%
	Total permit holders	82	89	80	80	82	84	80	81	77	70	72
<i>Total CFEC Permits<sup>2</sup></i>	<i>Permits</i>	<i>162</i>	<i>163</i>	<i>153</i>	<i>150</i>	<i>137</i>	<i>139</i>	<i>131</i>	<i>126</i>	<i>126</i>	<i>120</i>	<i>119</i>
	<i>Fished permits</i>	<i>81</i>	<i>80</i>	<i>60</i>	<i>61</i>	<i>56</i>	<i>60</i>	<i>57</i>	<i>52</i>	<i>58</i>	<i>51</i>	<i>55</i>
	<i>% of permits fished</i>	<i>50%</i>	<i>49%</i>	<i>39%</i>	<i>41%</i>	<i>41%</i>	<i>43%</i>	<i>44%</i>	<i>41%</i>	<i>46%</i>	<i>43%</i>	<i>46%</i>
	<i>Permit holders</i>	<i>105</i>	<i>113</i>	<i>101</i>	<i>102</i>	<i>104</i>	<i>106</i>	<i>106</i>	<i>106</i>	<i>102</i>	<i>95</i>	<i>99</i>

<sup>1</sup>National Marine Fisheries Service. 2011. Data on Limited Liability Permits, 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.]

<sup>2</sup>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 Manokotak: 2000-2010.

Year	Crew License Holders <sup>1</sup>	Count Of All Fish Buyers <sup>2</sup>	Count Of Shore-Side Processing Facilities <sup>3</sup>	Vessels Primarily Owned By Residents <sup>4</sup>	Vessels Homeported <sup>4</sup>	Vessels Landing Catch In Manokotak <sup>2</sup>	Total Net Lb Landed In Manokotak <sup>2,5</sup>	Total Ex-Vessel Value Of Landings In Manokotak <sup>2,5</sup>
2000	97	0	0	59	31	0	0	\$0
2001	110	0	0	58	28	0	0	\$0
2002	86	0	0	50	24	0	0	\$0
2003	69	0	0	46	24	0	0	\$0
2004	77	0	0	41	21	0	0	\$0
2005	76	0	0	40	19	0	0	\$0
2006	75	0	0	35	17	0	0	\$0
2007	80	0	0	32	15	0	0	\$0
2008	84	0	0	34	17	0	0	\$0
2009	103	0	0	32	17	0	0	\$0
2010	103	0	0	30	16	0	0	\$0

<sup>1</sup> 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.]

<sup>2</sup> 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.]

<sup>3</sup> 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.]

<sup>4</sup> 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.]

<sup>5</sup> Totals only represent non-confidential data.

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

<b>Year</b>	<b>Number of Halibut Quota Share Account Holders</b>	<b>Halibut Quota Shares Held</b>	<b>Halibut IFQ Allotment (pounds)</b>
2000	2	1,601	198
2001	2	1,601	221
2002	2	1,601	225
2003	2	1,601	225
2004	2	1,601	231
2005	2	1,601	224
2006	2	1,601	212
2007	2	1,601	198
2008	2	1,601	188
2009	2	1,601	170
2010	2	1,601	155

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 Manokotak: 2000-2010.

<b>Year</b>	<b>Number of Sablefish Quota Share Account Holders</b>	<b>Sablefish Quota Shares Held</b>	<b>Sablefish IFQ Allotment (pounds)</b>
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 Manokotak: 2000-2010.

<b>Year</b>	<b>Number of Crab Quota Share Account Holders</b>	<b>Crab Quota Shares Held</b>	<b>Crab IFQ Allotment (pounds)</b>
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 Manokotak: 2000-2010.

	<i>Total Net Pounds<sup>1</sup></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>Total<sup>2</sup></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>Total<sup>2</sup></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.]

<sup>1</sup> Net lb refers to the landed weight recorded in fish tickets.

<sup>2</sup> Totals only represent non-confidential data.

