

Moss Landing, California

People and Place

Location

Moss Landing is located in Monterey County of central California at 36°48'16"N and 121°47'09"W. The community is situated on the eastern shore of Monterey Bay at the mouth of the Elkhorn Slough. Moss Landing is the gateway to the Elkhorn Slough National Estuarine Research Reserve, the second largest marine wetland in California.^{1,2} Moss Landing is 25.4 miles south of Santa Cruz and 95.8 miles south of San Francisco. According to the 2000 U.S. Census Bureau, the community encompasses a total area of 0.6 square miles, including 0.2 square miles of water and 0.4 square miles of land.

Demographic Profile

According to the 2000 U.S. Census, Moss Landing had a total population of 300 people with a population density of 734.9 people per square mile of land. About 59.3% of the inhabitants were White, 3.0% African American, 0.7% Native American, and 2.0% Asian. A total of 21.7% identified with some other race and 13.3% with two or more races. Another 28.3% of the population identified themselves as having Hispanic or Latino origins. The community includes a considerable foreign-born population, making up 27.5% of the inhabitants as compared to the national average of 11.1%. A significant 18.9% of the population was born in Mexico. The 2000 U.S. Census also indicated that 21.2% of the community marked German as their first ancestry and 4.3% of the inhabitants were actually born in Germany. Another 11.9% of the population indicated Portuguese as their first ancestry and 4.3% of the community was born in Portugal. Population trends for the area are difficult to determine as Moss Landing was not recognized by the U.S. Census until 2000.

In 2000, the community was composed of 54% males and 46% females. The median age of Moss Landing was 36.4 years compared to the national average of 35.3 years. The 2000 U.S. Census reports that 21.3% of the community was under the age of 18, while the national average for this age group was 25.7%. A significant age group in the community was the 18-24 year olds which represented 11.7% of the total population compared to the national average of 9.6%. The 2000 U.S. Census reported that 66.7% of the population 18 years and older had received a high school degree or higher, while 24.2% received a bachelor's degree or higher. It is significant to note that 22.5% of the population 18 years and older received a high school degree as their highest educational attainment compared to the national average of 28.6%. It is also noteworthy that 18.6% had received a graduate degree or higher, whereas the national average is 7.8%. This high level of graduate level education attainment for Moss Landing may be due in part to the presence of the Monterey Bay Aquarium Research Institute and the Moss Landing Marine Lab.

History

The aboriginal lands of the Ohlone/Costanoan Esselen Nation extend from the southern Monterey Bay area and include the northern Salinas Valley, the Monterey Peninsula, the Big Sur coastline, and the mountainous interior from the Carmel highlands to the area around Soledad. Before colonization by the Spanish Empire in the 1700s, native people developed complex social and religious systems within tribal territorial boundaries composed of a central permanent village and other secondary or seasonal village sites. The lineal direct ancestors of the Esselen Nation came from the villages of at least nine major districts in the southern Monterey Bay region. Part

of the village area, Wacharon (Guachirron)/Calendaruc, was in the present-day Moss Landing area.³

In the early 17th century, many Europeans sailed to California looking for land to colonize for the Spanish Empire. The Spanish called the native people of the Central Coast, *costeños* or coast-dwellers, which eventually became Costanoan.⁴ In 1770, Spanish missionaries and soldiers moved Indians from their villages to the missions in Monterey. The ancestral villages were emptied and natives were not allowed to practice their own religion, speak in their language, or dress in their traditional clothing. After Mexican Independence in 1821, the missions were disbanded and secularized. It was intended that land be returned to the tribes, although most was not. When the United States took over California, the Treaty of Guadalupe Hidalgo obligated the U.S. to prevent the loss of native owned lands, but it was never carried out. A series of treaties that followed still failed to guarantee or recognize a land base for the Esselen Nation.

