

National Park Service  
U.S. Department of the Interior

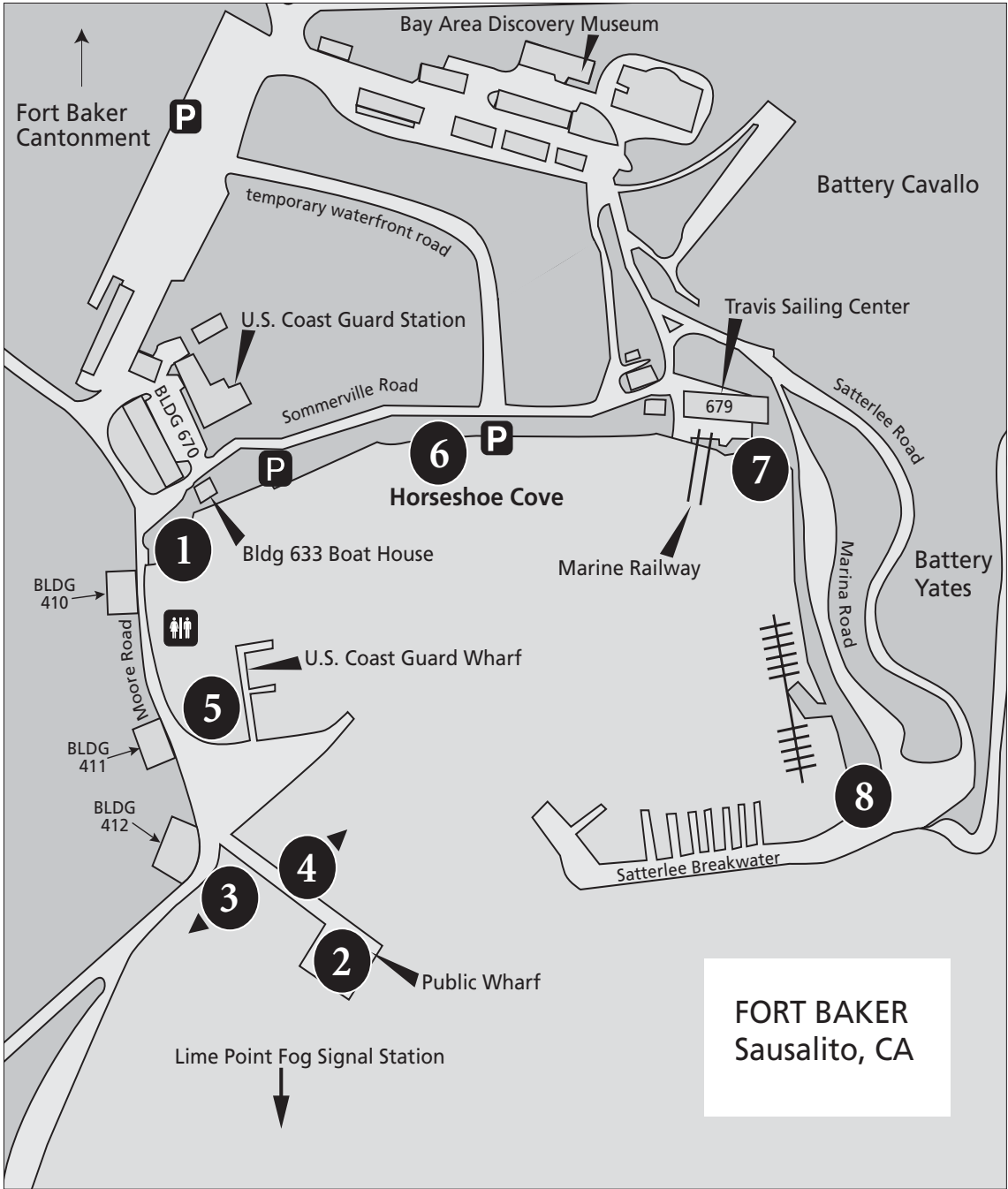
Fort Baker  
Golden Gate National Recreation Area



# Fort Baker History Walk

*Horseshoe Cove: A Water Haven on San Francisco Bay*





◀ indicates the direction you should look for this stop.



*Horseshoe Cove, with its naturally protected shape and location, has long offered respite from strong winds and currents at the Golden Gate. Native Americans found shelter and an excellent food source here, and later, ships discovered a safe harbor during bad weather. Horseshoe Cove played an important role in the San Francisco military defense system and today provides a quiet refuge from the busy San Francisco Bay's busy water traffic.*

## The Route

**Length:** 1/2-mile

**Number of stops:** 8

**Time required:** About 45 minutes

**Access:** The route is flat but only partially paved; some surfaces are uneven and not wheelchair accessible.

**Portable toilets:** Toilets are located next to the fishing pier, at the edge of the waterfront.

If you have any questions, please stop by the Marin Headlands Visitor Center (415-331-1540). The Visitor Center is located in the historic Fort Barry Chapel, at the intersection of Field and Bunker Roads, approximately 3 miles west of Fort Baker.