NOAA-TM-AFSC-259 – Volume 8  
Community Profiles for North Pacific Fisheries – Alaska: Manokotak

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

	<i>Total Net Pounds<sup>1</sup></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	-	-	13,774	-	-	-	-	-	-	-	-
Herring	152,868	183,447	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	1,397,097	960,616	366,711	1,008,967	1,388,368	1,200,884	1,212,458	873,193	935,262	1,050,747	928,017
<i>Total<sup>2</sup></i>	<i>1,549,965</i>	<i>1,144,063</i>	<i>380,485</i>	<i>1,008,967</i>	<i>1,388,368</i>	<i>1,200,884</i>	<i>1,212,458</i>	<i>873,193</i>	<i>935,262</i>	<i>1,050,747</i>	<i>928,017</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	-	-	\$29,036	-	-	-	-	-	-	-	-
Herring	\$16,195	\$14,252	-	-	-	-	-	-	-	-	-
Other Groundfish	-	-	-	-	-	-	-	-	-	-	-
Other Shellfish	-	-	-	-	-	-	-	-	-	-	-
Pacific Cod	-	-	-	-	-	-	-	-	-	-	-
Pollock	-	-	-	-	-	-	-	-	-	-	-
Sablefish	-	-	-	-	-	-	-	-	-	-	-
Salmon	\$905,472	\$362,729	\$156,526	\$462,604	\$645,653	\$653,032	\$718,206	\$530,870	\$638,486	\$775,147	\$805,375
<i>Total<sup>2</sup></i>	<i>\$921,667</i>	<i>\$376,981</i>	<i>\$185,562</i>	<i>\$462,604</i>	<i>\$645,653</i>	<i>\$653,032</i>	<i>\$718,206</i>	<i>\$530,870</i>	<i>\$638,486</i>	<i>\$775,147</i>	<i>\$805,375</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.]

<sup>1</sup> Net lb refers to the landed weight recorded in fish tickets.

<sup>2</sup> Totals only represent non-confidential data.

### *Recreational Fishing*

Between 2000 and 2010, no active sport fish guide businesses were located in Manokotak. Likewise, no sport fish guide licenses were registered in the community during the 2000-2010 period, with the exception of 2003 and 2004 when one guide license was registered to a Manokotak resident each year. In 2010, 31 sportfishing licenses were sold in Manokotak. That same year, 56 Manokotak residents purchased sportfishing licenses (irrespective of point of sale). Between 2000 and 2010, there were consistently more licenses sold to Manokotak residents than total licenses sold in Manokotak. This, along with the lack of support businesses in the community, indicates that sportfishing is not a major local tourism draw. This information about the sportfishing sector in Manokotak is presented in Table 11.

In a survey conducted by the AFSC in 2011, community leaders reported that both Alaska resident and non-Alaska resident sport fishermen fished out of Manokotak using private boats, primarily targeting sockeye salmon. The Alaska Statewide Harvest Survey,<sup>64</sup> conducted by ADF&G between 2000 and 2010, noted the following species targeted by private anglers in Manokotak: coho, sockeye, and pink salmon, rainbow trout, Dolly Varden char, whitefish, northern pike, and smelt. The survey also noted harvest of hardshell clams in Manokotak. No kept/release log book data were reported for fishing charters out of Manokotak between 2000 and 2010.<sup>65</sup>

Manokotak is located within Alaska Sport Fishing Survey Area T – Nushagak, Wood River and Togiak. Information is available about both saltwater and freshwater sportfishing activity at this regional scale. Overall between 2000 and 2010, there were more non-Alaska resident than Alaska resident angler days fished, and there was significantly greater freshwater harvest than saltwater. Between 2000 and 2010, non-Alaska resident anglers fished between 15,676 and 33,089 freshwater angler days and between 81 and 767 saltwater angler days per year. Alaska resident anglers fished between 7,356 and 19,980 freshwater angler days and between 31 and 921 saltwater angler days per year. This information about the sportfishing sector in and near Manokotak is displayed in Table 11.

---

<sup>64</sup> 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).

<sup>65</sup> Alaska Department of Fish and Game (2011). *Alaska sport fish charter logbook database, 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.]

Table 11. Sport Fishing Trends, Manokotak: 2000-2010.

