

Año Nuevo Island Light Station



*Documentation of the Light Station Complex
Año Nuevo Island,
Año Nuevo State Reserve, San Mateo County, California*

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Introduction

Operating between 1872 and 1948, the Año Nuevo Island Light Station formed an important part of the aids to navigation along California's coast south of San Francisco. Installed as a result of several catastrophic shipwrecks along the nearby coastline, the station initially contained a fog signal. Later, a light was added, along with an elaborate keeper's dwelling, tramway, dock, boathouse, and various other support facilities. Following the island's abandonment, however, these historic structures were left to deteriorate. Vandalism took an exacting toll, and seals inhabited the interior of the keeper's dwelling. No coordinated efforts were ever made to document or evaluate the historic resources present on the island. Though the historic importance of these buildings was recognized, they were allowed to decay. Maintenance, of course, is very difficult, and funding is limited. Some feared that maintenance, stabilization, or rehabilitation had the potential to negatively impact the animals residing on the island. Nevertheless, the light station complex appeared to be historically significant, potentially eligible for listing in the National Register of Historic Places as a Historic District. A clearer understanding of the complex's contributing and noncontributing aspects was required. Evaluation of the integrity of the existing buildings was also needed. With this information, better management decisions could be made. This then, was the goal of the current project. Funded by a grant from the California Department of Parks and Recreation, Cultural Resources Division, the project seeks to provide a historic context for the light station complex, as well as a basic level of documentation of the remaining features.



Figure 1. Oblique aerial photograph of Año Nuevo Island in the early 1960s. California State Parks

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Methods

During the current project, archival research was performed at a variety of federal, state, local, and private institutions. Documentary resources in California Department of Parks and Recreation possession formed the basis for this research, and provided leads for further research. Offices visited included the following:

- Año Nuevo State Reserve, Headquarters
- Archaeology Laboratory, Sacramento
- Central Records, Sacramento
- Central Service Center, Monterey
- Cultural Resources Division Archives, Sacramento
- Northern Service Center, Sacramento
- Santa Cruz District Office, Felton

Following the collection of secondary sources from the above locations, primary research was performed (in person or by mail) at the following repositories:

- California Historical Society, Baker Research Library, San Francisco
- California State Archives, Sacramento
- California State Library, California Room and Government Publications Section, Sacramento
- National Archives and Records Administration, College Park and Suitland, Maryland and Washington, D.C.
- National Archives and Records Administration, Pacific Branch, San Bruno, California
- Redwood City Public Library, Redwood City
- San Mateo County Museum of History and Art, Redwood City
- San Mateo Coast Natural History Association, Half Moon Bay
- University of California, Berkeley, Bancroft Library
- University of California, Santa Cruz, Special Collections Library
- U.S. Coast Guard, San Francisco
- U.S. Geological Survey, Menlo Park
- U.S. Lighthouse Society, San Francisco

In the past, lighthouse keepers and their descendents have provided important information on their experiences on Año Nuevo Island. These recollections were gathered and reviewed during the archival research phase of the project. Attempts to re-contact these people were also made, though unsuccessfully.

Fieldwork

Although the entire island was surveyed for archaeological resources in 1984, none were found. In 1982, a Historic Resources Inventory was completed for several of the structures on the island (Woodward et al. 1982). Several of the photographs from that inventory project are included in this report in order to illustrate changes occurring to the island since that time. For the current project, two trips were made to the island by the

author during April and May of 2005. The purpose of these trips was to document the remaining historic resources on the island. Photographs were taken of each of the structures and features, locational data was gathered (using a handheld GPS unit), and measurements of some of the standing buildings were made. The goal of this fieldwork was to document the structures to the level of the DPR 523A and B records. Unfortunately, access to the island is limited due to sensitive bird and pinniped species residing there. The keeper's dwelling, in particular is off limits for most of the year. For the rest of the island, access is only allowed via a recently constructed boardwalk, in order to not disturb several species of birds.

Historic Context

Various means by which to warn and direct mariners have been used since man first ventured into the open water. Though early warnings systems often consisted of signal fires on promontories overlooking the water, lighthouses themselves have been in use since ancient times. The first recorded lighthouse was at Alexandria Egypt, built in 285 B.C. In North America the first lighthouse was built on Brewster Island in Boston Harbor in 1716 (Welts 1969).

In the United States today, there are numerous types of lighthouses and light stations representing many architectural styles. The country, in fact, has the largest number of lighthouses, which are also the most architecturally diverse of any country in the world. Though their origins were in simple lamps, eventually the following features would encompass the aids to navigation used throughout the country:

- Manned lighthouses
- Unmanned lighthouses
- Sound signals (fog signals)
- Range lights (pairs of lights)
- Daymarks (beacons)
- Lightships (floating light stations)
- Buoys

U.S. Lighthouse Service

During the pre-federal period, lighthouses were owned and operated by the individual colonies and successor states. They were largely paid for by assessments on ships coming into port. In order to discontinue the act of states assessing others unfairly, Congress placed the jurisdiction of lighthouses under control of the Treasury Department in 1789. An act of August 7, enabled the states to transfer their lighthouses and lighthouse sites to the federal government, and vested their oversight in the Secretary of the Treasury. Secretary of the Treasury Alexander Hamilton personally reviewed contracts as well as the appointment of keepers before sending the documents to President Washington for his signature. Responsibility for the U.S. Lighthouse Service (the name given to federal lighthouse operations and lighthouse site maintenance) was delegated by the Secretary of the Treasury to the Commissioner of Revenue in 1792. In 1820, Stephen Pleasonton, the Firth Auditor of the Treasury, was assigned the responsibility of the administration of the nation's lighthouses and other aids to navigation. He administered the U.S. Lighthouse Service for the next 32 years. The number of lighthouses grew dramatically during this period.

Initially, lights themselves consisted of lamps with wicks that needed constant tending, with the lamps themselves needing to be trimmed every few hours. By 1810, a lighting system was developed by Winslow Lewis that consisted of lamps and reflectors that provided a great improvement over earlier lighting. Utilizing what was known as an Argand lamp, Lewis' light consisted of a parabolic reflector system that provided a brighter light and used less oil than previous lights. They were installed soon thereafter in

most U.S. lighthouses. Unfortunately, the U.S. government would become so wed to this design, that latter improvements would not be adopted for many years thereafter.

Under the U.S. Lighthouse Service, the nation was divided into 8 districts, with a naval officer assigned to each. The officer examined the condition of existing lighthouses and made recommendations for sites for new ones. As the result of numerous complaints, Congress commissioned an investigation into the country's lighthouse system. The investigation determined that many of the nation's lighthouses were poorly maintained. Further, it was noted that new advances were not being implemented. While U.S. lighthouses used the Argand lamp and parabolic reflector system, most European countries had adopted the new Fresnel lens. Invented in 1822, by Augustin Fresnel, the lens was far superior to any previous lights. It contained a single lamp with prisms at the top and bottom that refracted the light such that it emanated from the lens in a narrow sheet. The light was also intensified at the center by a powerful magnifying glass. The result was a bright, narrow sheet of concentrated light. Unfortunately, the federal government stubbornly stuck with the older, inferior Lewis-developed lamp, greatly hampering the abilities of the country's lighthouses. Another problem besetting the nation's lighthouses was the lack of a notification system that would inform mariners of new navigational aids, or changes in the existing array. For these reasons, the U.S. was far behind most European countries. In an effort to improve the system, a 9 member Lighthouse Board was created in the Department of the Treasury by an act of August 31, 1852. Oversight of the nation's lighthouses was transferred, October 9, 1852, to this board.



Figure 4. Fresnel Lens from the Angel Island Lighthouse

U.S. Lighthouse Board

The Lighthouse Board was composed of those who performed the earlier investigation, including prominent military officers and civilian scientists. Soon thereafter, the country was divided into 12 lighthouse districts, each with an inspector. The Lighthouse Board attempted to play “catch-up,” by applying new technologies to the country’s lighthouses. Fresnel lenses were installed, and more advanced construction techniques were used on the light stations. Advances in the technology of fog signals were developed, providing each with a unique sound. The new technology was soon applied to those in service, as well as those under construction. The first lighthouse on the west coast was also built during this period. Over the next several decades, the Lighthouse Board succeeded in standardizing the nation’s lighthouses, improving their technology, and creating a group of professional lighthouse keepers (National Park Service 2001).

Bureau of Lighthouses

The Lighthouse Board was transferred to Department of Commerce and Labor on February 14, 1903. The board was re-organized and re-designated the Bureau of Lighthouses by an act of July 27, 1910. The Bureau hired a number of civilians, replacing military officers in many important roles. As a result, the agency became more civilian in nature. President Taft selected George R. Putnam to serve as the head of the new bureau. Over the next 25 years, Putnam strove to improve the technology of the country’s aids to navigation, and the number of which more than doubled during his tenure.

The Bureau of Lighthouses was assigned to the Department of Commerce when the latter was separated from the Department of Labor on March 4, 1913. During World War I, several technological advancements contributed to the automation of lighthouses, which eventually precluded the need for human occupancy of the stations. Improvements such as automatic radio beacons, automatic time clocks, photo electric-controlled alarm devices, and battery-powered buoys changed the nation’s aids to navigation into an automated system. By the late 1920s, most light stations had electricity, which further reduced the number of staff required to run them (National Park Service 2001).

U.S. Coast Guard

The Bureau of Lighthouses was abolished on July 1, 1939, with its functions transferred to the U.S. Coast Guard. The Coast Guard had been established on January 28, 1915, within the Treasury Department, merging the Revenue Cutter and the Life Saving Services.

Several new technologies were proven during World War II, including radar and radio. These developments, joined together with the development of short-range aids to navigation (SHORAN) and long-range aids to navigation (LORAN), lighthouses became increasingly obsolete. By the end of the war, the Coast Guard sought to automate as many of the lights as possible. This was accomplished for several reasons, including reduction of cost, removing personnel from isolated and hazardous locations, and making billets for reprogramming. This effort was partially successful, and by 1962, only 327 lighthouses were still manned. In the mid-1960s, the Lighthouse Automation and

Modernization program (LAMP) further reduced the need for lighthouses and their personnel. Under this program the Coast Guard utilized automated beacons in place of the traditional lighthouse towers. With personnel no longer occupying the old stations, many fell into disrepair. Animal infestation, moisture intrusion, rust, corrosion, and vandalism all took their toll. By 1990, all but one lighthouse (Boston Lighthouse) had been completely automated.

In the ensuing years, the Coast Guard began to construct aids to navigation on steel structures or buoys, instead of inside the lantern of a traditional lighthouse tower. As such, the old buildings themselves were further neglected and abandoned. Only through grass-roots efforts have many historic light stations been preserved. Increasingly, the Coast Guard leased the buildings to interested historical groups, and has transferred lighthouses to other agencies (National Park Service 2001).

Jurisdiction over lighthouses in the United States
Department of the Treasury
Lighthouse Service (1792-1852)
Revenue Marine Division (1843-49, 1871-94)
Revenue Cutter Service (1894-1915)
Life Saving Service (1871-1915)
Steamboat Inspection Service (1852-1903)
Bureau of Navigation (1884-1903)
Bureau of Customs (vessel documentation functions only, 1942-1966, to USCG)
Department of Commerce and Labor
Lighthouse Board (1903-1910)
Bureau of Lighthouses (1910-1913)
Steamboat Inspection Service (1903-1913)
Bureau of Navigation (1903-1913)
Department of Commerce
Bureau of Lighthouses (1913-1939, functions to USCG 1939)
Steamboat Inspection Service (1913-1932)
Bureau of Navigation (1913-1932)
Bureau of Navigation and Steamboat Inspection (1932-1936)
Bureau of Marine Inspection and Navigation (functions relating to vessel inspection, navigation, and merchant seamen, 1936-1942, to USCG)

Table 1. Jurisdiction over U.S. Lighthouses

Facilities

Though often used interchangeably, lighthouse and light station have distinct meanings. The U.S. Lighthouse Service's 1915 definition of a lighthouse was "a light station where a resident keeper was employed." Today, the definition is broader, with lighthouses being structures or towers built in strategic locations to contain and elevate lights. The lights themselves are considered the aids to navigation. Light station refers to not only the lighthouse itself (or the tower for the light), but all the buildings supporting the lighthouse, including keeper's dwelling, cisterns, boathouse; as well as other aids to navigation such as fog signals and their support structures.

In the early years of light stations, facilities generally included the light tower, a dwelling, a garden site, a place to store oil, and some kind of animal husbandry facilities for supplemental food (chicken coop, small cow barn, etc.). This model gradually changed with the increased sophistication of aids to navigation. More support structures were needed as new technologies were brought into play, such as the Fresnel lens and more advanced fog signals. Facilities such as workshops, garages, boathouses, tramways, and fuel storage buildings were required by the 1850s. New employees were also necessary for the operation of the increasingly sophisticated light stations, and additional residences were constructed to house them.

According to some sources, designs of lights and light stations were left to the district in which the station was situated. This responsibility resided with the district engineer, who was to make a personal inspection of each site, then submit plans for the construction. In some cases, however, designs were developed in Washington, D.C (Roland 1991).

Typical facilities on most light stations consisted of the following:

Light Tower

Several different construction techniques and styles were used in light towers. Screwpile, caisson, and skeletal tower lighthouses were all technological developments that led to improved light facilities. Today, the various types can be categorized into the following types:

- Wood tower
- Masonry tower
- Wave-swept tower
- Concrete tower
- Cast-iron tower
- Skeletal tower
- Straightpile
- Screwpile
- Crib
- Caisson
- Texas tower

Lighthouses themselves were built with a variety of materials including wood, stone, brick, reinforced concrete, iron, and steel. Brick and stone masonry were the most widespread, as lighthouses had to be built of durable material to withstand harsh conditions. A tower served as a support for the lantern, which housed the light itself. The lantern generally consisted of a round, square, octagonal, or decagonal-shaped enclosure. These were generally made of cast-iron, and were surrounded by a stone or cast-iron gallery with railing. Stairs (of varying types) led to the lantern at the top of the tower. A watch room was in place at the top of the tower where an employee would maintain the light and ensure its proper functioning. The lantern room itself was generally above this room. Other features often included ventilators, lightning-conductor spindles, lantern ladders for cleaning the plates, curtain hooks, and others (U.S. Lighthouse Establishment 1907).

Regional differences affected the type of facilities installed. Lighthouses on the east coast tended to have tall towers to elevate the lens high enough to be visible at sea for several miles. On the west coast, however, shorter towers were built on rocky cliffs, high enough to project out to sea.



Figure 5. Point Sur lighthouse, ca. 1920s. California State Parks

Lantern

Prior to the adoption of the Fesnel lens, there was no standard design for lanterns. Early lanterns consisted of thin copper frames holding small panes of glass. Fresnel lenses, which were adopted in the United States by the 1850s, came in seven standard orders or sizes, depending upon the power of light needed (1st order being the brightest). Four sizes of lanterns were established to house these different orders. The lanterns consisted of cast-iron plates, in 6, 8, and 10 sides, with large panes of glass set in metal panels. One set of these metal panels were hinged to allow access to the lantern. In the late nineteenth century, the helical bar lantern was introduced, which contained diagonal astragals as opposed to the earlier vertical ones. Fuel was brought to the wick for the light in a variety of ways, including what was termed Carcel, Lepaute, and Funck methods (the latter of which was employed at Año Nuevo Island). By the 1850s, fuel used in the lights consisted of whale oil. New kinds of oil were experimented with over the next several years, and by the early 1870s, kerosene began to be used in place of earlier oils. By the turn-of-the-century electricity was tested by the Lighthouse Board in some lighthouses, though it was not until the 1920s that most were completely converted (Holland 1988).

Keeper's Dwellings

Early light stations generally had only one keeper, and as such, one dwelling. Following the creation of the Lighthouse Board in 1852, and the application of the Fresnel lens, more keepers were assigned to each station. Often, the additional housing needs were met with duplex, triplex, or quadplex dwellings. By 1913, however, the Lighthouse Board favored separate housing (as opposed to the attached), following complaints of lack of privacy. As lighting apparatus grew heavier, towers were often constructed over the keeper's dwelling to provide additional foundational support. Generally, the dwellings adapted to the latest architectural styles, as well as to geographical conditions. However, there are many exceptions to this, particularly in the west.



Figure 6. Keeper's Quarters at Point Cabrillo Lighthouse, 1924. California State Parks



Figure 7. Wood End Light Station, Massachusetts

Oil Houses

Fuel oil was predominantly stored in the lighthouse in the early years, but by the early 1850s it was stored in basements or attached structures. By 1890, however, most lighthouses were using kerosene, which necessitated the construction of separate structures built of brick, stone, or concrete.