*Start the tour at the head of the Horseshoe Cove beach, in front of building 670 and the Coast Guard Station, at the corner of Moore Road and Sommerville Road (see the map).*

On the cover: Aerial view of Horseshoe Cove and Fort Baker. (photo circa 1950s)

# 1

## Early Inhabitants of Horseshoe Cove

Welcome to Horseshoe Cove. You can see why people were originally drawn here. The Huimen people, one of several Coast Miwok tribes, lived here first at Liuaneglua, a village located in what is now called Sausalito. In tule reed canoes, they plied these abundant waters for waterfowl, sturgeon and shark; harvested the rich oyster and mussel beds; and caught sea otters and seals.

The *San Carlos*, the first Spanish ship to sail into San Francisco Bay, anchored near these waters in 1775. According to the journal of Father Vicente Santa Maria, the religious leader of the *San Carlos* crew, the Huimens cautiously contacted the Spanish and for the next month, the two groups exchanged visits, gifts and ceremonies. As the ship prepared to leave the bay and return south, it was damaged by strong head winds. The Spanish ship spent the next 10 days in Horseshoe Cove while the crew made the necessary repairs before continuing on to Monterey.



This early photo of Horseshoe Cove provides you with an idea of what this gentle harbor looked like around 1905. The military had already begun to shape the surrounding land with the construction of Batteries Cavallo, Yates and Duncan. But at the water's edge, before the buildings and the breakwaters were constructed, there was only a curving sand beach with brackish marsh land to the north. (photo circa 1905)

With Spanish colonization came the introduction of new diseases and the establishment of mission communities meant to supplant the tribal society. In 1783, several members of the Huimen community were the first of the Coast Miwok to leave their homeland and migrate to Mission San Francisco. This initial migration was a sign of times to come; by 1810, the effects of Spanish colonization had completely ruptured the integrity of the tribal world of the Coast Miwok and all others indigenous to the San Francisco Bay Area. (The Coast Miwok survived successive waves of colonization, and today, with native people of Pomo descent, they comprise the Federated Indians of Graton Rancheria Indian tribe).

After Mexico gained independence from Spain in 1822, this land became part of Rancho Saucelito, a 20,000-acre Mexican land grant. Owned first by William Antonio Richardson, the Mexican-appointed San Francisco harbormaster, and then later by financier Samuel R. Throckmorton, this rancho encompassed much of today's southern Marin County.

*Now turn to your right and walk south toward the Golden Gate Bridge, with the water on your left. Continue until you reach the large fishing pier; take a left onto the fishing pier and walk to the end, facing the Golden Gate Bridge.*