Year	Active Sport Fish Guide Businesses <sup>1</sup>	Sport Fish Guide Licenses <sup>1</sup>	Sport Fishing Licenses Sold to Residents <sup>2</sup>	Sport Fishing Licenses Sold in Manokotak <sup>2</sup>
2000	0	0	24	9
2001	0	0	39	25
2002	0	0	44	41
2003	0	1	29	13
2004	0	1	58	25
2005	0	0	57	30
2006	0	0	69	50
2007	0	0	52	0
2008	0	0	56	9
2009	0	0	84	37
2010	0	0	56	31

Year	Saltwater Angler Days Fished – Non-Residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>	Freshwater Angler days fished –Non-Residents <sup>3</sup>	Angler Days Fished – Alaska Residents <sup>3</sup>
2000	246	183	31,290	11,793
2001	652	599	31,489	10,779
2002	665	31	20,011	11,911
2003	321	464	26,783	13,419
2004	767	61	25,203	19,980
2005	81	246	33,089	15,662
2006	365	196	28,840	14,858
2007	326	921	28,541	13,762
2008	113	103	27,066	7,356
2009	107	38	22,444	7,805
2010	0	44	15,676	7,709

<sup>1</sup> 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.]

<sup>2</sup> 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.]

<sup>3</sup> 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*

Residents of Manokotak are heavily dependent on subsistence harvests. Relationships exist with neighboring communities for the sharing of resources, especially with Togiak and Twin Hills.<sup>66,67</sup> In a survey conducted by the AFSC in 2011, community leaders reported that salmon and other fish, waterfowl, and marine mammals are the most important aquatic subsistence resources used by residents of Manokotak.

In 2008, the only year that a subsistence survey was conducted by ADF&G in the community of Manokotak between 2000 and 2010, 89% of households were estimated to participate in salmon subsistence, 83% in non-salmon fish subsistence (not including halibut), 81% in marine invertebrate subsistence, 62% participated in marine mammal subsistence, and 13% participated in halibut subsistence (Table 12). These results can be compared an earlier 1985 ADF&G subsistence survey of 54 households in Manokotak. That year, 100% of households reported using salmon, 100% used non-salmon fish (herring, herring roe, smelt, flounder, blackfish, turbot, Arctic char, Arctic grayling, northern pike, trout, and whitefish), 83.3% used marine mammals, and 88.9% used marine invertebrates. The per capita harvest of land and sea-based resources by Manokotak's residents in 1985 was 384 lb, of which 35.4% was salmon, 22.2% was non-salmon fish, 8.5% was marine mammals, 1.2% was marine invertebrates, 4.4% was birds and eggs, 24.7% was land mammals, and 3.7% was vegetation.<sup>68</sup>

Additional information was available from 2000 to 2008 regarding subsistence salmon permits in Manokotak. In 2000 and from 2004 to 2007, the number of subsistence permits issued to Manokotak households varied between 20 and 22. In 2008, the number increased to 57. The increase may be due to the fact that ADF&G conducted a subsistence harvest survey in the Village that year, resulting in increased participation and a higher number of permits recorded.<sup>69</sup> Information was also available regarding marine invertebrate and non-salmon fish for the year 2008 only. That year, Manokotak residents harvested 3,570 lb of marine invertebrates and 109,526 lb of non-salmon fish (not including halibut) (Table 13).

Available data regarding individual subsistence harvest of halibut and marine mammals are presented in Tables 14 and 15. Between 2004 and 2010, either one or two Subsistence Halibut Registration Certificates (SHARC) were issued to Manokotak residents per year, but no information was reported about the number of SHARC cards fished or total lb of halibut harvested during these years (Table 14). Between 2000 and 2010, ADF&G reported harvest of between 1 and 9 harbor seals and between 5 to 46 spotted seals per year. In addition, beluga whale harvests were reported from 1 to 10 animals per year from 2000 to 2010. No information was reported by management agencies regarding harvest of sea otter, walrus, or Steller sea lion by Manokotak residents between 2000 and 2010 (Table 15).

---

<sup>66</sup> 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](http://www.commerce.state.ak.us/dca/commdb/CF_BLOCK.htm).

<sup>67</sup> City of Manokotak. October 2005. *Manokotak Comprehensive Plan*. Retrieved November 28, 2011 from <http://www.agnewbeck.com>.

<sup>68</sup> Schichnes, J., and M. Chythlook (1988). *Use of Fish and Wildlife in Manokotak, Alaska*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 152, Anchorage, pg. 19-20. Retrieved November 29, 2011 from <http://www.subsistence.adfg.state.ak.us>.

<sup>69</sup> 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. ADF&G Division of Subsistence, Technical Paper No. 359, Anchorage. Pg. 73. Retrieved December 5, 2011 from <http://www.adfg.alaska.gov/techpap/TP359.pdf>.