Figure 8. Pigeon Point Lighthouse showing attached oil room and shop structure. California State Parks

Fog Signal Buildings

Designed to assist mariners in heavy fog, fog signals were constructed in those parts of the country where fog was common and prevalent (including much of the west coast). The nation's earliest fog signals were cannons. Fog bells were first employed in the 1820s, which were rung by hand. By the 1850s, other signals were experimented with, including whistles, horns, and trumpets. Eventually (1860s), a mechanical means was developed whereby bells could be rung automatically. The first siren fog signal was used in 1868. By the late nineteenth century, steam-operated whistles were installed in many places. These were fueled by cordwood or coal, which had to be supplied in large volume to the station. Often, up to an hour was required in order to produce enough pressure to sound the whistle. These steam whistles required a great deal of maintenance and periodic care. Each fog signal station sounded its own distinctive sound pattern so that mariners could locate themselves. Following the turn-of-the-century, a Canadian invention known as the diaphone, which were diesel-powered, air-pressure phones that gave off a two-tone sound were also used. Another invention in the 1920s, called a hydroscope, measured moisture in the air, and automatically activated the signal when moisture levels were high. Eventually, electricity was applied to fog signals beginning in the 1920s, greatly reducing the need for their tending. Radar and other electronic aids to navigation eventually made fog signals completely obsolete by the 1970s.

The earliest structures to house the fog signals were wood or iron bell towers. On some stations, the fog signals were installed on the light tower, outside the top of the keeper's dwelling. As signals became more sophisticated, a large amount of equipment was required, including steam or compressed air apparatuses, switchboards, generators, engines, tanks, pumps, and tools. These were housed in the fog signal buildings, located in stand-alone buildings, often barn-like in appearance. They were generally simple in plan and design.

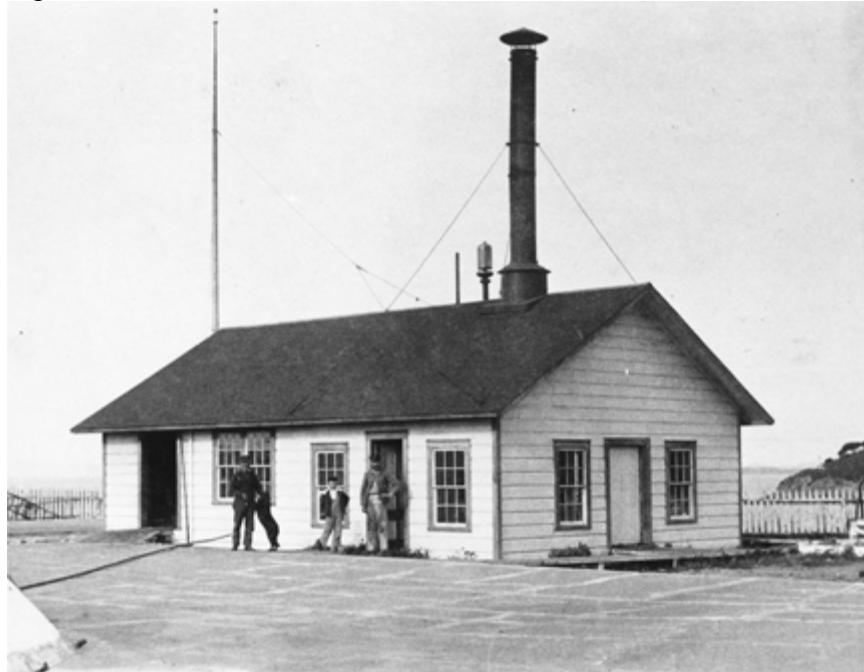


Figure 9. Fog signal building at East Brother Lighthouse. Steam whistle is immediately to left of large smokestack. Photograph by Nels Stenmark



Figure 10. Fog horn building at Split Rock Light Station, Minnesota. Photograph by Dave Wobser.



Figure 11. Combination fog signal and lighthouse building at Point Cabrillo, ca. 1930s.

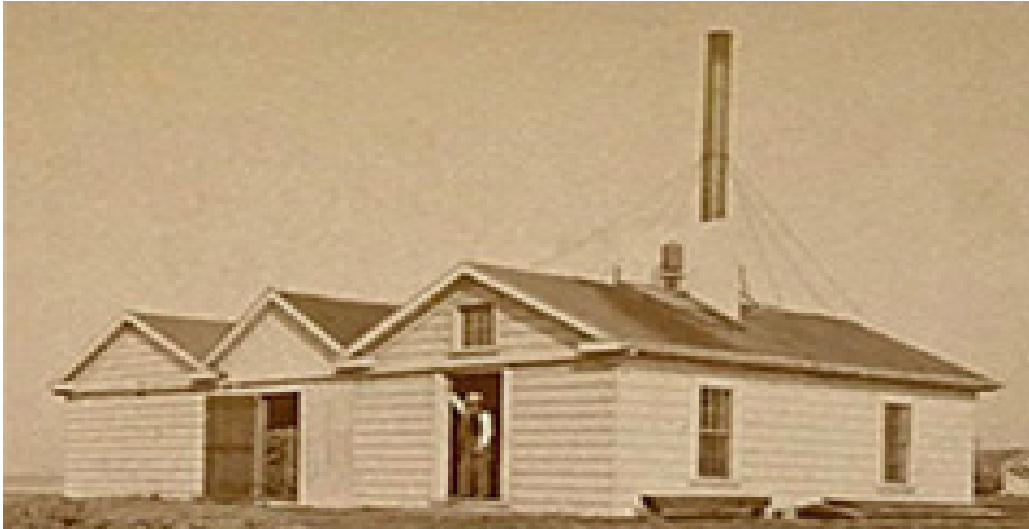


Figure 12. Original fog signal building at Pigeon Point, built in 1872. California State Parks

Boathouses

Only those light stations located offshore needed boats, and eventually, the Lighthouse Board authorized the construction of boathouses at some of these stations. Most were simple buildings, with iron rails on which to pull the boats in. Generally, two boats were assigned to each offshore station, which hung suspended from davits on opposite sides of the building. Boats were permitted not only for the daily business of the station, but also for the rescue of fishermen and other kinds of boaters in trouble, as well as downed planes.

Barns and Garages

Some light stations included barns where horses or a cow could be sheltered. Some later stations contained automobile garages. Store houses were also frequently constructed to store equipment, provisions, spare parts, and wood.



Figure 13. Barn at Point Sur, 2002, California State Parks

Privies

Early stations relied on privies prior to the construction of sewer systems. Many isolated stations relied on privies far longer than those stations closer to urban areas. Most offshore stations, for example, used privies, as the installation of sewer systems was prohibitively expensive. Most of these offshore privies emptied directly into the sea. Like those built onshore, these structures were simple, unadorned one-room facilities usually made of wood.

Water Collection and Storage Systems

While some stations were fortunate enough to contain wells or have access to springs, many others did not. To provide water for drinking, washing, and for steam-powered whistles, collections systems were developed. Rain water was collected from the roofs of structures and channeled into reservoirs. Large catch basins (known as water or rain sheds) were used in drier regions where rainfall was light. These catchment basins were made of either cement or brick covered with cement, and were connected to storage cisterns and tanks. Many stations contained water storage tanks generally elevated above the ground on tank buildings.

Tramway/Catwalks

Tracks were constructed to run from landings to the light or other buildings on the station, for purposes of transporting supplies and equipment. Many stations also contained catwalks that provided the keepers with access to the light from their quarters. These were particularly necessary in those stations that were subjected to severe weather.

Keepers

Those placed in charge of the lighthouses and stations were known as keepers. They were given strict instructions regarding the lighting, maintenance, and cleaning of the lamps; keeping track of and maintaining stores of oil; absence from the lighthouse; and correspondence with the superintendent. They were forbidden to sell or allow to be sold any liquor on the grounds of the light station. These rigid instructions and requirements were maintained over the years, and enforced by manuals of instruction. Inspectors visited the stations within their districts quarterly. In the *Instructions to Employees of the Lighthouse Service*, written in 1881, strict regulations were set forth:

The Keeper is responsible for the care and management of the light, and for the station in general. He must enforce a careful attention to duty on the part of his assistants; and the assistants are strictly enjoined to render prompt obedience to his lawful orders.... Light-keepers may leave their stations to attend divine worship on Sundays, to procure needful supplies, and on important public occasions...

Watches must be kept at all stations where there is an assistant. The keeper on watch must remain in the watch room and give continuous attention to the light while he is on duty. When there is no assistant, the keeper must visit the light at least twice during the night between 8 p.m. and sunrise; and on stormy nights the light must be constantly looked after"... He must be careful to prevent waste, theft, or misapplication of light-house property...

Light-keepers must not engage in any traffic on light-house premises, and they must not permit it by any one else. They must not carry on any business or trade elsewhere which will cause them to be often absent from the premises, or to neglect, in any way, their proper duties...

The visits of the Inspector or Engineer, or of the lampist or machinist, and an account of any work going on or delivery of stores must be noted; as also any item of interest occurring in the vicinity, such as the state of the weather, or other similar matter. The books must be kept in ink, with neatness, and must always be kept up to date [as quoted in National Park Service 2001]

In the section entitled *Care of Lights and their Appurtenances*, detailed instructions were provided on the care of the optics. The keepers were to hang lantern curtains each morning and to wear a linen apron to protect the lens. The lens and lantern glass were to be cleaned daily, and rouge was used to polish it, and a "rotten-stone" to shine the brass. Keepers were required to cut replacement glass for the lantern when necessary. The revolving clockwork and carriage rollers were to be kept properly oiled. The last section, entitled *Allowances of Provisions* included descriptions of provisions for what were considered particularly isolated stations. The allowances, amended in 1883, provided for the following:

Beef 200 pounds
Pork 100 pounds
Flour 1 barrel
Rice 25 pounds
Beans 10 gallons
Potatoes 4 bushels
Onions 1 bushel
Sugar 50 pounds
Coffee 24 pounds
Vinegar 4 gallons[as quoted in National Park Service 2001]

Standardized logs were developed in which the keepers were to record activities occurring on the station, expenditures, shipwrecks, and other information. By 1852, the appointment of keepers was restricted to those between the ages of 18 and 50, who could read, write, keep accounts, perform routine manual labor, pull and sail a boat, and make minor repairs to structures and equipment. Keepers were frequently retired sea captains. Assistants were often young men with some sea experience. Fog signals required assistants with some mechanical experience. By 1883, keepers were issued uniforms consisting of coat, vest, trousers, and cap in a dark indigo blue color.

Lighthouses in California

No lighthouses had been built in Alta California during the Spanish or Mexican periods. When the territory was added to the United States following the Mexican War, the federal government faced a difficult task in providing aids to navigation along this long and jagged coastline. During the Gold Rush, ship traffic to California ports increased dramatically. The state's population exploded to 255,000 by 1852, and that same year a total of 1,147 ships arrived in the port of San Francisco. Obviously, aids to navigation were necessary, particularly given the rugged nature of the California coast. The U.S. Lighthouse Service petitioned Congress for lighthouses on the west coast, and money was first appropriated for lighthouses in California in September of 1850, only a few months after statehood. The U.S. Coast Survey was given the responsibility of determining the actual sites for the new lighthouses. As a result, 16 lighthouses were slated for construction on the west coast, 8 of which were to be built in California. Contracts were made with the firm of Gibbons and Kelley. The contract called for a Cape Cod-style structure, consisting of one and one-half stories with the light tower in the middle of the building. The first was built on Alcatraz Island in San Francisco Bay, finally lit on June 1, 1854.

Following the establishment of the U.S. Lighthouse Board, California was included in the area of the 12th District, with headquarters in San Francisco. It appears that the Lighthouse Service did not draw upon local architectural traditions when designing its west coast light stations. The Cape Cod style continued to be applied most frequently. All of the first light stations in the west coast built in the years between 1852 and 1858 in fact used this style. The design for these structures was developed by Ammi Young, a prominent architect who was employed by the Treasury Department.



Figure 14. Point Pinos Lighthouse, 1990. NPS photo by Candace Clifford

Año Nuevo Island

Spanish Explorations

The land encompassing what is now California remained largely un-exploited during its control by Spain. Nevertheless, the conquest of Mexico during the 1520s, and the development of the port of Acapulco gave the Spanish a base for operations farther north along the Pacific coast. During the 1540s, Portuguese explorer Juan Rodriguez Cabrillo, acting on behalf of the Spanish Crown led the first naval expedition to explore the coast of California, and claim the land for Spain. Cabrillo was in search of a passage between the Atlantic and Pacific, known as the Strait of Anian. His command consisted of two ships (or three depending upon the source), and 250 men. Only a few years earlier, California was thought to be an island, illustrating how limited the knowledge of this area was. After stopping for a short period in present-day Ventura, his party sailed west through the Santa Barbara Channel. Cabrillo broke his arm (or leg) on San Miguel Island that month, the wound never completely healing, and likely became infected. The flotilla continued its explorations of the California coast, ranging as far north as the Russian River. Bad weather forced them back to the well-known safety of the Santa Barbara Channel. The broken arm (or leg), however, eventually got the better of him, and Cabrillo died as a result of the unhealed injury in January 1543 (Schoenherr et al. 1999:266). Cabrillo passed near Año Nuevo, and though some scholars claim he made no note of Año Nuevo point, others claim he called it “Cabo de Nieve” (Snowy Cape). Cabrillo and other subsequent explorers did, however, note the extensive populations of seals and other marine mammals during their journeys through the region.

Cabrillo’s and latter expeditions failed to find the riches so manifest in Mexico, and interest in the area soon waned. California was largely left to its original inhabitants, who were scattered in villages along the coast. California waters were, however, regularly visited by Spanish vessels, particularly the huge treasure ships out of the Philippines, which began their rounds during the 1560s.

Sebastian Vizcaino was sent to explore the coast of California in 1602, to locate a good harbor in order to protect Spain’s highly prized Philippine shipping routes. His fleet consisted of three ships, which departed Acapulco in January. By December, the party reached the Santa Barbara Channel. Pressing northwards, the fleet eventually came to Monterey Bay. Vizcaino and his fleet reached the Año Nuevo area soon after New Years day of 1603, and the expedition’s chaplain and diarist, Father Antonio de la Ascension labeled the point on his map “Punta de Año Nuevo.” The expedition, in fact, believed the point was the north end of Monterey Bay (Le Boeuf 1975:1; Holland 1963:149). After Vizcaino’s expedition, there was virtually no Spanish exploration of Alta California for over a century and a half.

American Period

Following the Gold Rush, large numbers of Americans began arriving in California. In 1850, California became a state, and thousands of acres of rancho property that had been granted to Mexican citizens began to be turned over to Americans. In 1851, Isaac Graham acquired the Rancho Punta de Año Nuevo north of Santa Cruz from the heirs of the

original owners (the Castro family). Although he did not live on the rancho, he leased much of the land out for cattle ranching. Some reports claim that he constructed one of the first houses in the area, known thereafter as the Isaac Graham House on Whitehouse Creek. There were very few other buildings in the area at the time.

Because of financial difficulties, Graham was unable to hold onto Rancho Punta de Año Nuevo, and it was sold at public auction in 1862 to John H. Baird, for \$20,000. Baird quickly turned the property around to Loren Coburn for \$30,000. Coburn had arrived in California in 1851, and built a fortune in the livery business in San Francisco and Oakland. Coburn purchased both Punta de Año and Rancho Butano with his brother-in-law Jeremiah Clark. After largely buying out Clark, Coburn became the owner both of these immense ranches. Coburn was a shrewd businessman and soon leased much of the land to a northern California dairy enterprise operated by the Steele Brothers. The Steele dairies soon thrived along this portion of the coast.

Soon after arriving, the Steele's gave William W. Waddell (who was living in a canyon to the south) a right-of-way across their land in order to build a landing and wharf. Waddell, like others in the area, built a saw mill on his property, and hoped to find a better way to get his lumber to market. Waddell constructed the wharf approximately 500 yards west of Año Nuevo Creek, where the water was deep and there were no dangerous reefs. By 1864, Waddell had completed the 700-foot wharf, complete with swinging chute at the end to serve deep water schooners. By 1867, the wharf was handling two million feet of lumber per year. For the next 13 years, this wharf served Waddell's mill, the Steele's mill, and others in the region. A lumber yard, warehouse, store, and other buildings were built at the landing to the wharf, and soon became known as Waddell's Landing. Lumber was carried in four-horse flat cars, and large bundles of shingles from nearby mills were sent by a slide to waiting schooners (Stanger 1963). As such, Point Año Nuevo served as a shipping location for locally produced lumber as well as dairy products from nearby farms.