In the 1900s, anthropologist Alfred Kroeber stated that the Esselen- and Costanoan-speaking people were extinct, a statement which has created many present-day problems for the tribe in their attempts to receive federal recognition.⁵ Today, the Esselen Nation includes around 500 enrolled members. The Tribe was never legally terminated during the termination period. However, due to an administrative error, they lost their recognition status and the opportunity to receive land from the federal government. They submitted a petition for federal recognition through the Federal Acknowledgment Process in 1995.⁶

Moss Landing is described by the locals as a quaint, historic fishing village. The community was named after Captain Charles Moss in 1866, a Texan who, along with Portuguese whaler Cato Vierra, constructed a wharf to establish shipping facilities and a pier for commercial water traffic.⁷ Chinese immigrants were the first to dike, ditch, and drain the local wetlands for agriculture. Lumber, wheat, sugar beets, potatoes, and other products were shipped to San Francisco from Moss Landing. In 1906, an earthquake destroyed the wharf and much of the infrastructure.⁸

Portuguese whalers introduced the commercial whaling industry to the Monterey Bay area in 1853. Blubber was boiled and rendered into oil to be used as a source of light. Many immigrants from Asia came to the area to work in the whaling industry, which eventually gave way when the price of whale oil dropped with the introduction of kerosene in the 1870s.⁹ However, the advent of new modern whaling equipment brought the California Sea Products Company to Moss Landing in 1918 to build a large whaling factory. The factory closed in 1927 due to the drastic decline in the whale population, the drop in whale oil prices, and competition with offshore factory ships.^{10,11}

The 1900s brought in the “Monterey Clippers,” or Sicilian *lamparas*, who introduced sardine fishing to the area.¹² A site visit by a NOAA team member to Moss Landing in 2004 revealed that many Sicilians still reside in the community today. The sardine fishery stimulated the already present small-scale fishery in Moss Landing. World War I shut down Europe’s fishing grounds, giving a boost to West Coast fisheries. Life began to revolve around the sardine canneries and production increased. Sardines were shipped to soldiers during both world wars.¹³ The surrounding area prospered from this new fishery. The increase in development prompted the State Legislature to establish Moss Landing Harbor District in 1947. However, the sardine population collapsed within five years of its formation and by the 1950s many of the warehouses and canneries stood empty.¹⁴ Sardines populations run in 50-year cycles. Overfishing during the rise and peak of the 30s and 40s created a large enough impact that the population numbers in the

next rise were much lower than in the past.¹⁵ Some fishermen stayed on and switched their focus to other species. One of the Monterey fishermen interviewed in 2004 during a site visit by a NOAA team member stated that Moss Landing's safe port allowed commercial fishing in the community to become especially important after WWII.

In the early 1950s, Pacific Gas and Electric constructed the Moss Landing Power Plant, the second largest fossil fuel thermal electric power plant in the world. Duke Energy purchased the plant in 1998 and is in the process of redesigning the facilities to minimize environmental impacts.¹⁶ By the 1970s, five fish buyers had been established to receive and process fish at Moss Landing Harbor.¹⁷ The community also played a role in the first commercial transfer of eyed oyster larvae, which were produced at Pigeon Point, California, and then moved to the Moss Landing setting facility.¹⁸ Moss Landing is now one of the most important commercial fishing ports in California. In the early 1990s, the Monterey Bay Aquarium Research Institute built its research centers at the site of the old whaling factory.

At a site visit to the community in 2004 by a NOAA team member, a worker at one of the local processors in Moss Landing stated that regulations are the biggest factor affecting the fishing today. Two of the people interviewed in the community recall seeing people walking the docks everyday looking for work, but not in the last 10-15 years. They described the changes in the harbor community as the "end of an era" and the equivalent of losing "the family farm." Some of the community members spoke on how current conflicts over regulations have developed a division in the community between those who initially supported the designation of the Monterey Bay National Marine Sanctuary in 1992 and those who did not.

Today, Moss Landing is a well-known tourist destination for antiques. Lower commercial rental costs have attracted business owners from the Monterey area to Moss Landing. The first antique store opened in the community in 1969 and many others soon followed. In 2004, a site visit by a NOAA team member found that many of the stores retain a nautical theme in both their décor and the items they sell.