## 2

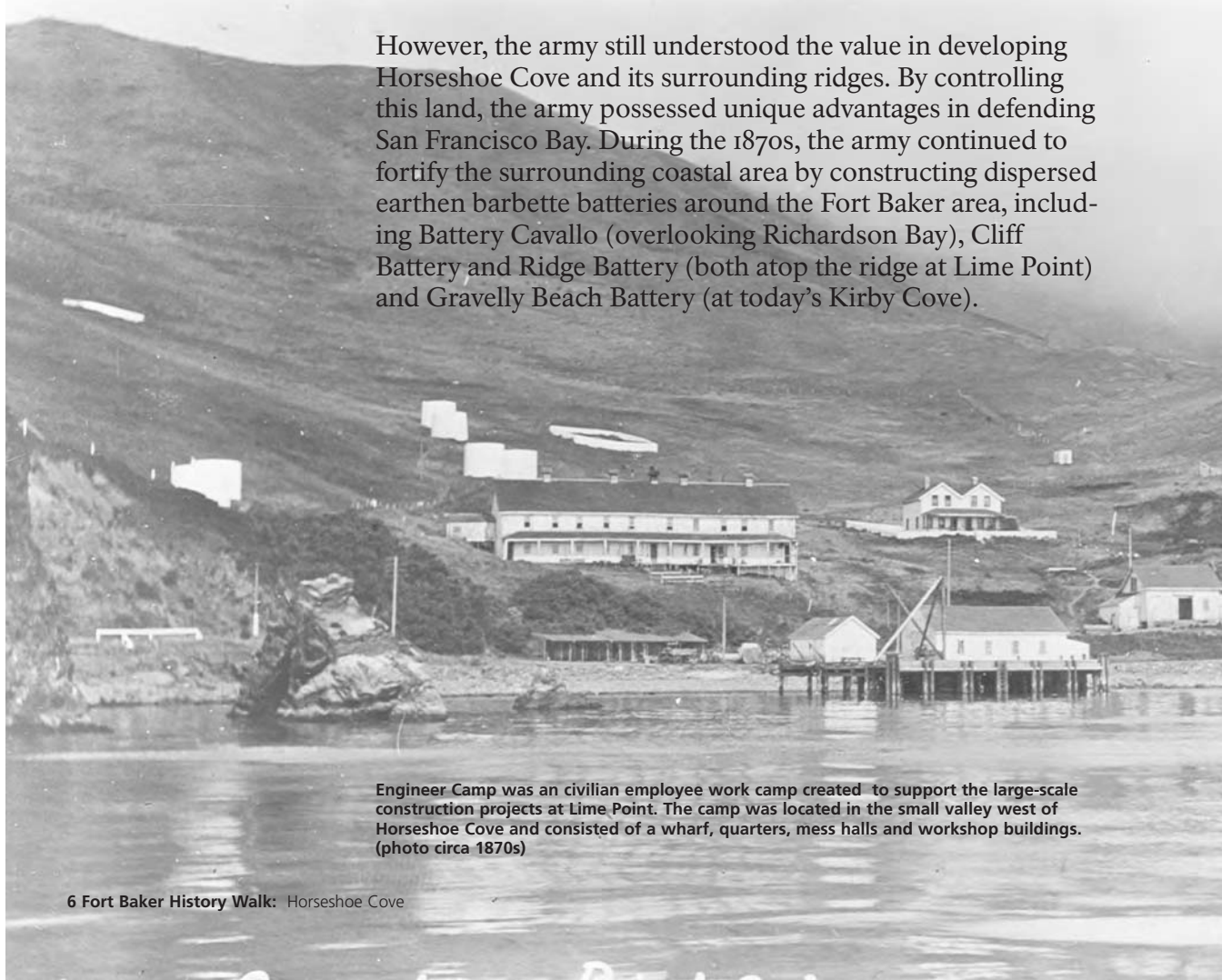
### **The United States Army Arrives**

Standing where you are today, you can imagine why the U.S. Army was so eager to purchase this spit of land. The narrow waterway, called the Golden Gate strait, was the sole entrance to San Francisco Bay, and the United States was very concerned with protecting the strategically-important opening from potential enemies. The U.S. Army purchased this land, nicknamed Lime Point for the amount of white-colored bird guano that covered the rocks, from Throckmorton in 1866.



The U.S. Army established the Lime Point Military Reservation in 1866 with the intention of constructing a brick fortification similar to Fort Point, which you can see on the San Francisco side of the Golden Gate. To prepare the site for this proposed reservation, the army made many physical changes to the west side of Horseshoe Cove, including blasting the rocky cliffs to clear away foundation space, constructing a breakwater that connected land to the several tall rocks (the Needles) and building a small wharf to facilitate the docking of supply boats. Ironically, after all this work had been completed, developments in military technology had advanced so greatly that the original proposed fort was now deemed obsolete and the army decided not to build the fort after all.

However, the army still understood the value in developing Horseshoe Cove and its surrounding ridges. By controlling this land, the army possessed unique advantages in defending San Francisco Bay. During the 1870s, the army continued to fortify the surrounding coastal area by constructing dispersed earthen barrette batteries around the Fort Baker area, including Battery Cavallo (overlooking Richardson Bay), Cliff Battery and Ridge Battery (both atop the ridge at Lime Point) and Gravelly Beach Battery (at today's Kirby Cove).



**Engineer Camp** was a civilian employee work camp created to support the large-scale construction projects at Lime Point. The camp was located in the small valley west of Horseshoe Cove and consisted of a wharf, quarters, mess halls and workshop buildings. (photo circa 1870s)



The Golden Gate Bridge was constructed between 1933 and 1937; the pier for the north tower abutted at the base of Lime Point. The Horseshoe Cove area was used as a staging area for construction activity. Note the fog signal station at the lower left and the bridge-related concrete mixing plant just north of the Needles. (photo circa 1934; courtesy of the Golden Gate Bridge District)

*Please stay on the pier, but turn to face the lighthouse buildings on the rocky point directly below the bridge's north tower.*

### 3

## Innovations in Navigation

In 1883, the U.S. Lighthouse Service built a fog signal station at the tip of Lime Point to alert ships, blinded by the fog, of the narrow and rocky channel. The steam-operated complex contained a brick station building with a two-family residence. The army later constructed a searchlight shelter on the roof of the station to support the seacoast defense system. Today, you can still see the remains of the original fog signal station and while the search light shelter and the residences have since been demolished, the fog signal is still in operation.