A Dangerous Coastline

Point Año Nuevo, Pigeon Point, and Franklin Point, all presented hazards to ships passing along the coast. They each contain a low profile of rocks projecting into the sea. Point Año Nuevo Point was described aptly by Col. Albert Evans: "It is a place where black reefs of rock rear their ugly gangs, like wild beasts waiting for their prey" (as quoted in Le Boeuf 1981:37). As early as 1853, the U.S. Coast Survey began charting the Pacific Coast, including the area along Point Año Nuevo. Coast Survey Assistant, A.M. Harrison led a party along the landward side of Monterey Bay. His recommendations (submitted in an 1855 report) included building a lighthouse at Santa Cruz, but perhaps more urgently one at Point Año Nuevo. Harrison expressed the need:

...Point Año Nuevo possesses all the requisites as a site for a guide to Santa Cruz harbor, and would also prove of advantage to vessels in the coasting trade. This point once made, it becomes a matter of little difficulty to reach Santa Cruz; and vessels from the northward, bound to Monterey, and even up and down the coast,

would find a light here very serviceable... [as quoted in Perry 1982:20].

While another surveyor, Lt. Commander T.H. Stevens recommended the establishment of a lighthouse on the island, Harrison believed it should be placed on the point on the mainland. This would make it far easier to service. Though other Coast Survey personnel agreed with the recommendations that a lighthouse be built at Año Nuevo, a lighthouse at Santa Cruz was authorized and constructed first. This would not happen until the late 1860s, however. There were several reasons for the delay, including title to the land, the coming of the Civil War, and lack of funding.

With the thriving shipping activity, numerous wrecks occurred along this treacherous stretch of coastline. One of the earliest recorded wrecks was the *Carrier Pigeon* on June 6, 1853, and leading to the change in the name of the point from Whale to Pigeon Point. The *Carrier Pigeon* was a merchant clipper ship, departing from Boston in January 1853, sailing around Cape Horn to the California coast. As thick fog obscured the shoreline, the ship ran aground and eventually broke apart. Although no lives were lost, the entire cargo was. On January 17, 1865, another clipper, the *Sir John Franklin* on its way to San Francisco from Rio de Janeiro broke apart on the rocks between Pigeon and Año Nuevo points. The dense fog made visibility virtually zero, and the ship became lost. A great deal of cargo, including coal oil, hundreds of barrels of spirits, candles, along with cases and bales of other goods floated ashore (*Alta California* 1865 20 January). The crew attempted to reach shore through the treacherous surf, but only three made it. Thirteen died, many of whom were buried on the point. As a result, the site was named Franklin Point thereafter. Amazingly, much of the salvageable cargo was returned to the owners by locals who had collected it from the beach. One of the most infamous wrecks was the *Coya*, on November 24, 1866, which while in deep fog hit a reef and sank quickly. Again, weather was to blame as the ship became lost in the dense fog, and for two days had no visual observation. Only three people out of the 30 on board survived. The victims were also buried at Franklin Point, adjacent to those drowned previously. It was perhaps this wreck more than any other that prompted the call for a lighthouse in the vicinity of Point Año Nuevo.

Date	Ship	Location	Type
1853	Carrier Pigeon	Pigeon Point	Clipper Ship
1865	Sir John Franklin	Franklin Point	Clipper Ship
1866	Coya	Pigeon Point	British Iron Bark
1868	Hellespont	Pigeon Point	British Ship
1887	J.W. Seaver	Point Año Nuevo	Bark
1896	Columbia	Pigeon Point	Steamer
1913	Point Arena	Pigeon Point	Steam Schooner
1929	San Juan	Pigeon Point	Liner

Table 2. Shipwrecks near Point Año Nuevo

Government Ownership of the Island

As such, in 1867, a reconnaissance of the coast between Santa Cruz and San Francisco was made in order to determine the locations for lighthouses. One of the places found to be the most critical was Point Año Nuevo. The most likely place for a lighthouse was on the island immediately offshore. Soon thereafter, the island was reserved by the President for lighthouse purposes. Loren Coburn, however, claimed ownership of the island and demanded a large sum for it. Wrecks continued, including the *Hellespont* at Pigeon Point on November 21, 1868. Warning signals were the first safety features installed along the coastline soon after this disaster. The mainland at Point Año Nuevo meanwhile was offered to the government by owners who had recently acquired it, 25 acres for \$5,000. Coburn feared that a lighthouse would be built at this location, thereby eliminating any need for his property. As a result, he offered to sell nearby Pigeon Point in 1869 for \$5,000. The government, because of its previous dealings with Coburn, was ready to build the station at Point Año Nuevo if any delays in obtaining title to Pigeon Point were anticipated (U.S. Lighthouse Board 1869). Coburn gave in, and finally the island was acquired by deed on May 18, 1870. The government paid Loren Coburn and Jeremiah Clarke (who retained an interest in part of the property) \$10,000 for the land, which included two tracts of land at Pigeon Point as well. The deed also provided for a 40-foot right-of-way to the point from the main road, providing the government with access to the island from the mainland.

In 1870 appropriations were made to establish a light at Año Nuevo. Because of delays, the appropriations reverted to the treasury in July of that same year. Beginning in 1871, the government leased the island to Joseph King for \$100 per year, to be used for seal hunting only. Finally, in 1872 monies were made available again, and a steam fog whistle, together with a keeper's dwelling was built on the island. The facilities were apparently constructed under the supervision of Phineas Marston, who had also overseen construction of the Pigeon Point Lighthouse (Perry 1999), and several others. The station became operational on May 29 (U.S. Lighthouse Board 1872).



Figure 15. “New Years Island, Fog Whistle, blasts of 15 seconds with intervals of 45 seconds.” ca. late 1870s. Stereographs from the Pacific Coast series, E. Muybridge: Photographer, PC-RM-Stereos: Box 03, Courtesy California Historical Society, FN-36238.

Fog was particularly troublesome along this section of the coast, and a number of light stations began as fog signal stations. A fog bell was placed at Yerba Buena Island in the San Francisco Bay, for example, in 1874, a year before a light was installed there. Another fog signal was installed at Lime Point near the Golden Gate in 1883, eighteen years prior to the establishment of a light there (Holland 1988).

The combination of the fog whistle at Año Nuevo and a coal-oil light at Pigeon Point (built in 1872) were deemed the best way to warn the ships of danger along this stretch of coast. The Lighthouse Board published a notice regarding the new whistle on June 19, 1872, indicating that blasts of 15 seconds were separated by 45 second intervals (Henry 1872). The wood frame gable building was constructed in an L-shape, with shiplap siding. The whistle required roughly 50 tons of coal per year to keep it operating. This was supplied to the island by ship. Because of the treacherous water surrounding the island, a row boat carried the coal, supplies, and equipment from a buoy tender ship to a small pier on the island. Two keepers were initially installed on the island, living in a 36 x 28 foot, one and a half story building, painted “light buff, with brown roof” (Davidson 1889:152).

While men were employed on the island to maintain the fog signal and light, several seal hunters were camped on the point in the early 1870s. A group of 6-8 men were employed (likely by Mr. King, who was leasing the island) to hunt elephant seals, killing from 5 to 20 per day. The skin, oil, and other body parts were sold, while the rest was thrown back into the ocean (*Santa Cruz Sentinel* 1875 18 June). A few years later, the crew from a schooner named *New York* landed on the island with the intent of hunting seals. Despite warnings by the keeper (Thomas Owens), that this activity was prohibited, they continued hunting for several days (U.S. Treasury Department 1879).



Figure 16. Año Nuevo Island light station sometime around the turn-of-the-century taken from the channel separating the island from the mainland. Courtesy of Department of Special Collections, Stanford University Libraries.

The island then, as it is today, was isolated. Approaching it from the sea was treacherous due to high surf. Approaching from the landward side was also fraught with peril and difficulty due to currents and breakers. Despite the government’s right-of-way, there was no road to the point, which was completely covered with sand. In 1875, a small party of visitors journeyed to the island, and described the trip in the *Santa Cruz Sentinel*. A Captain Scott was in charge of the island at that time, with a Mr. Lature as assistant. The

party was brought to the island by elephant seal hunters in their small whaling boat. They were greeted by Scott and Lature, and were carried from the landing to the fog signal building in a coal car on the tramway. The tramway made a broad curve on the island on its way to the fog signal building (*Santa Cruz Sentinel* 1875 18 June). The coal shed was located at the landing, for ease in unloading from the boats.

In July 1880, a second fog signal whistle, together with boiler and engine was installed. By the next month, the existing fog signal building was enlarged. In 1881, it appears that a new fog signal building was constructed to house the newer equipment. A cistern and water-shed were constructed to supply the fog signal. The water-shed consisted of a broad cemented area, tapering at the bottom to a cistern which collected the rainfall. Later, this water was pumped into a tank which was gravity-fed to the residence. A new coal house was built, and the dwelling for the keepers was also repaired and painted during that same month. That same year, electrical call bells were installed between the signal and dwelling, the tramway was repaired, and the old boiler and engine of the fog signal was overhauled and repaired. A large quantity of grass seeds was sent to the island and planted to arrest the drifting sands. This met with limited success, however. Another attempt involved the construction of drift fences. Walkways were also installed on the island. Proposals were made for further improvements on the island, including a sea wall, which would address the erosion from wave action occurring immediately adjacent to the fog signal house (U.S. Lighthouse Board 1880). This continued to be a problem for years.

In 1883, pumps were installed for the kitchen in the keeper's dwelling, as well as for the cistern. In 1885, a 450' long, ¾" pipeline was installed between the dwelling and the fog signal, as well as to the cistern (U.S. Lighthouse Board 1885).

In June 1886, the much needed sea wall was constructed. The wall was designed to protect the fog signal building and the water-shed from the erosion of the sea. Several reports, in fact, remarked on the erosion occurring to the area immediately adjacent to the fog signal building and water-shed. The cement wall was 70' long, averaging 23' tall, varying in thickness between 1'-1'6." Apparently, it was extended at some point to 180' long. A cave north of the fog signal was also filled with cement (14' long x 2' wide x 2' deep). Portland cement was used in all these projects. The upper line of the water-shed was also repaired at that time, as it had eroded away. A stone wall was installed along the exposed edge of the water-shed, with the cemented surface built to join with this wall. Stones were placed over areas of blowing sand (covering approximately 3,700 square feet). Fencing consisting of barrel staves and brush was also placed around this area, to serve as a kind of drift fence to retain the sand (U.S. Lighthouse Board 1886).

Crossing the channel to the island from the mainland to the island was, and continues to be extremely treacherous. Although it is only a short distance from the mainland, the seas separating the island are rough. Large swells break on both sides of the island, meeting on the landward side. The channel is shallow, and many submerged rocks can be found. Currents are unpredictable, and can draw ships out of the channel into heavy surf. In April 1883, the extremely treacherous waters surrounding the island took the lives of the keeper (Henry Colburn), his assistant (Bernard Ashley), and two boys from a farm nearby (Clayton and Frank Pratt). The small group was attempting to return to the mainland from

the island via the shortest, though more dangerous route. The boat they were in was quickly swamped by breakers, which caused it to drift out to sea when a large breaker completely submerged them. All four were drowned. The two widows and children were on the island, and had blown the fog whistle to get attention of passing ships (U.S. Treasury Department 1883). The steamer *Los Angeles* did, in fact, anchor offshore after hearing the fog signal in perfectly clear weather. Upon noticing the flag flying upside down, a small boat was sent to the island. The steamer notified U.S. Naval Inspector, Commander George Coffin of the tragedy. He in turn, notified the Lighthouse Board. Mr. John Ryan, who was serving as first assistant keeper at Pigeon Point was also notified. Ryan arrived on the island on April 9 to find the flag at half mast, upside down. He provided assistance to the family members, and several days later assisted them in removing their belongings off of the island. Eventually, Ryan would serve as head keeper on the light station.

Despite the aids to navigation at Año Nuevo Island and Pigeon Point, wrecks continued to occur along this portion of the coast. Some of these consisted of the following:

J. W. Seaver 1887

San Vicente 1887

Colombia 1896

City of Para 1906

Point Arena 1913

Iolanda 1925

San Juan 1929

Tamishua 1930

New Crivello 1936

West Mahwa 1937

Southland 1944

The hazards present near Año Nuevo Island were described in an issue of the Pacific Coast Pilot in 1889:

This rocky ledge is one of the most dangerous on the coast in its relation to the large amount of coast trade. In thick weather a vessel coming from the westward is close upon it before seeing it, the more especially as the land to the eastward retreats one and a half miles, is quite low, and frequently can not be made out. The islet sends off a ledge for half a mile to the east-southeast (ESE). that serves to break the swell before reaching the cove, but increasing the danger to vessels approaching from the southeast around to the northwest.

Two breakers are reported off the islet, the first lies about one-quarter of a mile south-southwest (SSW) from it, and the second about one-third of a mile south. With a large swell these breakers are very heavy (Davidson 1889:151).

Light

As a result of these hazards, in 1890, a light was installed on the island in order to bolster the warning system. Some indicate that the light itself came from the station at Point Montara (Wayne Wheeler personal communication 2005). The light consisted of an oil lens lantern and was listed as “Fixed White” in a description of the station a few years later. The lantern consisted of a polygonal lens with six sides, 6 feet in diameter. It was 32” in height, with one plate on each side, each measuring 16” x 32” x ¼” thick. Unlike other lights, this one lacked a balustrade, or many of the other embellishments typically found on lighthouses. It contained a wood door to the lantern, with a ventilator on top. The lamp itself was described as tubular, with one wick to the burner. A spare lamp and two spare lamp burners were kept at the station. The manufacturer of the lantern is not known. The light was originally installed on top of the water tank (tank house), supported by 6” x 6” wood post on a concrete foundation, which was painted white (U.S. Lighthouse Establishment 1907). In 1911, the light was rated to have an effective range of 8.8 miles,



Figure 17. Tank house with light at top, unknown date (prior to the construction of the light tower in 1913). California State Parks

In 1894, the existing tramway was overhauled and repaired, with 675 feet of it renewed with iron rails being put down. The tracks were two inches wide x ½” thick. A turntable was put in place in order to eliminate a long curve at the north end of the island, thereby shortening the track. The trestle walkway from the dwelling to the signal building was also rebuilt. At the same time, a 4,500 gallon water tank was built. Two years later (1896), a larger 35,000 gallon water tank was built on a masonry foundation. In 1897, the keeper constructed a landing for the wharf, built with lumber salvaged from the beach supplemented with a small quantity provided to him (U.S. Lighthouse Board 1897).



Figure 18. Portion of tramway at north end of island in 1926. Jack Chambers photograph, California State Parks

New Fog Signal Building

The primary importance of the island for warning purposes remained the fog signal, however. In 1899, the older fog signal was replaced by a newer one, and a new building was constructed to house it. The original building (1872) appears to have been replaced by that constructed in 1881, and was demolished. This second building was reused as a coal house and tool room. An enclosed gallery or breezeway was built to connect the two buildings (U.S. Lighthouse Board 1902). By 1900, the fog signal apparatus was moved into it and was up and running. The building measured 42 feet long x 34 feet wide. It was connected to the light by a concrete walk. The fog signal itself was a 12” whistle, with 10 second blasts separated by 55 second intervals. It was powered by a 30 horsepower boiler, which consisted of 41 tubes, each 12 feet long and 3 inches in diameter. The boiler was described as a horizontal flue tube type measuring 12 feet long x 3 ½ feet in diameter. It was heated by a brick furnace (U.S. Lighthouse Board 1900). Cement walkways were built around the fog signal building to provide ease of travel at this time.

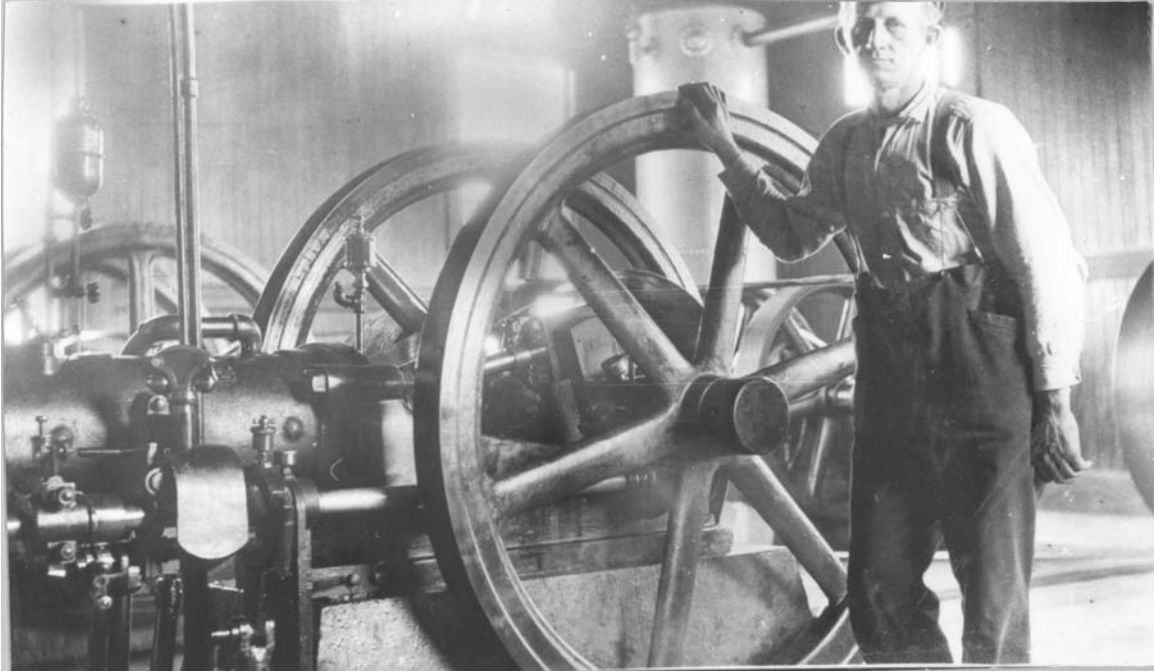


Figure 19. Air compressor in new fog signal building, ca. 1920s. Courtesy, U.S. Lighthouse Society, San Francisco, California.