Infrastructure

Current Economy

The core of the Moss Landing economy is in commercial fishing, research, and recreation and tourism. Major employers of the area include Duke Energy and the Monterey Bay Aquarium Research Institute. Antique dealing has also become an important component of the economy in the last couple of decades. The 2000 U.S. Census indicates that 9.6% of the employed civilian population 16 years and over were in agriculture, forestry, fishing and hunting industries. The percentage may not be indicative of the actual number of people in these professions as many are self-employed, especially in the fishing industry. The 2000 U.S. Census reported that 15.7% of the community was in professional, scientific, and technical services and 28.4% were in arts, entertainment recreation, and accommodation and food services. Another 22.1% were employed by the government. The unemployment rate in 2000 was 17.8% (calculated by dividing the unemployed population by the labor force). For the population 16 years and older, 2.3% were not in the labor force, while 80.3% were employed.

In 1999, median household income was \$66,442 and per capita income was \$28,005. Inhabitants whose income was below poverty level in 1999 were 18.8% of the population. Of the 135 housing units in 2000, 92.6% of the housing units were occupied, while 7.4% were vacant. Of the occupied housing units, 47.2% were owner occupied and 52.8% were renter occupied.

Governance

Moss Landing is an unincorporated, census-designated place (CDP). The town has no city government due to its unincorporated status. Sales taxes are 7.25% based on the standard statewide rate. Monterey County has no district tax in effect. The County transient lodging tax rate is 10.5%. The annual property tax for Monterey County is approximately 1% of the property's assessed value, plus bonded indebtedness, assessment districts, and fees that are approved by the voters.

California state law assesses commercial vessels, charter boats, and oceanographic research vessels at 4% of their full cash value.¹⁹ Vessels registered in California with either the Department of Motor Vehicles or the U.S. Coast Guard (USCG) are assessed property taxes by the county tax collector where it is moored.²⁰ Some commercial vessels are also subject to a Ballast Water Management Fee of about \$500 per voyage.²¹ California levies a fuel tax of \$0.18 per gallon, a portion of which goes toward marine safety and education programs and boating facility administration and development.²²

The State of California levies landing taxes that must be paid by fishermen and fish processors involved in the retail sale of fish products. These taxes vary by species and range between \$.0013 and \$.0125 per pound of fish.²³ The California Department of Agriculture also administers two commodity commissions, the California Salmon Council and the California Sea Urchin Commission, which charge fees for marketing and lobbying on behalf of fishermen involved in these specific fisheries.²⁴

Moss Landing is 357.1 miles to the Southwest Regional Office of the National Marine Fisheries Service in Long Beach. The community is also 18.3 miles from Monterey which houses both the California Fish and Game Monterey Field Office and the closest U.S. Coast Guard Station. Moss Landing is 83.3 miles to the nearest U.S. Citizenship and Immigration Services Center in San Francisco. The closest possible Pacific Fisheries Management Council meetings are held in Foster City, located 76.5 miles from Moss Landing. North Pacific Fisheries Management Council meetings are held 717.8 miles away in Portland.

Facilities

Moss Landing is accessible by a number of transportation options. The major highway that intersects Moss Landing is U.S. Highway 1. A local transportation system runs buses along the highway to nearby communities. The community is also located 19.3 miles from the Monterey Peninsula Airport and 55.3 miles from the San Jose International Airport.

Students attend elementary schools in the nearby community of Castroville (3.7 miles) and the local middle school in Moss Landing. The main electric supply is provided by Pacific Gas and Electric. Water and sewer services are supplied by Cal-American Water Company. The Monterey County Sheriff Department administers local law enforcement. The closest high school is in Castroville.²⁵ The closest health care facility is Watsonville Community Hospital in Watsonville (9.4 miles).²⁶ Moss Landing accommodations include a bed-and-breakfast, a recreational vehicle park, and vacation rentals. In addition, there are hotels and motels in nearby communities.²⁷

A political subdivision of the State, the Moss Landing Harbor District is a self-supporting entity that is divided into two areas. The North Harbor serves recreational boating and visitor activities. The South Harbor serves commercial fishing and marine research. The Harbor District provides a public boat launch ramp and Woodward's Marine has dock space for rent. The Elkhorn Yacht Club is a private club for recreational boaters. Moss Landing Harbor has almost

600 berths, nearly two-thirds of which are for commercial use. Many of the commercial slips have gone unused as the fishing fleet has decreased in size, while there is a waiting list for recreational boats.²⁸ A community member interviewed during a 2004 site visit by a NOAA team member spoke about these changes. Historically, the main purpose of the Harbor District was commercial fishing. The first sportfishing business applied to the board of directors to be a part of the District ten years ago. In the past, crewmembers were at sea for months and then stayed on the boats when they were in port. However, the number of live-a-boards has diminished significantly. Of the 609 slips in the harbor, only 50-70 of them are used by commercial vessels today. Another community member mentioned noticing a gradual decline in the number of vessels with each new regulation.