Table 12. Subsistence Participation by Household and Species, Manokotak: 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	89%	13%	62%	81%	83%	975
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, Manokotak: 2000-2010.

Year	Subsistence Salmon Permits Issued <sup>1</sup>	Salmon Permits Returned <sup>1</sup>	Chinook Salmon Harvested <sup>1</sup>	Chum Salmon Harvested <sup>1</sup>	Coho Salmon Harvested <sup>1</sup>	Pink Salmon Harvested <sup>1</sup>	Sockeye Salmon Harvested <sup>1</sup>	Lbs of Marine Inverts <sup>2</sup>	Lbs of Non-Salmon Fish <sup>2</sup>
2000	22	21	331	24	171	8	2,639	n/a	n/a
2001	n/a	n/a	n/a	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	n/a	n/a	n/a
2003	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
2004	20	18	289	39	266	12	1,447	n/a	n/a
2005	21	21	110	2	192	n/a	1,272	n/a	n/a
2006	22	18	165	42	56	6	1,386	n/a	n/a
2007	21	20	440	51	32	6	1,915	n/a	n/a
2008	57	54	816	110	454	69	3,981	3,570	109,526
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.

<sup>1</sup> 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.

<sup>2</sup> 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, Manokotak: 2003-2010.

Year	SHARC Issued	SHARC Cards Fished	SHARC Halibut Lbs Harvested
2003	n/a	n/a	n/a
2004	2	n/a	n/a
2005	2	n/a	n/a
2006	2	n/a	n/a
2007	2	n/a	n/a
2008	2	n/a	n/a
2009	1	n/a	n/a
2010	2	n/a	n/a

*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, Manokotak: 2000-2010.

Year	# of Beluga Whales <sup>1</sup>	# of Sea Otters <sup>2</sup>	# of Walrus <sup>2</sup>	# of Polar Bears <sup>2</sup>	# of Steller Sea Lions <sup>3</sup>	# of Harbor Seals <sup>3</sup>	# of Spotted Seals <sup>3</sup>
2000	3	n/a	n/a	n/a	n/a	1	23
2001	4	n/a	n/a	n/a	n/a	4	8
2002	1	n/a	n/a	n/a	n/a	n/a	n/a
2003	10	n/a	n/a	n/a	n/a	2	5
2004	4	n/a	n/a	n/a	n/a	4	27
2005	3	n/a	n/a	n/a	n/a	7	46
2006	5	n/a	n/a	n/a	n/a	7	46
2007	4	n/a	1	n/a	n/a	n/a	18
2008	3	n/a	n/a	n/a	n/a	9	17
2009	4	n/a	2	n/a	n/a	n/a	n/a
2010	6	n/a	n/a	n/a	n/a	n/a	n/a

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

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> 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.

## **Additional Information**

In 1985, a lifelong resident of Manokotak, Anecia Lomack, recounted the story of Manokotak's founder:

Evon Minista is credited with being the founder of Manokotak. Originally from the Nushagak Peninsula, and his wife Susie was from Togiak. He was one of many who spent the winters of 1944 and 1945 at the end of the Igushik River to be closer to his commercial fishing grounds in Nushagak Bay. Following World War II, when gas was still in short supply, Minista's ration was insufficient either to get to Togiak to re-establish his family's residence or to return to their winter home. Searching for a new winter home along the Igushik River, he selected the current site of Manokotak in 1946 and other families soon joined.<sup>70</sup>

Others followed Minista to the new village site from areas of Kulukak, Nushagak, and Togiak bays. These villages were abandoned for a variety of reasons. Most notable, some people left Kulukak because of disease that they believed was caused by a curse placed on the village by a local who disliked others in the community.<sup>71</sup>

---

<sup>70</sup> Schichnes, J., and M. Chythlook (1988). *Use of Fish and Wildlife in Manokotak, Alaska*. Alaska Department of Fish and Game Division of Subsistence, Technical Paper No. 152, Anchorage, pg. 19-20. Retrieved November 29, 2011 from <http://www.subsistence.adfg.state.ak.us/techpap/tp152.pdf>. Quoted on pgs. 19-20.

<sup>71</sup> Ibid. Quoted on pg. 18.