During this same period, a small frame structure with plate-glass panes was built around the lens lantern to protect it from the weather. A new building, known as the boathouse (or storehouse) was constructed at the landing at the pier. The boathouse contained two stories, with the lower on the beach level and the upper at the tramway. Inside the building, a hoist with block and tackle transported supplies for the fog signal from the landing to the upper story of the boathouse. From there, it was loaded into a tram car, which was pushed by hand all the way to the fog signal building. A boat dock extended into the water from the boathouse, and a coal house was built at the landing, to house not only coal but also oil in the upper part of the structure (U.S. Lighthouse Board 1900).

A small boat was provided for the keepers, allowing them to go ashore on assigned days in order to pick up mail. Mail was delivered to a box on the coast highway adjacent to a farm house. Supplies for the keepers were kept in store houses attached to each of the dwellings, carried by wheel barrow along the wood walkways (Franke 1988).

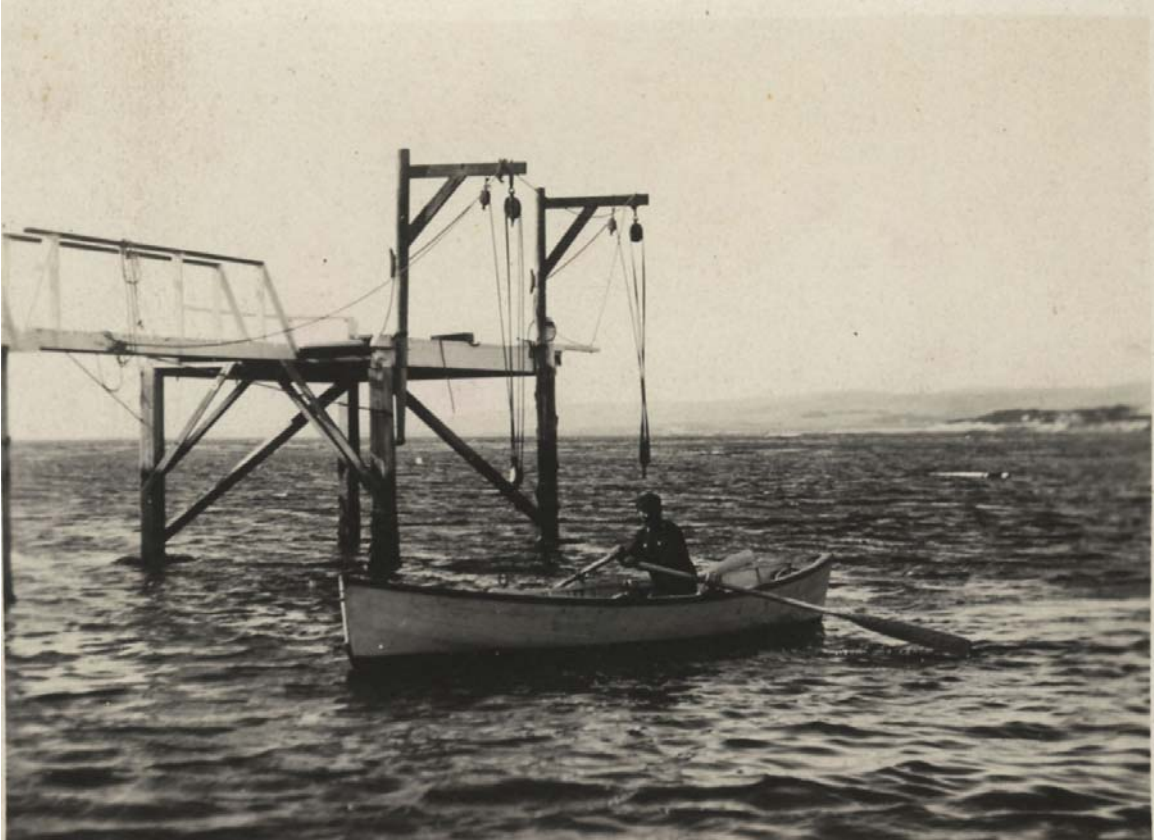


Figure 20. Row boat at the end of the pier at Año Nuevo Island, unknown date. Courtesy of Department of Special Collections, Stanford University Libraries.

Regular inspections were made by the District Superintendent. New supplies or replacement supplies were ordered during these inspections trips (Franke 1988). Inspections appeared to take place every few months, as H.W. Rhodes, Inspector (or his 1st Assistant), arrived for inspection twice per year during the World War I period (U.S. Treasury Department 1919)

By the turn-of-the-century, two employees were operating the station, both of whom had families with them. The additional keeper was required because of the second fog signal. As a result, the existing 36' x 28' dwelling was insufficient. It was divided into two living quarters, and contained only one small kitchen. A new dwelling was recommended, at an estimated cost of \$6,000. This exorbitant sum was due to the fact that: "...the island is in the open sea, outside of all freighting accommodations, and that the material for the dwelling would have to be transported to the site by special arrangements" (U.S. Lighthouse Board 1902). The U.S. Lighthouse Board expressed its reasons for the need for the new dwelling: "The Board is of the opinion that it is necessary to encourage capable men to take service with the Light House Establishment; that to do so it is necessary that they should be provided, at least, with reasonable accommodations" (U.S. Lighthouse Board 1904). The need for the new dwelling was particularly required because of the addition of the second fog signal, which required more manpower.

New Keeper's Residence

In 1904, a larger, more substantial house, including 8 rooms for the keeper and 7 rooms for the assistant keeper was planned for the light station (U.S. Lighthouse Board 1904). Work was delayed, however, because of the difficulty in getting supplies to the island. Landing was treacherous. Nevertheless, the addition was constructed on the south side of the existing building in 1906, adding nine more rooms including a bathroom. The house was described as white with red roofs. There were three outhouses, and a cement walkway was placed around the buildings (U.S. Light House Establishment 1907).



Figure 21. Keeper's dwelling taken from top of light tower. Small chicken house is visible in front of keeper's dwelling, ca. late 1950s. California State Parks

The rain-shed was also improved at this time (U.S. Lighthouse Board 1905), and by 1907, a 15,000 gallon redwood water tank was built on a redwood frame on concrete piers (U.S. Lighthouse Board 1907). By that year there were three wood tanks and one concrete cistern. One tank was located on the northwest side of the fog signal building; one on the highest point of the island 300 feet north of the fog signal; one on the north side of the keeper's dwelling; and the cistern was 100 feet north of the fog signal building (U.S. Light House Establishment 1907). The original tank was eventually replaced by a larger one, though the new one was not treated properly, and as a consequence the water was unfit to drink. The water was only used for washing and bathing.



Figure 22. Fog Signal building with water tank and distillate house to the right. Water shed and cistern are in foreground. Seawall is visible at rear of fog signal building, 1957. California State Parks

The keeper's residence was renovated in 1911, and a cistern was constructed to provide fresh water. A tank next to the residence caught runoff from the roofs of the house. This water was carried by buckets into the residences for cooking and drinking. By this time, the keeper's dwelling was painted white with drab trimmings. It contained 8 rooms and bath for the keeper, and 7 rooms and bath for the two assistants. Each dwelling had a small storeroom. There were cement walkways around the dwellings, along with a wooden walkway to the fog signal building. There was also about ½ acre of cultivated garden adjacent to the dwelling.



Figure 23. Wood walkway (catwalk) from keeper's dwelling to fog signal building (at left), light on tank house, 1926. Jack Chambers photograph, California State Parks

Maintenance of the buildings was a constant problem as a result of the sea air. Painting and red-leading were constant repair efforts. Fences were built to prevent the sea lions from coming into the gardens and the houses. The fast-growing herds of seals however, often over-ran the house.

In late 1913, the keeper noted that a new tower was under construction (U.S. Treasury Department 1913). The lens was installed on this steel tower, 73 feet above the water the following year. This tower was used for the remainder of the station's existence.



Figure 24. Steel light tower adjacent to tank house, ca. late 1940s, California State Parks

Fuel used on the station consisted of several types. Fuel oil (distillate) was used for the fog signal engines, kerosene for the light tower, and coal for cooking and heating. Lubricating oil was also used for the machinery. Distillate is considered any of a wide range of petroleum products produced by distillation, referring specifically to those products in the mid-boiling range, also called middle distillates and distillate fuels. The distillate was brought to the island in 50 gallon drums, as was the kerosene. The kerosene was kept in tanks, or reservoirs. The coal was brought in 100 pound sacks, with each keeper allotted 4 tons per year. The lubricating oil was brought in 5 gallon cans (Franke 1988).

Boats used included several dories, which were kept on four davits in the boat house mounted on swivel mounts. Dories were small (15-25' in length), shallow draft boats which were both lightweight and versatile, designed to be used for a variety of purposes, including fishing and whitewater rafting. Those used at on the island were 18 feet long, and were identified as "Dory style" #18084, #18083, and #17076. They each were equipped with 9' long oars, which were maintained with frequent varnishing.

Keeper	Arrival Date	Departure	Military Service	Comments
Thomas Owens	4/11/1876	11/23/1880		Resigned
Henry Drexler	11/23/1880	3/28/1880	Army	Resigned
Henry Colburn	3/28/1881	4/27/1883	Navy	Drowned
John Ryan	4/27/1883	1/20/1883	Navy	Transferred to Point Arena
Joseph Hodgson	1/20/1883	5/20/1886	Navy	
John Wilson	8/16/1888	7/15/1890	Army	
Henry Hall	7/11/1890	10/9/1890		
John Olaf Stenmark	4/6/1892	6/21/1892		
Thomas Butwell	8/30/1894	2/14/1901		
Herbert Luff	2/14/01	2/3/1903		
Inby Engels	2/3/03	9/19/1904		
Lawrence Ward	9/19/04	1/1/1907		
Edwin Gunter	1/1/1907	6/14/1910		
Martin Rasmussen	6/14/1910	10/1/1910		
J.O. Becker	?	1926		
Jack Chambers	1926-	ca. early 1930s		
Radford Franke	ca. early 1930s	?		

Table 3. Partial list of Head Keepers at Año Nuevo Island Light Station

Daily Life

The keeper and assistant keepers were charged with keeping the station operating and in good condition. They were responsible for all maintenance, such as painting, carpentry, and plumbing. Painting was perhaps the most frequent maintenance task, due to the weather conditions. The light tower, for example, needed constant cleaning and repainting to prevent rust. This was painted white. Red-leading was also frequently accomplished on many of the station's metal surfaces.

A week in the life of the keeper of the station during the month of June 1914, as shown below in table 4 is typical:

Day	Record of Important Events at the Station, Bad Weather, Etc.
13	Run Fog Signal
14	Sunday
15	Washday
16	Cleaning around Station
17	Nailing the railings and walks
18	Cleaned weeds around Distallate [sic] House
19	Cleaned Brass works in tower

Table 4. Lighthouse Establishment Form 306, *Journal of Light-Station June 1914* (U.S. Treasury Department 1914).

Watches ran for 6 hours at a time, 24 hours a day. The light in the tower had to be lit one half hour before and after sunset. It was illuminated by kerosene vapors, and had to be constantly observed so that it did not go out. An alcohol torch was used to reheat the generator if the temperature got too low. Maintenance for the light included cleaning the lantern windows, and the lens prisms; filling up the kerosene reservoir; and covering the lens with linen during the daylight to protect it from being discolored by the sun. Window curtains were also used to protect the lens. The station would be thoroughly cleaned and policed on Fridays. This included cleaning the fog signal building and light tower, shining all of the brass, and replacing the silk mantle on the lens (Franke 1988).

Keepers were required to maintain a log recording their daily activities. This was recorded on the Treasury Department's, Lighthouse Establishment Form 306, *Journal of Light-Station*. The journal was maintained daily, and was to record important events at the station, along with daily activities such as maintenance, trips away from the station, visitors, etc.

Life changed little over the years, as attested by the log of the keeper for a week in March 1928:

Day	Record of Important Events at the Station, Bad Weather, Etc.
21	Varnishing hallway, bathroom, pantry, and kitchen floors keeper's quarters. Varnished 3 rd coat 9' oars. Cleaning roof fog signal bldg. Painting new shingles fog signal bldg. Painting with red lead dock ladder and two channel markers. 2 nd Asst. Keeper crossed for mail.
22	Repair work on stove 2 nd Asst. Keeper's quarters i.e. took stove top off and

	repaired damper found damper worked out of shape could not close. Painting window sash and window sills fog signal bldg. Cleaning up old shingles and wood from around fog signal bldg. Scraping wire brushing, 40,000 gallon water tank in tank house. Misty rain.
23	Blowing Fog. Painting window sash and sills in Fog signal bldg. Painting with aluminum paint bulkhead lamp fog signal bldg. Scraping and wire brushing 40,000 gallon water tank in tank house. Rainfall. 2”
24	Blowing Fog. Painting window sash and sills in Fog signal bldg. Cleaning up fog signal apparatus and fog signal bldg. Cleaning up keeper’s chicken yard. Making miter box and miter cuts on old 3” x 3” posts from tramway. Sawing new 3” x 3” lumber into posts for tramway. 1 st and 2 nd Asst. Keepers crossed for mail. Rainfall.
25	Sunday Blowing Fog.

Table 5. Lighthouse Establishment Form 306, *Journal of Light-Station March 1928* (U.S. Treasury Department 1928).

Another important job was to maintaining the fog horn. The keepers had to keep watch on the fog. Once it began rolling in, the fog whistle had to be put into operation. The engine was started, air compressor activated, and the air in the receivers would run the horn. Two engines and two air compressors were used, switching from one to the other in order to let one cool. Two large air receivers were kept full at all times. Each light station had its own characteristic blast interval. Ships would therefore be able to determine their approximate location. Charts of the fog horn signal were maintained and sent to headquarters every month. These charts recorded the actual time the fog signal was started and served as protection for the station, as proof that the signal was in operation (Franke 1988).

Sea lions attempted to enter the buildings and gardens, and fences were built to prevent them. In 1918, the lighthouse keeper made an official complaint to the department about the sea lions over-running his house. At one time a killer whale had stirred up the sea lions so much that they forced their way into the house (Le Boeuf 1981). At that time, there were no elephant seals on the island although Stellar sea lions could be found in abundance



Figure 25. Otto Becker and his wife (center) together with Raymond and Anna Noyes (at left) in the yard adjacent to the Keeper's dwelling, ca. early 1920s. Courtesy, U.S. Lighthouse Society, San Francisco, California.

Several families lived on the island during the operation of the light station. Edwin F. Gunter was the keeper in 1907. J.O. (Otto) Becker served as head keeper sometime following 1910, up until 1926. He was replaced by Jack Chambers, who brought his wife Hazel (Streeter). At that time there were two other families living on the island. Groceries were delivered to the island every three months by barge. Hazel would make a list of the things she needed, give it to the barge tender, and he would bring them during his next trip. These items were brought from San Francisco. Two tenders made frequent trips to the island, including the *Sequoia* and the *Lupine* (in use by 1928). The tenders could not dock at the island, but instead anchored in a cove to the south, and the supplies were brought ashore in a dory or whaling boat. Hazel also went to the Steele Ranch (at Point Año Nuevo) to pick up fresh meat from Pescadero or Santa Cruz once per week. Depending upon the tide, Mrs. Chambers either walked from the island to the ranch, or took a boat. When winds were heavy, however, it became impossible to reach the mainland. The winds brought large waves which wrapped around the island, and caused dangerous surf on the sea between the island and the mainland. In later years, the phone line often would be blown down by these winds, leaving the cut-off (Franke 1988).