Two research centers are located in the Moss Landing Harbor District, the Moss Landing Marine Lab and the Monterey Bay Aquarium Research Institute. The Research Institute includes 200 people working on deep water research instruments, 60 scientists, and 40-50 engineers. Research includes developing instruments, discovering new species, monitoring buoys, video recording, and other specialized studies. One of the researchers that was interviewed during a site visit in 2004 said that the institute recognizes the need for more communication with local fishermen. One of their main concerns presently is a new undersea observatory monitored by MARS that will be connected back to the institute with a large cable that may impact or be impacted by trawlers.

Organizations in the community include the Alliance for Communities for Sustainable Fisheries and the Fishermen's Association of Moss Landing. According to one its members interviewed in 2004 during a site visit to Monterey, the Alliance believes in trans-generational knowledge and good sound science. The Channel Island Marine Resource Process is an umbrella organization for groups like the Fishermen's Association of Moss Landing and, according to a fishermen interviewed during a 2004 site visit, are the "voice for the fishermen."

Involvement in West Coast Fisheries

Commercial Fishing

In 2000, of the 355 vessels that delivered landings to Moss Landing, all were commercial. Landings in the community were in the following West Coast fisheries (data shown represents landings in metric tons/value of said landings/number of vessels landing): coastal pelagic (22,720 t/\$3,398,666/33), crab (20 t/\$94,081/16), groundfish (812 t/\$1,547,736/91), highly migratory species (346 t/\$745,032/56), salmon (404 t/\$1,410,687/184), shrimp (confidential/confidential/2), and other species (6 t/\$26,405/37).

According to data sources, residents owned 27 vessels in 2000, of which two participated in the Groundfish Vessel Buyback Program. However, a 2004 site visit to the community by a NOAA team member revealed three Moss Landing vessels that participated in the Buyback Program. Community members owned 15 vessels that participated in the Federally Managed Groundfish fishery. Recorded data indicates that the number of vessels owned by Newport residents in 2000 that participated in each said fishery by state (WA/OR/CA) was: crab (0/0/3), groundfish (0/0/NA), highly migratory species (NA/0/NA), salmon (0/1/20), shellfish (NA/0/NA), and shrimp (NA/0/3).²⁹

Three Federally Managed Groundfish fishery permits were held by three Moss Landing residents in 2000. According to recorded data the number of individual community members holding permits in each said fishery by state (WA/OR/CA) was: coastal pelagic (0/0/6), crab

(0/0/3), groundfish (0/0/11), highly migratory species (NA/0/1), salmon (0/1/44), shellfish (0/0/NA), shrimp (0/0/5), and other species (1/0/13).³⁰

According to available data, 136 permits were registered to Moss Landing residents, of which 133 were registered state permits. Recorded data indicates that the number of permits held by these community members in each said fishery by state (WA/OR/CA) was: coastal pelagic (0/0/15), crab (0/0/3), groundfish (0/0/13), highly migratory species (NA/0/3), salmon (0/1/76), shellfish (0/0/NA), shrimp (0/0/7), and other species (1/0/14).³¹

One study on Moss Landing found that most of the receiving and processing jobs are outside of Moss Landing at fish buyers' processing facilities in other locations within or outside of Monterey County.³² However, on a 2004 site visit, it was found that there are at least four processor or off-loading/icing facilities located in the Harbor District.

Sportfishing

Moss Landing, which belongs to the Monterey, Moss Landing, Santa Cruz port complex, received a total of 139,058 commercial passenger fishing vessel landings in 2000, made by a total of 37,884 anglers. The majority of landings were rockfishes, king (Chinook) salmon, albacore tuna, and flatfishes. A 2004 site visit and internet sources confirm that there are at least two sportfishing businesses located currently within the community.³³

Subsistence

The California Department of Fish and Games captures those fishermen that do not earn revenue from fishing, but use it to provide food for personal consumption under their "recreational" data. Hence, specific information on subsistence fishing in Moss Landing is not discussed in detail in this profile due to the lack of available data on both state and federal levels.