Figure 26. Jack Chambers in yard adjacent to keeper's dwelling, 1926. Jack Chambers photograph, California State Parks.

In planting a garden, Mrs. Chambers and another lady dug out approximately one foot of beach sand, filled the hole with kelp, then covered the kelp with sand, and the garden was placed on top. With this approach, the ladies were able to grow cabbage, onions, carrots, squash, corn, and “anything that could withstand the wind.” Other keepers reported that their vegetables were grown in a small area, and included cabbage, carrots, turnips, beets, radishes, and chard. Each plant was surrounded by a tin can with the bottom cut out in order to keep water on the plants. Most families further supplemented their menus with fish from the ocean as well as abundant abalone (Franke 1988). Mrs. Chambers made abalone or clam chowder every night (Calcagno n.d.). Each of the keepers had a chicken yard with a few chickens which supplemented their meals with eggs and an occasional chicken dinner. As there was no refrigeration on the island, only limited amounts of fresh vegetables, meat, bread, and fruits could be kept. These could, however, occasionally be obtained from local markets in the Pescadero area. Weekly baths were taken on Saturday. The left over water was used on the vegetable garden. Sewage was dumped off the end of the island.

A spring-wound phonograph provided entertainment. A small RCA radio was also operated by the keeper, run by dry cell batteries (Franke 1988). Most of the keepers enjoyed their time on the island:

We were never lonely and enjoyed our life on Año Nuevo Island, the isolation did not bother us as the life was quite interesting. We

would walk down beyond the Fog Signal building and watch the Sea Lions on the end of the Island and on the adjoining rocks and did a lot of exploring around the Island beach, in the evenings while having our dinner we could look from our upstairs kitchen window and watch the Sea Lions romping in the breakers with the setting sun shining through the waves while they were catching their evening meal of fish or just surfing on the waves [Franke 1988:4]

1920s and 1930s

Telephone service was finally provided to the island during the 1920s, with a line installed between the fog signal building and the keepers' dwelling. Existing facilities were improved and upgraded during this period. A new 40,000 gallon water tank was built in 1928, replacing an older tank. A new 1 ½" pipe line was installed as a part of this new water tank. A new walk at the signal building, connected to the end of the tramway was also constructed.



Figure 27. William F. Steele (at left) with Paul Fielding, Head Keeper at Pigeon Point light station and unidentified man, at keeper's dwelling, unknown date. Courtesy of Department of Special Collections, Stanford University Libraries.



Figure 28. U.S. Coast Guardsman working on air compressor in Fog Signal Building, 1948. Reginald McGovern photograph, courtesy, U.S. Lighthouse Society, San Francisco, California.

A series of earthquakes, particularly one on October 22, 1926 caused significant damage to the island's structures, several of which never fully recovered (particularly the lens). The quake on the 22nd, in fact, consisted of four quakes occurring in quick succession between 4:40 and 7:55 am. During the first quake, the lamp was thrown out of its base, and about 1/3 of the lens prisms were shaken out of the frame. A second at 5:45 am demolished the lens. The tower rocked such that the lens was shaken loose from the table

and thrown to the floor, and much of the broken glass fell through to the watch room below.

By the 1930s, there were three men assigned to the island, the keeper and two assistant keepers. Generally, there were two men on the island at one time. Each man received 96 days off per year. By that time, facilities remained largely unchanged, and consisted of a steel light tower, fog signal building, keeper's dwelling, oil and distillate house, landing dock and warehouse, carpenter and blacksmith shop, concrete rain shed, and cistern and water tank (Rhodes 1930).

In 1939, a diaphone was established on the island, replacing the earlier fog signal. By this time, the island was manned by four Coast Guard personnel, all of whom lived onsite. At least some of these personnel brought their families with them to the island.

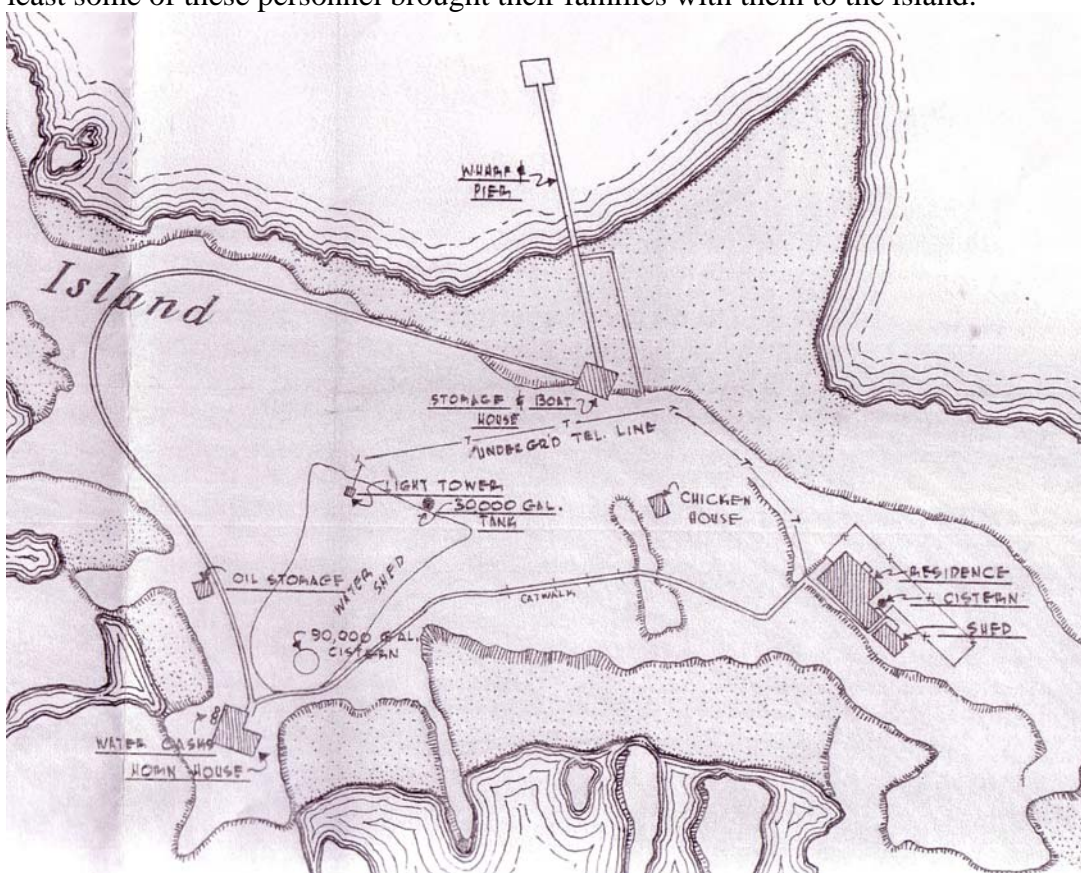


Figure 29. Map of the island showing the built-up portion, ca. 1958. U.S. Coast Guard, Washington, D.C.



Figure 30. Aerial photograph of Año Nuevo Island looking northwest, shortly before Coast Guard abandonment, 1948. Reginald McGovern photograph, Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 31. Unidentified Coast Guard family preparing to leave Año Nuevo Island prior to its abandonment, 1948. Reginald McGovern photograph, Courtesy, U.S. Lighthouse Society, San Francisco, California.

Abandonment of the Island

Following World War II, as the use of radar and radio beacons became far more widespread, a lighted whistle buoy was placed approximately 1600 yards south of the island. In 1948, the Coast Guard ordered the light station discontinued. The expense of maintaining the station was too great, and a marker buoy with automatic light, sound, and

radar reflector had recently replaced the light. Personnel soon abandoned the island. An inventory made the following year revealed a great deal of material still remaining:

Rainshed, concrete, 115 ft x 160 ft
Cistern, 75,000 gallon
Cistern, 4,000 gallon
Trestle, wood, 290 ft, with marine railway steel rails, 680 ft
Trestle dock, wood on steel piles, 199 ft. long
Marine Railway steel rails, 220 ft. long
Walk approach, 99 ft. long
Dock, wood set on timber piles, 20ft x 20 ft.
Derrick
Retaining wall, concrete 180ft. x 9 ft. high
Bulkhead, timber 78 ft. x 3 ft. high
Walk, concrete
Fence, board, 367 ft long
Fence, picket, windbreak, 12 ft. high
Sump tank housing, concrete, 6 ft. x 5ft.
Walk, plank and railing, 500 ft walk, 800 ft. railing
Tank, Water, redwood stave, 12,000 gallon
Tank, Water, redwood stave, 35,000 gallon
Tank, Water, redwood stave, 20,000 gallon
Sewer system, 4 inch terra cotta pipe
Electrical power line, ¼ mile long
Fire protection system, 1700 ft of buried line
Keeper's Quarters, 49ft.x 28ft.
Keeper's Quarters, 28ft. x 36ft.
Light Tower, steel beam, 18 ft. square at base, 35 ft. tall
Fog Signal Building, 34 ft. x 44ft.
Store and boathouse, 18ft. x 30ft.
Oil house, concrete, 13ft. x 27ft.
Warehouse, wood frame, 20ft. x 30ft.
Coal shed, wood frame, 14ft.x 30ft.
Tank house, hexagonal, 6 ft. per side
Storage shed, 8ft. x 6ft.
Chicken House, 10ft. x 14ft.
Watch House, 5ft. x 5ft. with wood plank platform 17ft. x 11ft.
Flag pole, 40 high
Lantern, 4th order with door
Lens, 4th order, 360 degrees, 500 watt lamp
Light flasher, double mercury type
2 Diaphones, F27, Number 84 and 87
2 Diaphone timers
Compressor, 9 inches x 8 inches
Motor, electric, 20 HP,
Motor, electric, ¼ HP

2 Air receivers, steel, 3ft. x 12ft.
Generator Plant, 120-volt
Generator, exciter,
Engine, Wisconsin, AC-4
Switch Board, enclosed units
Starter, motor, electric, 25-HP, Westinghouse
Fire pump, centrifugal, Demming 150 GPM
Pump, water
Winch, hand crank
13 Fire hydrants
fuel tank, steel, gasoline, 100 gallon
fuel tank, steel, gasoline, 500 gallon
2 Fuel tanks, steel, gasoline, 1000 gallon
Hoist, single drum, Atlas Lanova Diesel engine
Air Compressor, 125 CFM, Worthington
Gasoline Engine, Model F 226, Continental
Telephone Lines (U.S. Coast Guard 1949)

Much of this material was in poor condition or was otherwise obsolete. That which was salvageable was sent to the Coast Guard depot at Yerba Buena Island.



Figure 32. Aerial photograph of Año Nuevo Island, looking southeast, 1948. Reginald McGovern photograph, Courtesy, U.S. Lighthouse Society, San Francisco, California.

In 1955, the federal government sought to divest itself from the island, and agreed to sell it to the State of California. The state was unable to raise the funds to purchase the island (\$18,094), and it was declared surplus property and taken over by General Services Agency (GSA). GSA planned to auction the island off to the highest bidder, but the state was able to get an extension in order to raise more funds. Despite a high bid of \$100,000 by Max Walden (for Frank Spenger), the island was sold to the state for \$52,000 in 1958. In 1958, DPR acquired Año Nuevo State Reserve, which encompassed over 1,100 acres of varied terrain on the adjacent mainland. The island was included in this newly created state reserve.

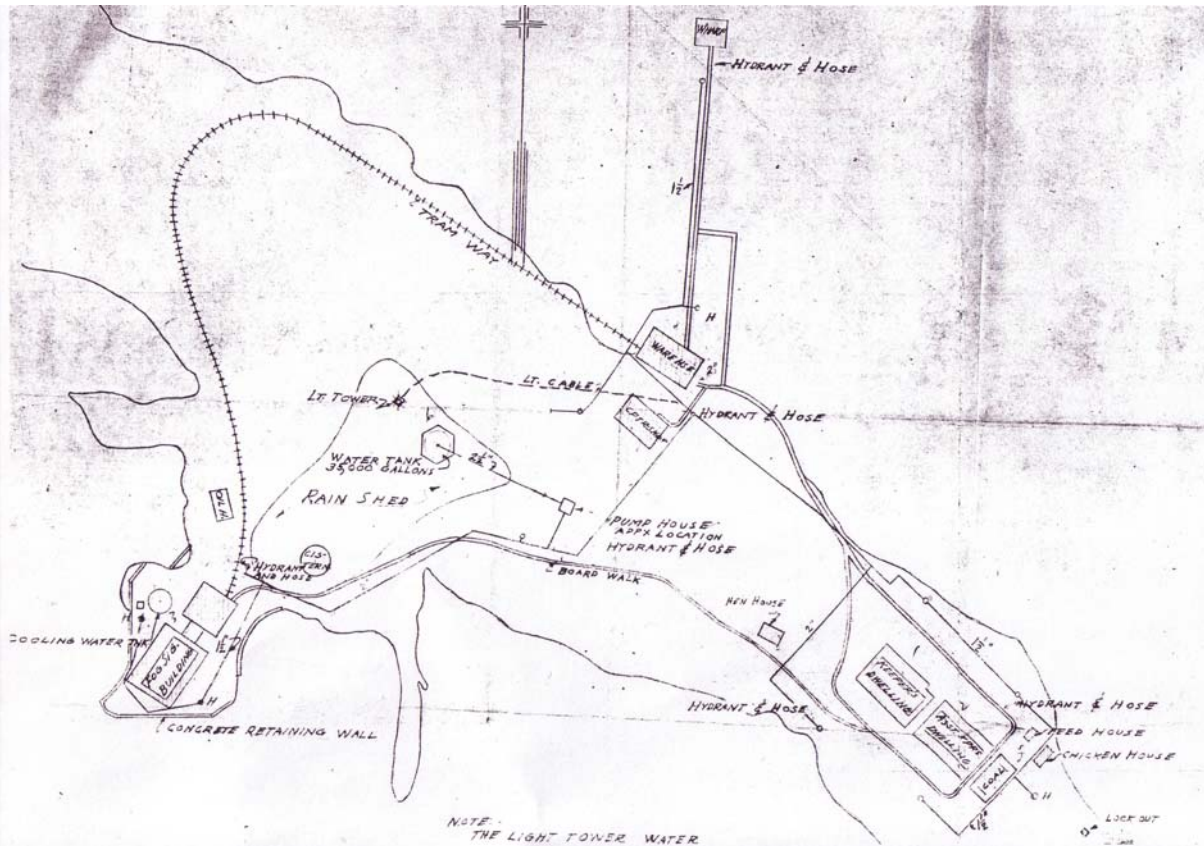


Figure 33. Año Nuevo Island Light Station Fire Protection System, March 18, 1942. U.S. Coast Guard, San Francisco, California.

Biological Preserve

Having almost been hunted to extinction by the turn-of-the-century, the northern elephant seal made a remarkable comeback. A seal was first reported on Año Nuevo Island in 1955, and the first birth was recorded in 1961 (Orr and Crompton 1961). The first birth on the mainland was recorded in 1975. In order to protect the elephant seal breeding colonies, the state classified the island as a scientific preserve, eventually restricting public access and use. The island was unique in many ways. It represented the narrow overlapping area of the southern migration boundary of the Stellar sea lion and the northern migration boundary of the California sea lion, elephant sea, and sea otter. It

contained the largest rookery of Stellar sea lions outside of Alaska and the Arctic (Poulter and Jennings 1964).

Before the early 1960s, most of the structures from the light station remained in place, and were in fairly good condition. To protect them, the state attempted to perform periodic maintenance. The light tower was re-painted and repairs were made to the pier. One of the structures was deemed unsafe, and was removed. The Army supplied periodic helicopter service to the island during this period (California Division of Beaches and Parks 1962). Deterioration accelerated rapidly soon thereafter, however. Corrosion, water and wind erosion, and vandalism all took their toll. The tramway tracks were completely rusted away in many places. The support beams for the pier rusted rapidly once the paint wore off. Vegetation in place on the island as late as 1952 was virtually gone by the early 1960s. Wind erosion accelerated this. Wind erosion also undermined the east side of the 30,000 gallon water tank (Poulter nd). In 1976, the state cut down the steel light tower, as it was in danger of collapse. Visitors to the island in the late 1950s and early 1960s caused all manner of damage. They constructed campfires out of much of the wood walkways and pier, and set fires inside many of the buildings. By breaking into the buildings they allowed access by the sea lions and elephant seals.



Figure 34. Steel light tower shortly before being cut down. California State Parks

Though original plans called for public access to the island, scientists maintained that elephant seals and sea lions were leaving the bluffs and beaches of the island as a result of human activity. The decision was made to keep the island as a biological research park and scenic reserve. It would be limited to scientific and educational purposes on a permit basis. Some recommendations called for the removal of structures on the island in order to “improve” the habitat. In 1961, a proposal was made by Stanford Research Institute (SRI) to lease the island as a marine biological park. Once the structures were reconditioned, the island was to serve as a biological study area for scientific institutions, universities, as well as the general public. Plans called for a cable-operated barge, or an aerial tramway between the mainland and the island to eliminate the hazards of crossing (Orr and Crompton 1961).

In 1962, SRI was granted a temporary use permit for the island. Dr. Thomas Poulter, Scientific Director of Physical and Life Sciences at the Institute, oversaw the activities on the island. Dr. Robert T. Orr with the California Academy of Sciences was also active in research on the island. The Institute wanted to study the seals and sea lions on the island, and planned to improve the buildings. Initially, SRI proposed using the existing buildings for their facilities. The fog horn building was to be used as shops, offices and storage space. The keeper’s dwelling was to serve as housing, and the assistant keeper’s dwelling was to serve as offices. Soon after arriving, they tore down the 20,000 gallon water tank adjacent to the old foghorn building. In 1962, the 30,000 gallon tank and the hexagon building within which it was housed (adjacent to the light tower) and all debris in its vicinity were removed. The redwood lumber was used for building blinds. Poulter was replaced by Dr. Richard Peterson with the University of California, Santa Cruz (UCSC) sometime thereafter. UCSC continued to study the seals on the island, through a 10 year permit. Instead of using the other buildings, the scientists lived in the former gasoline storage building, refurbishing it to make it habitable. The building soon proved to be inadequate, and it was closed up with steel doors (Poulter and Jennings 1964). The scientists constructed blinds from which to observe the seals, a staircase and boardwalk to the foghorn building, and snow fencing for drifting sand. The foghorn building was cleaned-out and storm screens were installed to convert the building into a storage facility. A 36” aluminum pipe was built from the main part of the island to the observation blind which the researchers climbed through in order to not disrupt the seals.

Recordation

Año Nuevo Island Light Station is located on a 9-acre island a short distance off Point Año Nuevo, approximately 55 miles south of San Francisco, and 20 miles north of Santa Cruz. Though the island is only $\frac{1}{4}$ mile from the mainland, it is separated by a treacherous channel of strong currents and large waves. The island was one of the most dangerous to passing ships due to the presence of numerous rocks and strong swells. Located off a low, rocky and windswept point jutting out into the Pacific Ocean, the island is irregular in shape with little topography. Bluffs rise 15-20 feet above the shoreline. There are numerous sandy coves that shelter thousands of sea lions and elephant seals.

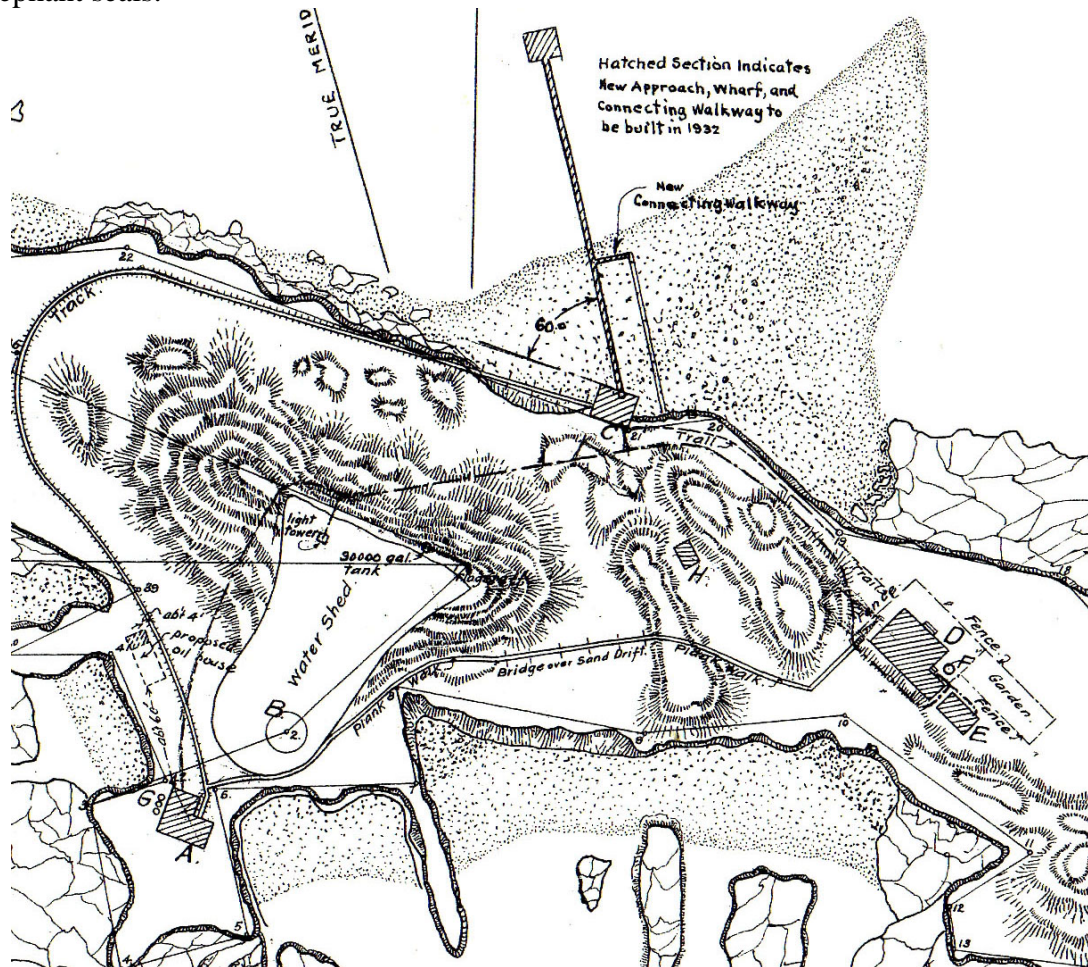


Figure 35. Año Nuevo Island, ca. 1928. Reduced from Survey made under the direction of Lieut. Col. R.S. Williamson, 1880.

The entire island was surveyed for archaeological resources in 1984, yet none were found, except for one ironstone bottle approximately 10 meters west of the keeper's dwelling (Woodward 1984). Today, there are only three structures remaining on the island: the keeper's dwelling, fog signal building, and the fuel storage building. In addition, there are several smaller structures and features as well as the archaeological remains of the other buildings and structures that once stood.

Island purchased by U.S. Government in 1870
House measuring 36' x 28' built for the keeper in 1872
Fog signal installed in 1874
Light on water tank installed in 1890
Addition to Keeper's dwelling constructed in 1906
Houses renovated in 1911
Light on the tower installed in 1914 (steel tower built)
Earthquake in 1926 destroyed the lantern lens and severely damaged the lighthouse
New fog signal was installed in 1939 (air-powered diaphone)
Facility closed in 1948 (replaced by lighted whistle buoy)
Northern Elephant Seal appear on island in 1955
State purchases island in 1958
Light tower removed in 1976

Table 6. Outline of chronology for Año Nuevo Island

Keeper's Dwelling

This building consists of two parts, the older section built in 1872, and the addition constructed in 1906. Though the buildings are joined, they are not connected and are very different in style. That section built in 1872 measured 36' x 28.' The two keepers lived in this one structure with their families, and partitioned it into two sections. The house was described as white with drab trimmings and red roofs (U.S. Light House Establishment 1907). At other times, the window sashes were painted in a brown metallic, Venetian, and Vermillion mixture. The 1906 addition was built to the south of the existing building, adding nine more rooms including a bathroom. The building was renovated in 1911, although specific work completed is not currently known. Plans for another addition to the keeper's dwelling were made in 1916. These were drafted by the Office of the Lighthouse Inspector, Eighteenth District, in San Francisco. It appears that addition was never completed, however. Some sources seem to believe that the older section of the dwelling represents that portion built in 1904, while the original section (1872) is completely gone today. This does not appear as plausible, however, as it is unlikely that a large addition (1906) would be built only two years after that time.

There are 4 chimneys, two on each section. The roof is clad in wood shingles. Windows consist of double-hung sashes, with most of the panes missing. Entrances consist of wood doors, most of which are missing. Each quarters contained two bed rooms, a bath, kitchen, and living room, as well as a Eureka #7 1884 stove. The interiors contained lath and plaster sheathing. The interior also contained many wood surfaces which were frequently varnished.



Figure 36. Keeper's dwelling, original on left, 1906 addition on right, looking south, ca. 1950s.

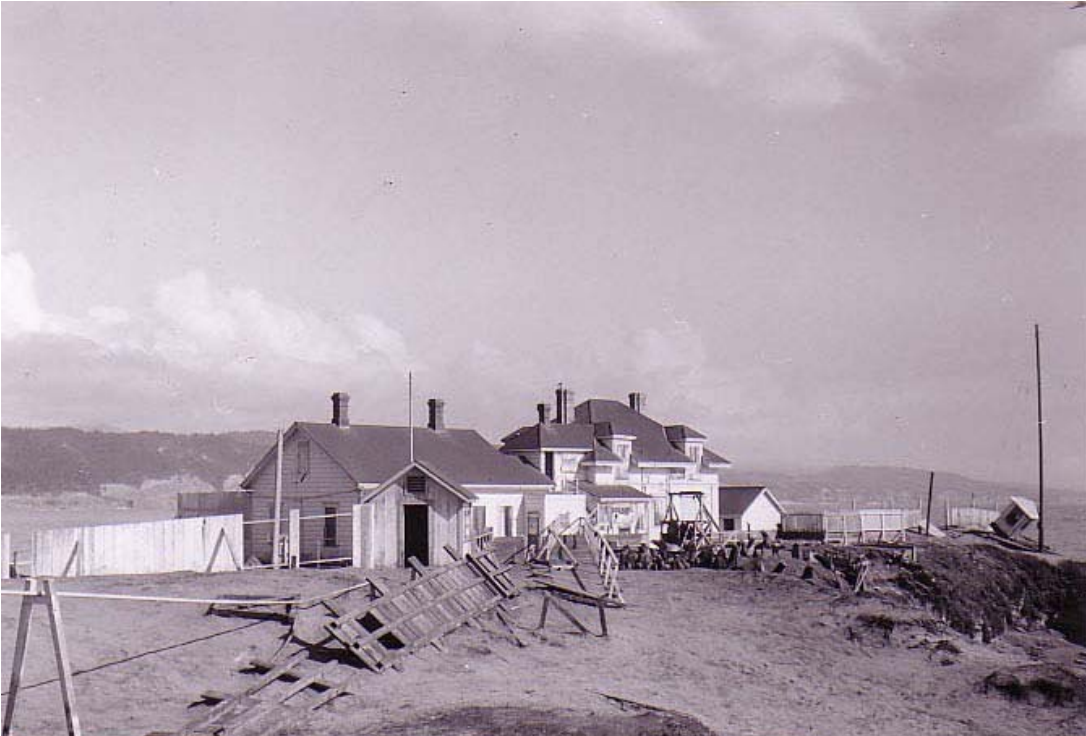


Figure 37. Keeper's dwelling, original on left, addition on right, looking south, ca. 1950s.



Figure 38. Keeper's dwelling, looking northwest, 2005.



Figure 39. Keeper's dwelling, looking southeast, 2005.

North end (1872 section)

This was the original keeper's dwelling, and was occupied by the keeper once the addition was built. It contained 8 rooms (U.S. Lighthouse Board 1904). It measures 36' x 28.' It was constructed in a Greek-Revival style, and was far simpler in plan and design than the subsequent addition. The side gable roof is medium pitch, and is clad in wood shingles. The building contains symmetrical façades on front and rear, with an entrance flanked by sash windows. It is a 1 ½ story building, though contained only one floor for living space. The building rests on a brick foundation. Siding consists of 8" wide clapboards over diagonal board sheathing. It contains four rooms and a single bathroom complete with toilet, enameled iron sink, and bathtub.

The foundation has been seriously undermined by erosion of the adjacent beach. The building is in danger of collapse as a result.



Figure 40. Original keeper's dwelling, ca. early 1920s. 1906 addition is visible to left. Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 41. North end of assistant keeper's dwelling, ca. 1958. California State Parks



Figure 42. Keeper's dwelling, original portion on right, 1906 addition on left, 2005.



Figure 43. Keeper's dwelling, original portion, showing brick foundation and deterioration to north corner, 2005.



Figure 44. Keeper's dwelling, original portion, west side, 2005

South end (1906 addition)

This was the addition built in 1906, and served thereafter as the assistant keeper's quarters. It consists of two stories and contained 9 rooms originally. The interior appears to have been altered over subsequent years, as there were only 7 rooms by Coast Guard abandonment. The building rests on a concrete pier foundation, with 2"x6" stud framing. Siding consists of shiplap, 2" wide, nailed to diagonal sheathing. The hip roof contains boxed cornices. Five dormer windows covered in hip roofs are in place (three on the east and two on the west elevation). The south end is 55' long x 28' wide, with two offsets. There are five rooms, with a pantry and bathroom. A 20" x 36" sink was in this portion of the dwelling. The interior was clad with plaster, with many details such as picture molding. In later years, when three men were stationed on the island, this section of the dwelling was divided by floors, with the keeper living on the first, and the second assistant keeper in the second (the first assistant keeper lived in the north original building). Upstairs, flooring consists of linoleum. A sign was in place in front of the dwelling beginning in 1930, although it is not known what the sign read.

The main entrance appears to have been on the east elevation. It consisted of a single, two-panel wood door, framed by pilasters as well as by transom and side lights. A small portico was built over the entrance, serving as second story balcony. The portico is now gone. Windows throughout the rest of the building consisted of double hung sash with two lights each. There were two chimneys in the building, in place between the bedroom and sitting room, and the kitchen and dining room on the first floor. The section is similar in style to some keeper's dwellings in New England, and has been described as Colonial Revival, Cape Cod, or New England style. It contains several Greek Revival elements as well. The building is deteriorating rapidly due to neglect, as well as seal activity.



Figure 45. Rear (west) of keeper's dwelling (1906 addition), showing separation between original building (on left), and addition on right, 1926. Jack Chambers photograph, California State Parks.



Figure 46. Rear (west) of keeper's dwelling (1906 addition), 1926. Jack Chambers photograph, California State Parks.



Figure 47. Front (east) of keeper's dwelling (addition) in between original dwelling at right and shed at left, 1982. Catalog #24738, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 48. Rear of Keeper's dwelling (1906 addition), stairway to landing, west side, 1982. This stairway was added sometime later judging by previous figure. Catalog #24738, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 49. Exterior of west wall, keeper's dwelling (1906 addition), showing broken iron pipes, window frames, and molding, 1982. Catalog #24736, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 50. Front (east) entrance to keeper's dwelling (1906 addition), 1982. Note scar from portico and boarded transom. Catalog #24740, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 51. South end of keeper's dwelling with shed, 1982. Catalog #24743, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 52. Keeper's dwelling, 1906 addition, 2005.



Figure 53. Keeper's dwelling (1906 addition), 2005.

There were three outhouses and a cement walkway around the buildings. A small, ½-acre garden was also immediately adjacent, used by the keeper's for supplemental food. A cistern was built at some point in the 1920s to provide water for the residences. There was also a storehouse measuring 8' x 6,' adjacent to each dwelling where coal, kerosene, and supplies were kept. Judging by building plans, these storehouses were attached to the building. A storage shed was constructed to the south of the 1906 addition at some point. This was used to store coal, as well as other supplies at other times. A wood walkway, also known as catwalk or boardwalk, led from the keeper's dwellings to the fog signal building. Only a small portion of this walkway remains today.

Chicken House

Lighthouse keepers often kept a small number of animals to provide additional sustenance, and a small chicken house was in place north of the keeper's dwelling. It was a wood frame structure measuring 10' x 14.' Other small structures were built to house chickens at other times, including to the south of the keeper's dwelling. None of these structures remain today.