Many local community members do engage in subsistence fishing. Both nontribal and tribal fishermen, including members of the Ohlone/Costanoan Esselen Nation, utilize marine and stream resources for subsistence means from the areas within and surrounding Moss Landing. Under the trust doctrine, the federal government is charged to protect tribal resources and by constitutional mandate to protect natural resources. The government-to-government agreements made between tribal groups and the United States through treaties guarantee fishing rights on traditional grounds.

Involvement in North Pacific Fisheries

Commercial Fishing

While one community member worked as a crewmember aboard a vessel involved in North Pacific fisheries, other Moss Landing residents were not involved in the North Pacific commercial fishery in 2000.

Sportfishing

Two sportfishing licenses for Alaska were sold to residents in 2000.

¹ Monterey Bay Kayaks. No date. Moss Landing & Elkhorn Slough: one of the largest coastal wetlands in California, [Online]. Available: URL: http://www.montereybaykayaks.com/info/moss_landing.php (access date - June 2004).

² Roberson, Don. 2000. Elkhorn Slough and Moss Landing, [Online]. Available: URL: <http://www.montereybay.com/creagrus/elkhornslough.html> (access date - July 2004).

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- ⁴ Ohlone/Costanoan Esselen Nation. 2004. Our nation's name, [Online]. Available: URL: <http://www.esselelnation.com/OurName.html> (access date - July 2004).
- ⁵ Ohlone/Costanoan Esselen Nation. 2004. Our history since European contact, [Online]. Available: URL: <http://www.esselelnation.com/OurHistory.html> (access date - July 2004).
- ⁶ Ohlone/Costanoan Esselen Nation. 2004. Ohlone/Costanoan Esselen Nation today, [Online]. Available: URL: <http://www.esselelnation.com/OCENToday.html> (access date - July 2004).
- ⁷ Moss Landing Chamber of Commerce. 2002. Home, [Online]. Available: URL: <http://www.mosslandingchamber.com/index.html> (access date - June 2004).
- ⁸ National Estuarine Research Reserve System. 2004. Elkhorn Slough Reserve, California, [Online]. Available: URL: <http://nerrs.noaa.gov/ElkhornSlough/History.html> (access date - July 2004).
- ⁹ Maritime Museum. 2004. Data collected on a site visit to Monterey, California, September 1-4.
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- ¹¹ Kortum, L. No date. Points of historical interest: Monterey County, [Online]. Available: URL: <http://www.californiacoastaltrail.org/oldsite/monterey.html> (access date - July 2004).
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- ¹³ Monterey Bay Aquarium. 2004. Cannery History Exhibit. Data collected on a site visit to Monterey, California, September 1-4.
- ¹⁴ Pomeroy, C. and M. Dalton. 2003. Socio-economics of the Moss Landing commercial fishing industry: report to the Monterey County Office of Economic Development, [Online]. Available: URL: http://www.psmfc.org/efin/docs/otherpublications/ML_Cmcl_Fishing_Ind_Report.pdf (access date - June 2004).
- ¹⁵ Monterey Bay Aquarium. 2004. Cannery History Exhibit. Data collected on a site visit to Monterey, California, September 1-4.
- ¹⁶ Ameron International Water Transmission Group. No date. Moss Landing power plant, [Online]. Available: URL: http://www.ameronpipe.com/products/ch_moss.htm (access date - July 2004).
- ¹⁷ Pomeroy, C. and M. Dalton. 2003. Socio-economics of the Moss Landing commercial fishing industry: report to the Monterey County Office of Economic Development, [Online]. Available: URL: http://www.psmfc.org/efin/docs/otherpublications/ML_Cmcl_Fishing_Ind_Report.pdf (access date - June 2004).
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- ³¹ ‘NA’ refers to data which was not available, for example, due to few or no recorded permit numbers, or the partially permitted nature of a fishery in 2000.
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