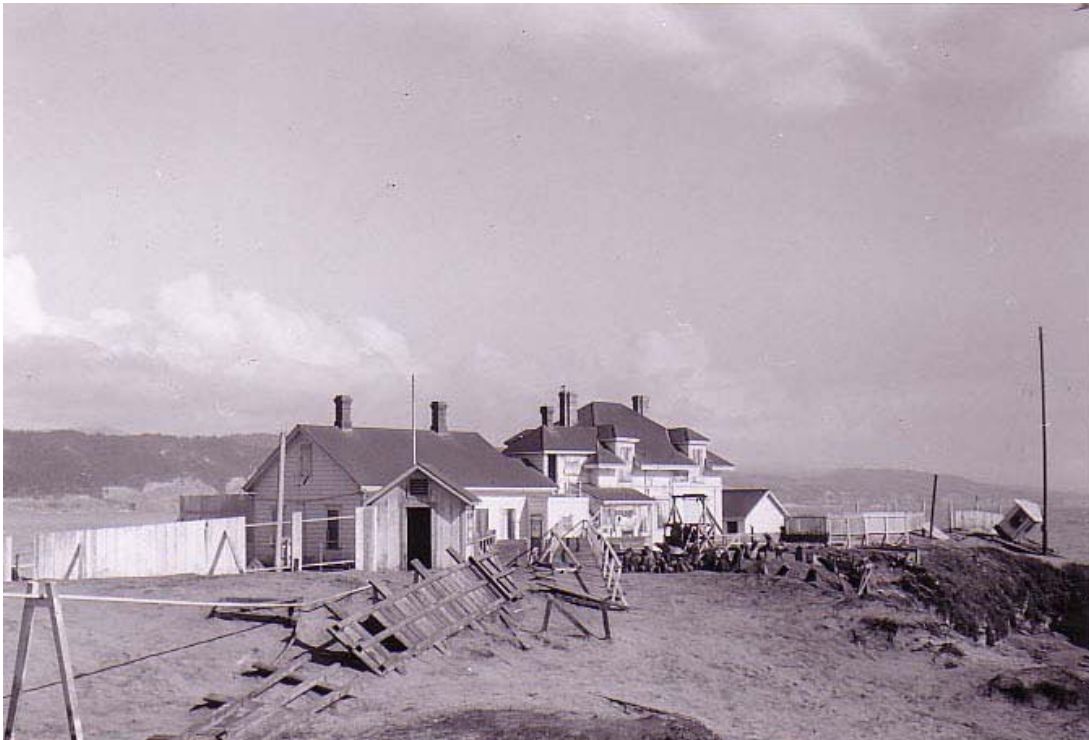


Figure 54. Keepers' dwellings with chicken house in foreground, 1957. California State Parks

Fog Signal Building

The original fog signal building was built in 1872, was painted white, and included a carpenter and blacksmith shop. The wood frame building was constructed in an L-shape, both sections with gable roofs (see Figure 14). Cornice returns were found on each gable end. Siding consisted of shiplap. The roof was clad in wood shingles. The horn was at the peak of the roof, above a numeral "5." The fog horn gave blasts of 10 seconds followed by intervals of 55 seconds. The fog horn itself was frequently painted with aluminum paint.



Figure 55. “New Years Island, Fog Whistle, Looking South.” Ca. late 1870s. Stereographs from the Pacific Coast series, E. Muybridge: Photographer, PC-RM-Stereos: Box 03, Courtesy California Historical Society.

The building was expanded in 1880 following the placement of a second fog signal, and at some point was demolished for to make room for a second building, which was completed in 1881. It appears possible that one gable portion of the original building was used in the second building, as their shape and form are similar. Immediately adjacent to the building was a large water tank that was used to cool the fog signal boilers. Frequent repairs were made to these boilers. In 1885, for example, one was replaced, followed by another in 1887. They were built by F. J. Moynihan of San Francisco.



Figure 56. Second fog signal building (built 1881) in front of water-shed and cistern, ca. late 1880s. Fog whistles are smaller vertical members protruding from roof. Larger pipes are vents for boilers. Note similarity to fog signal building at Pigeon Point in Figure 11. Courtesy of Department of Special Collections, Stanford Libraries.

In 1899, a new frame building was constructed in front of the older building in order to house a new fog signal. The fog signal apparatus was moved into it and made operational the next year. New 4" whistle valves replaced the older ones. The building measured 42' x 34.' The older fog signal building was connected to the new one by an enclosed gallery. The older building was converted to use as a coal house and tool shop. The original building (1872) was torn down at that time. A concrete walk was built to connect the building to the light.



Figure 57. Fog signal building with water tank and distillate house to the right. Second (1881) fog signal building is twin gable structure at rear of larger building (1899). Water shed and cistern are in foreground. Seawall is visible at front, 1957. California State Parks



Figure 58. Fog signal building at right, 1926. Jack Chambers photograph, California State Parks.

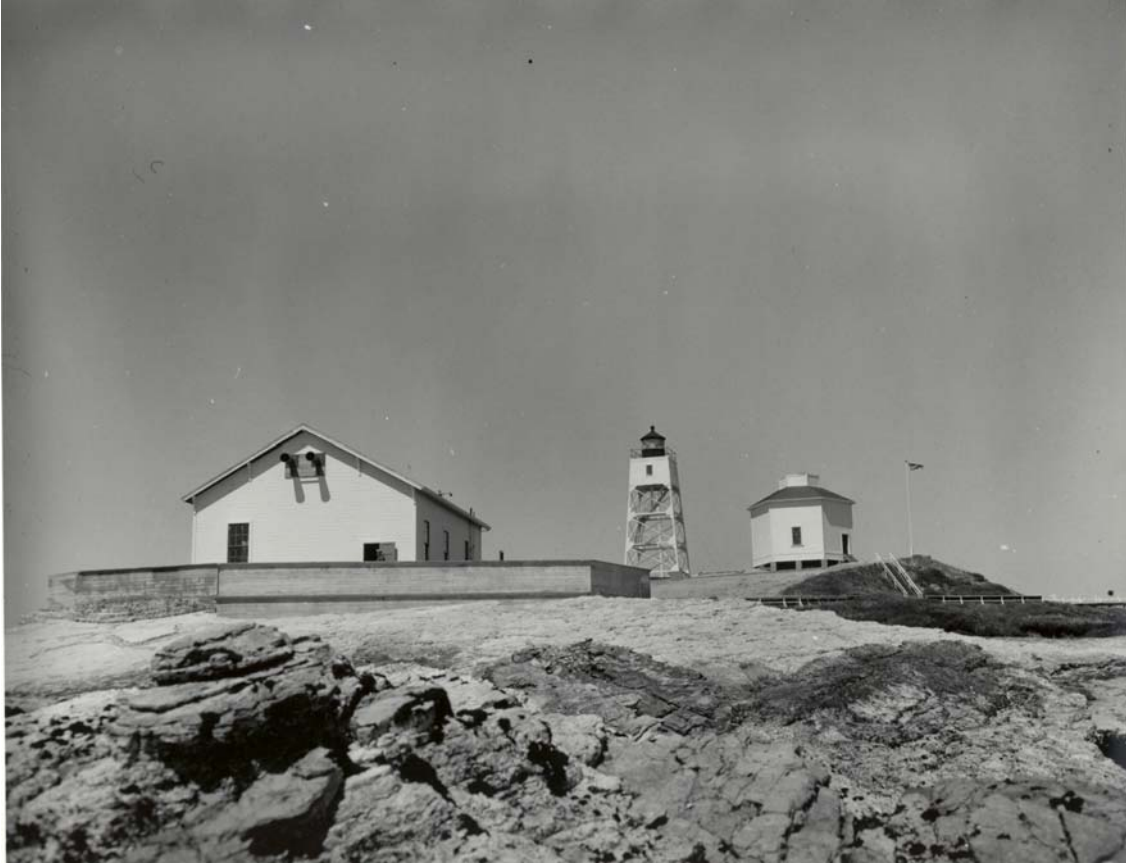


Figure 59. Fog signal building (at left) adjacent to light tower and tank house. Flag pole is barely visible to right of tank house, unknown date. Note fog signals in gable end. Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 60. Fog signal building and wood walkway, ca. early 1920s. Note fog signals in gable end at left. Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 61. Fog signal building in background with seawall visible to left, 1966. California State Parks



Figure 62. Fog signal building, 1982. Catalog #24752, California State Parks, Archaeology Laboratory, West Sacramento.

Today, both buildings remain. The building can be divided into three segments: 1) the second 1881 section; 2) the gallery, or breezeway connecting the two buildings; and 3) the newer building constructed in 1899.

1881 building

This wood frame building was constructed in 1881, to replace an original building constructed in 1872. It currently measures 24' x 31.' The building rests on a concrete slab foundation. The roof consists of two gables, clad in wood shingles over closed board sheathing. Eaves contain boxed cornices, with cornice returns on each gable end. Siding consists of shiplap. Windows consist of four and six-light fixed sashes. Those windows on the first floor of the northeast front elevation were added at some subsequent date, as early photographs depict this wall without windows. It appears that all of the windows were replaced at some date, although it is not known specifically when this occurred. Wood, movable sashes are stored in a storage room in the 1899 section of the building. There is only one entrance remaining on the building, on the northeast front. It appears that this entrance was moved from its original location to make way for a sliding door in its place. This sliding door was later covered over, and another single door was put in its place. There was likely an entrance on the other end of the building, the southwest. Following the construction of the newer building in 1899, and the enclosed gallery, this door was likely removed. Window and door trim on this section of the building is 5 ½" wide. Siding members are 9" to the weather.

The interior contains cement floor (currently painted green). Wall sheathing varies, with shiplap, tongue and groove, and random size boards all found.



Figure 63. Fog signal building looking south, unknown date. Note tramway at right and fences adjacent to building. Courtesy of Department of Special Collections, Stanford University Libraries.

It appears that there was no ceiling originally, with the interior was left open. Windows (6-light fixed sashes) on the gable ends provided light for this interior space. These are painted over today. Two large posts support 6" x 6" beams which carry the ends of the roof trusses on in the middle of the interior. Rafters consist of 2" x 6" lumber. Only after the building was converted to a coal shed and tool shop was a ceiling installed over parts of the interior. This was to create rooms for tool storage or other shop purposes on the north and east corners of the building. The center of the building was left open. The rooms were built following the construction of the new fog signal building in 1899, as there was no need for a large open space in this building to house the signal equipment and boilers. Various siding was used on these rooms, including tongue and groove and shiplap, of varying dimensions. This siding may have come from other locations on the station. The hole for the fog signal apparatus in the southwest end of the gable roof was patched once this building was converted to serve as coal shed and tool shop. Traces of this opening can be seen in the roof today.

Gallery

The gallery was built in 1899 in order to connect the new fog signal building with the older building. The gallery is 11'8" long x 8' wide. Siding members measure 7" and 9" to

weather. The structure was built using 4" x 4" studs, and left unsheathed on the interior. Wood sliding doors are found on each end, providing access to the exterior of the building. The tracks for these doors are replaced frequently due to rust. Trim around the sliding doors is 6" wide.

1899 Building

Constructed to house newer fog signal equipment, this wood frame building measures 44' x 34.' As with the 1881 building, this one is sheathed in shiplap siding. It contains a gable roof, clad in wood shingles over closed board sheathing. The king post trusses supporting the roof are identical to those in the fog signal building at Point Arena light station (built in 1896). Bottom and top chords consist of 3" x 10" lumber, and web members are 2" x 8." Five wood brackets are found beneath the eaves on each gable end. Windows consist of several 6-light fixed sashes which replaced original 6/6 movables sashes; two 6/6 sashes in the second floor of the northeast elevation; and a single 4-light fixed sash on the southeast side which replaced an original 6/6 sash here originally (scar is visible above window). A modern, sliding aluminum window was installed in the opening for the fog signals on the southwest end. Window trim is 5 1/2" wide. Siding members measure 7" to weather.



Figure 64. Fog signal building looking north, unknown date. Note sliding door on front of 1881 building. Fog signal whistles are visible on 1899 building. Courtesy of Department of Special Collections, Stanford University Libraries.

The interior contains four rooms. The main room contained the fog signal boilers and apparatus. Only concrete foundations and channels (to drain water away from steam boilers) remain from the equipment, however. A single entrance is found on the southwest end of the building, currently enclosed by a plywood door. Hinge and strike plate scars on the exterior portion of the frame indicate that a door originally opened to the south. Two rooms are found on the northwest and southeast interior sections of the building. The purpose of these rooms is not currently known, although one appears to have been used as a tool room. Each room is sheathed in tongue and groove wood siding. Small windows are found on the interior of these rooms (southwest side) into the main room. There are two doors on each of these rooms providing access from the main room. A small generator room was constructed on the south corner of the room on the southeast side. A loft was recently constructed in the second floor area of the southwest gable end, and is used for biological observation.

The wood shingles on each of the roof sections were replaced within the past 10 years, and the exterior was re-painted a few years ago (2-3 years). Old shingles were burned on the island.



Figure 65. Fog signal building, 1881 portion at front, 1899 portion at rear, 2005



Figure 66. Fog signal building looking northwest, 2005.



Figure 67. Fog signal building looking southwest, 2005.



Figure 68. Fog signal building: gallery connecting 1881 portion at left and newer (1899) building at right, 2005.



Figure 69. Retaining wall adjacent to 1881 section of fog signal building, looking west, 2005.



Figure 70. Fog signal building looking north, 2005. Note concrete retaining wall at right, and remains of wood walkway.



Figure 71. Interior of 1881 section of fog signal building looking through gallery (southwest) to 1899 building, 2005.



Figure 72. Interior of 1881 section of fog signal building, east corner, showing Room 2 and posts supporting beam, 2005



Figure 73. Interior of 1881 section of fog signal building, west corner, 2005. Note tongue and groove siding on wall to left and ceiling sheathing, and shiplap sheathing on wall at right.



Figure 74. Interior of 1899 fog signal building, southwest wall, 2005. Loft visible at top of photograph was original location of fog signal whistles.



Figure 75. Interior of fog signal building, 1899 portion, showing door into Room 8, 2005. Note foundations for boilers and other equipment.



Figure 76. Interior of 1899 fog signal building, northwest wall, 2005. Note tongue and groove sheathing, and lower portions of roof trusses.



Figure 77. U.S. Coast Guardsman working on air compressor in fog signal building, 1948. Reginald McGovern photograph, courtesy, U.S. Lighthouse Society, San Francisco, California. Note tongue and groove siding.

Light Tower

The steel tower was built in 1914, to replace the earlier housing for the light. Originally (1890), the light was installed on top of a water tank, followed by a wood post set in a concrete foundation, which were painted white. The steel tower was 18 feet square at the base and 35 feet tall, with the lens located on the top of the tower. Immediately below this was an enclosed section known as the watch room, accessible via a hatch. As described above, the earthquakes of October 22, 1926 caused serious damage to the lens and structure. This light was soon replaced. The tower was seriously deteriorated by the early 1960s, and the 1" hand rails were reduced to less than ½" diameter. The steel light tower was taken down in 1976 for safety reasons.



Figure 78. Overview of light station with light tower visible at left, 1953. U.S. Coast Guard photograph, U.S. Coast Guard Historian's Office, Washington, D.C. Note fog whistles are missing from gable end of fog signal building (replaced by automated system)



Figure 79. Steel light tower, ca. late 1950s. U.S. Coast Guard photograph, California State Parks.



Figure 80. Steel light tower adjacent to water tank, 1957, California State Parks



Figure 81. Steel light tower adjacent to tank house, 1961, California State Parks



Figure 82. Steel light tower following dismantling by state, 1982. Catalog #24754 Catalog #24743, California State Parks, Archaeology Laboratory, West Sacramento.



Figure 83. Steel light tower, 2005.



Figure 84. Steel light tower, 2005.

Water Tanks

Numerous water tanks were established on the island at various times. A 4,500 gallon water tank was built in 1894. In 1896, a larger 35,000 gallon water tank was built on a masonry foundation. A new 40,000 gallon tank was constructed in 1928, replacing an earlier tank. A temporary circulating tank was also built, which would “sweeten” the water before it was stored in the larger 40,000 gallon tank. This was designed to remove the redwood stain from the new lumber (U.S. Treasury Department 1928). The large tank was supposed to provide all domestic water needs, but the water was not suitable for cooking or drinking. It was only used for bathing and cleaning. In 1949, there were three redwood tanks remaining: 12,000 gallon, 35,000 gallon, and 20,000 gallon. The 12,000 gallon tank appeared to be original.



Figure 85. Fog signal building with water tank at right, 1957. California State Parks



Figure 86. Water tank adjacent to fog signal building, 1957. Concrete retaining wall is visible in left foreground, Oil storage house and paint locker in rear, California State Parks.



Figure 87. Foundation for water tank adjacent to fog signal building, 2005. Concrete retaining wall is visible at rear.

Tank House

This hexagon-shaped structure was constructed of wood, and measured 16'6" on each side. It contained a 38,000 gallon water tank. Prior to the construction of the steel tower, the light was placed on top of this building. The building was dismantled by the state in 1962. The area around the tank was "cleaned-up" of all debris at that time.



Figure 88. Tank house with light at top, unknown date (prior to the construction of the light tower in 1913). California State Parks



Figure 89. Tank house in between light tower (on left) and flag pole (on right), 1926. Jack Chambers photograph, California State Parks.

Water-shed and Cistern

Built in the 1870s, the water shed (also referred to as rain shed) consisted of a large cemented area measuring approximately 115' x 160.' At the base of the water shed was a concrete cistern, which caught and stored the collected water. This water was then pumped into a large water tank above. From here, it was gravity fed to the dwellings. A wood walkway was installed along the inside edge of the lower portion of the water-shed, likely to provide access to the cistern. The cistern was frequently whitewashed. A hatch provided access to the interior. There were actually two cisterns in place on the island by 1949, one with a 4,000 gallon capacity, and the other 75,000 gallons. The smaller one appeared to be that adjacent to the keeper's dwelling.



Figure 90. Cistern at the base of the water shed, with fog signal building visible at right, 1957. California State Parks.



Figure 91. Water-shed looking northeast, 2005. Base of light tower is visible at top of photograph.

Boathouse

This structure, also known as the storehouse or warehouse was built in 1900. The building was located at the end of the pier. It measured 18' x 30,' and contained two stories, with the lower on the beach and the upper at the level of the tramway. It also contained a hoist. Supplies for the fog signal building were hoisted by block and tackle from the landing to the upper story of the boat house, and from there into a tram car. These cars were pushed by hand along the tramway. It was completely destroyed by fire sometime in the late 1950s.



Figure 92. Aerial photograph of south portion of Año Nuevo Island, looking west, 1948. Note pier and boat house at end. Reginald McGovern photograph, Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 93. Boathouse at end of tramway, unknown date. Courtesy, U.S. Lighthouse Society, San Francisco, California.



Figure 94. Overview of island with boat house, coal house, and carpenter's shop visible at right, 1953. U.S. Coast Guard photograph, U.S. Coast Guard Historian's Office, Washington, D.C.



Figure 95. Foundation of boathouse to left of modern blind, 2005. Pier is visible at left.

Coal House

This facility was connected to the boathouse (or was a part of it). It was a wood frame structure measuring 14' x 30.' Fuel, such as coal and distillate was stored in this building. It was apparently built in 1900 (some sources say 1922), and was also referred to as the coal shed, as well as warehouse. The building burned down in 1955.

Tool House or Carpenter's Shop

This building was located immediately adjacent to the boathouse and coal shed. Little else is known about its date of construction, though it appears to correspond to the what was referred to as the warehouse, which was a wood frame building, measuring 20' x 30.' The building burned down in 1955.

Fuel Storage/Paint Locker Building

This concrete structure measured 13' x 27,' and was connected to the boat house by the tramway. It was apparently built in 1908. Though plans for the building could not be located, it appears to be similar to those constructed at other locations during this same period. At Point Conception, for example, the concrete and steel oil house measured 26' x 14,' was built upon concrete piers and a 5 1/2" thick concrete slab floor. A single steel door consisting of a 3/16" plate with two 2 1/2" riveted hinges provided access into the front of the structure. Four windows (two on each side) were also in place. The fuel storage building at Ano Nuevo building began to deteriorate soon after the Coast Guard abandoned the station, and concrete began spalling off of the reinforcing rods. Cement patches have been applied to many places on the building. Several types of doors and

window coverings have been installed on the building over the years of its operation. The building continues to deteriorate rapidly, particularly on the roof, where spalling is a major problem.

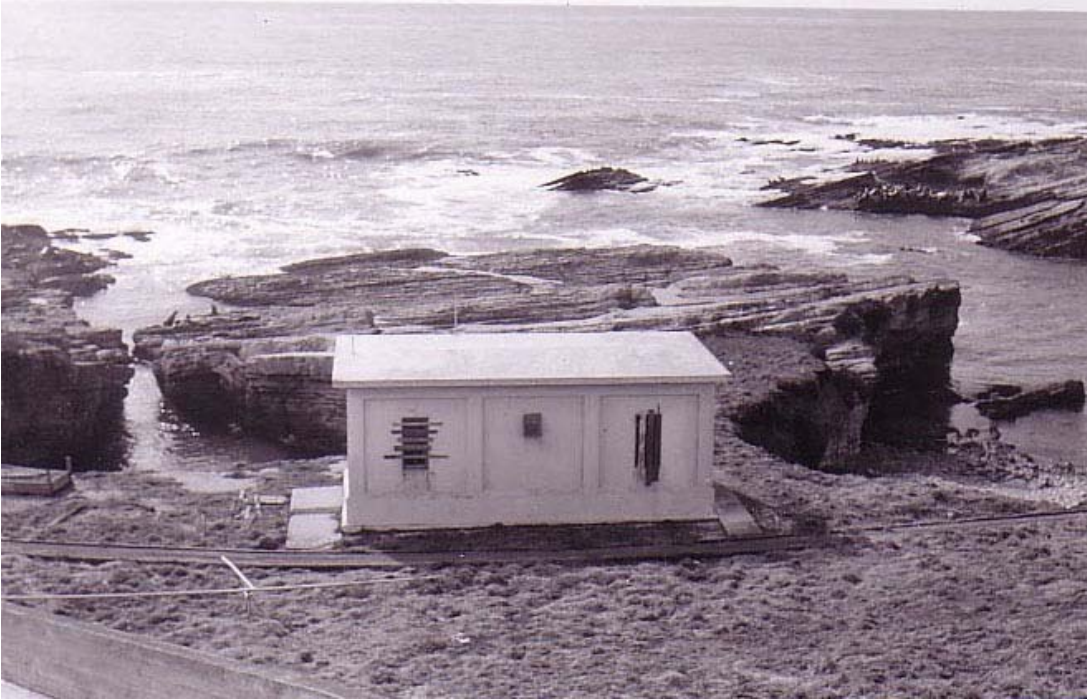


Figure 96. Fuel Storage/paint locker building, 1957. California State Parks.



Figure 97. Fuel Storage/paint locker building, looking southwest, 2005.



Figure 98. Fuel Storage/paint locker building, looking southeast, 2005.



Figure 99. Interior of fuel storage/paint locker building, 2005.

Lookout Building

This small, wood structure was located to the southeast of the Keeper's dwelling, on the southwest corner of the island. It measured 6' x 6,' with a wood plank platform measuring 17'x 11.' It is no longer in place.

Distillate House

This structure was referred to as early as 1904 in the keeper logs (although it may have been built earlier). Its date of construction is not known. Distillate used in the light was stored in this structure, and was blown from drums to storage tanks by use of a pump and several pipelines. For this reason, the structure was also referred to as the pump house. It consists of concrete blocks with a wood roof.



Figure 100. Fog signal building (1899 portion) looking southeast. Distillate building is small gable-roof structure in front, to left of seawall, 2005.

Pier

A pier or wharf was one of the first elements built on the island in 1872. Supplies were provided to the island from this pier and trips to and from the island were made from it. Because of difficult condition, the pier was frequently repaired. The existing pier appears to be relatively recent, though a section of the pier built in 1932 remains.



Figure 101. Wharf and pier ca. 1961. California State Parks.



Figure 102. Pier/wharf, 2005. Remains of pier built in 1932 is visible at left.

Other Landscape Elements

Many other features built on the light station particularly those of wood were either burned by trespassers, or reused in later structures. As a result, very few remain today.

Wood Walkway

There were several wood walkways connecting buildings. One portion measured 500 feet long, complete with hand railings. Small trestles were constructed over several gullies on

the island for the walkways. The walkways were frequently repaired, being completely rebuilt in 1894. Decking consisted of 2" x 12" lumber. Gravel was poured along walking pathways, as well as along the edges of the boardwalk.

These were all broken up and torn apart by visitors to the island in the late 1950s and early 1960s, who used most of the wood for campfires. This may have been the cause of the fire that destroyed the boat house.



Figure 103. Remains of wood walkway connecting keeper's dwelling with fog signal building, 2005.



Figure 104. Portion of water tank structure, with wood stairway leading up to it, ca. 1961. California State Parks.

Concrete Walkways

Concrete walkways were built around the fog signal building in 1900 and the dwelling sometime thereafter. Those around the keepers' dwelling have eroded significantly and are largely gone today. Concrete walkways remain around three sides of the fog signal building, however.



Figure 105. Remains of concrete walkway near keeper's dwelling, 2005.

Windbreak

The windbreak was located on the south side of the island, constructed upon 4" x 6" x 10' studs, and painted frequently to protect it from the weather. It was blown down during high winds in February 1926. It was apparently rebuilt with 12 foot tall pickets, extending for approximately 253 feet. No trace of this feature remains today. The wood was likely burned or re-used for other purposes.

Fence

A board fence was constructed at some point, measuring 367 feet long, with various heights. No trace of this feature remains today. The wood was likely burned or re-used for other purposes.

Tramway

Built in 1872, the tramway or trestle measured 290 feet in length, and was 4'4" wide. It contained steel rails, two inches wide x ½ inch thick. Oregon fir planks, measuring 2"x12" were coated with a crude oil mixture and nailed directly onto 4" x 4" redwood stringers. The tramway, as with the walkway, required frequent repairs and cleaning. It was also cleared of weeds and sand on a regular basis. In 1894, it was overhauled and repaired, with 675 feet of it renewed with new iron rails. A turntable was also built in order to eliminate the long curve, thereby shortening the track. No trace of this feature remains today. The wood was likely burned or re-used for other purposes.

Retaining wall

This concrete wall measured 180' long, of varying height, and was located at the water's edge in front of the fog signal building. It was built in 1886.

Phone Line

A pole supported a single span across the water to the mainland, and was frequently knocked out during high winds. The phone pole is no longer in place, and phone lines were removed sometime following the abandonment of the island by the Coast Guard.

Refuse

A great deal of abandoned equipment remains on the island. The source of this material is difficult to trace. While some of it dates to the period of the operation of the light station, a great deal more has been brought to the island as a part of biological investigations occurring since the early 1960s. A large brick pile is in place in the northwest portion of the island, immediately adjacent to where the tramway originally ran. Many of these bricks contain the name "Cowen." It appears that these were firebricks produced by the Joseph Cowen & Company. The company was founded in Blaydon-on-Tyne, England, and operated between roughly 1823 and 1904. The company may have been originally named Foster & Cowen. The firm was taken over in 1893, and operated until 1946 (Piwarzyk 1996). These bricks are now being removed and used across the island in order to create nesting habitat for various bird species.



Figure 106. Brick pile, 2005.



Figure 107. Brick pile looking east, 2005



Figure 108. Concrete encased phone pole, 2005.



Figure 109. Various iron refuse on beach on southwest portion of island, 2005.

Site Layout

The interrelationship of the buildings, structures, fences, paths, tramway, and pier is important in the history of the island. The relationship between these features was planned to create flow, which provided for ease of moving people, goods, and equipment to various activity centers on the island. These activity areas can be broken into the following:

- Housing (keeper's dwelling, assistant keeper's dwelling, chicken house, gardens)
- Storage (pier, boat warehouse, coal shed, carpenter shop)
- Navigational Aids (fog signal building, light tower, rain shed, cistern, water tank)
- Open/unused areas (rocky and sandy coves, west end of island)

The first three activity areas were linked by the wood walkways, catwalks, as well as the tramway. Unfortunately, the discernment of these activity areas today is difficult. Many of the features themselves are gone. The routes of passage connecting these areas together are also gone.



Figure 110. Año Nuevo Island Light Station, 1953. U.S. Coast Guard photograph, U.S. Coast Guard Historian's Office, Washington, D.C.

Recommendations

National Register of Historic Places

Año Nuevo Island Light Station has never been officially evaluated for potential for listing in the National Register of Historic Places. All previous surveyors have remarked only on the deteriorated nature of the remaining structures, and their eventual demise.

To be eligible for listing in the NRHP, a light station must be significant in American history, architecture, archaeology, engineering, or culture, and possess integrity of location, design, setting, materials, workmanship, feeling, and association. It must also meet at least one of the following criteria:

- A. be associated with events that have made a significant contribution to the broad patterns of our history; or
- B. be associated with the lives of persons significant in our past; or
- C. embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. have yielded, or may be likely to yield, information important in prehistory of history.

According to the National Park Service (Delgado and Foster nd), aids to navigation may qualify for listing in the NRHP through their association with several historic themes including the following:

Art
Commerce
Communication
Engineering
Entertainment/Recreation
Government
Invention
Literature
Military
Social/Humanitarian
Transportation

For the case of the Año Nuevo Island Light Station, its significance derives from its important role in the development of commerce and transportation along the California coast. Numerous wrecks along the particularly hazardous coastline south of San Francisco led to the creation of aids to navigation at Pigeon Point first, followed by this station at Año Nuevo Island. The combination of these two stations greatly improved the safety of shipping along this portion of the treacherous coast. As such, the complex appears eligible for listing on the NRHP under criteria a, with a period of significance

between 1872 and 1948. The boundary would encompass the entire island. The island could be considered a historic district, with contributing and non-contributing elements. Those remaining structures built within the period of significance will most likely be considered contributing elements, while those constructed after that time will be non-contributing. Because of its deteriorated nature, however, the largest issue in its eligibility lies in its integrity. Does the complex retain sufficient integrity to reflect its significance?

Integrity

Integrity relates to a property's ability to reflect its historic associations. There are seven aspects of integrity that must be considered. These include location, design, setting, materials, workmanship, feeling, and association.

Location

The station has not been moved, and thus retains integrity of location.

Design

Unfortunately, the station has lost several structures integral to its integrity of design. Most importantly, the light tower was cut down, and the original tank house was removed. Several structures do remain, however, including most of the residential facilities as well as many ancillary resources. The residences (keeper's dwellings) have deteriorated to such an extent, however, that integrity of design has been compromised. Only the fog signal building retains integrity of design.

Setting

The physical environment of Año Nuevo Island has changed since its time as an active light station. Virtually all vegetation has disappeared. However, no modern development has occurred in the area adjacent to the island, thanks to the creation of Año Nuevo State Reserve, which has preserved the point in its natural state.

Materials

Materials consist of the physical materials used in a particular pattern or configuration. The Año Nuevo Island light station retains integrity of materials.

Workmanship

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. Because only some of the original features remain from the Año Nuevo Island light station, the integrity of workmanship can be considered compromised.

Feeling

This aspect of integrity consists of the intangible sense that a property has in reflecting or evoking its history. Aspects of the integrity of feeling remain strong at Año Nuevo Island, with the sense of isolation and the foreboding landscape is ever present. However, because many of the buildings and structures are now gone, it is difficult to get a "feel" for an active light station when on the island.

Association

Association is the direct link between a property and the event or person for which the property is significant. The first six aspects of integrity combine to form the association of the property. Overall, the Año Nuevo Island light station retains a low level of association.

Management

It is the recommendation of this report that the Año Nuevo Island light station has lost much of its integrity. As such, it cannot be considered eligible for listing in the NRHP as a historic district. The fog signal building, however, does retain sufficient integrity to make it eligible for individual listing in the California Register of Historic Resources (CRHR). The building is significant on the local level, and is “associated with events that have made a significant contribution to the broad patterns of . . . the cultural heritage of California (California Office of Historic Preservation 2005). The keeper’s dwellings have lost integrity, and the fuel storage building is not individually eligible.

According to the 1979 General Plan for the San Mateo Coast parks, “archaeological and historical values that exist in the unit shall be protected and interpreted.” The plan also states that the lighthouse complex on the island is “historically important.” A management program was to be developed for the island in cooperation with the University of California, Santa Cruz; the District Resource Ecologist; and the Resource Preservation and Interpretation Division. The plan also provides the directive stating: “Remove human developments and debris from Año Nuevo Island that may be a hazard or interfere with pinniped ecology... and goes further stating: “Some salvage of building materials from unneeded structures on Año Nuevo Island may be feasible. Structures not needed and unsalvageable shall be allowed to deteriorate, but shall be removed before they become a safety hazard or conflict with pinniped use” (California Department of Parks and Recreation 1979).

Current management issues related to the shepherding of natural resources on the island have precluded any consideration of the historic resources. There must be some balance between the protection of the natural and historic resources present on the island. Though restoration of the keepers’ dwellings is not feasible at this time, and public access will likely continue to be limited, some effort to preserve the existing conditions of the remaining structures should be made. Efforts should be focused upon the fog signal building.

The Año Nuevo Island Light Station complex is not eligible for listing on the NRHP. The fog signal building, however, should be considered eligible for individual listing on the CRHR. The building retains much historic fabric on the exterior as well as interior. These should be preserved, and only when necessary, replaced in-like-kind. This building should be preserved. The University of California, Santa Cruz has been periodically repairing the building (replacing roofing material, replacing windows, installing gutters, painting). These efforts have done much to preserve the building, though some have altered its historic character. The presence of the concrete seawall has also assisted in preserving the building. The lack of these two elements has led to significant deterioration of the keepers’ dwellings on the other side of the island. The fog signal building should not be allowed to deteriorate to this extent. Periodic maintenance is particularly important in the climate found on the island. Painting and preventing moisture intrusion (ensuring proper drainage) are two of the most critical aspects of the maintenance of the building. California State Parks should enter into a cooperative

agreement with USCS in the appropriate maintenance of this building. This should include provisions that will ensure appropriate treatment of the building.

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