*Please stay on the pier, and turn around and face into the cove.*

## 4

### The Establishment of Fort Baker

During the 1890s, American military and technological improvements had a dramatic effect on Fort Baker and Horseshoe Cove. New developments in military technology had changed defensive strategic planning. The first innovation was iron siding on warships, which diminished their vulnerability to attack. The second innovation, directly related to the first, was the development of artillery shells that could pierce the iron-clad ships.



Battery George Yates, completed in 1905, is an excellent example of coastal fortification from the Endicott's period (1890 to 1905). Made of massive amounts of unreinforced concrete, this battery was constructed deep and low into the earth. Its stout construction and low-profile made it difficult for enemy gunfire to locate and attack. (photo circa 1973)

As a response, the Secretary of War, William C. Endicott, made sweeping recommendations for all existing U.S. seaports with proposals to modernize and re-arm all the seacoast forts. If you look right (east) to the tall ridge just above the boat slips, you can see Battery Yates, which is an Endicott-period concrete battery built along the edge of the water. Other Fort Baker batteries, including Batteries Spencer, Kirby, Duncan and Orlando Wagner, were all constructed as new state-of-the-art fortifications. The Endicott Program, 1890 to 1905, both evolved out of and gave an expression to America's new awareness of herself as a growing imperial power, the rise in the country's industrial strength and the new developments in military technology.



By the turn of the century, a major construction campaign began at Fort Baker to provide permanent housing for the soldiers of the newly organized Coast Artillery Corps, stationed here to man the seacoast defense batteries. Needing additional space, the army engineers filled-in the marshland at Horseshoe Cove to create 7 more acres of ground for their purposes. If you look up the hill to your left, you can catch a glimpse of the Fort Baker cantonment.



Fort Baker, constructed between 1902 and 1910, included barracks, a gymnasium, commanding officers' residences, a post headquarters, officers' quarters and a 12-bed hospital. (photo circa 1918; courtesy of Sausalito Historical Society)

*Walk back down the pier and take a right along Moore Road. Stop at the Coast Guard wharf and notice the buildings constructed into the hill.*

## 5

### World War II at Horseshoe Cove

Once again, advances in technology generated a dramatic shift in how countries defended themselves. Military improvements to airplanes and submarines rendered the early 20th-century warships obsolete. By World War II, battles were fought in the air with fighter planes and aircraft carriers, and underwater with submarines. America's coastal defenses had become outmoded since the Endicott Era, and new methods such as improved anti-submarine minefields and anti-aircraft batteries were added to San Francisco's fortifications.

During World War II, the Harbor Defenses of San Francisco, charged with guarding the harbor through the use of underwater minefields and shore batteries, constructed a mine depot at Fort Baker. The electric mines were anchored to the ocean floor and arranged in three minefields outside the Golden Gate, protecting the main shipping channel and its approaches; they were designed to be detonated by remote control when enemy ships or submarines entered the bay. As part of the mine depot, Coast Artillery soldiers worked as a team to lay the mines in the ocean waters outside the Golden Gate, ensure their maintenance and trigger the mines to explode in the case of invading enemies.



The army undertook a major construction project at Horseshoe Cove, building a submarine mine wharf to accommodate the large mineplanter ships. The new wharf, constructed with concrete and pilings, abutted the existing 1903 quartermaster supply wharf. Note Fort Bakers' open landscape in the background. (photo 1937)

Take a look behind you at the remaining mine depot buildings built into the hillsides (please refer to the route map). Building 412 contains mine-loading rooms, where the soldiers loaded the explosive charge into the mines just prior to planting them. Buildings 410 and 411 were mine explosive magazines where the ammunition was stored. If you look carefully, you can still see the “explosives” and “no smoking” signs. Building 409 was the power house and building 670 was the mine cable storage building, where the cables were stored in saltwa-

ter tanks to protect their rubber coatings from drying out and cracking. Out in the harbor, soldiers manned mineplanters, large ships equipped with powerful cranes and hoists for lowering and raising the electric mines. The mineplanters were berthed at docks in both Horseshoe Cove and Sausalito.



This World War II photograph shows Coast Artillery soldiers lowering an anchor with an attached buoyant mine. As a work-related perk, the soldiers would set out crab pots during crab season in Horseshoe Cove, in addition to the mines. At the end of the day, they brought their bounty back to Fort Baker. (photo circa 1942)

Horseshoe Cove continued to be a haven for repairing boats. In 1942, just months after Japan attacked Pearl Harbor, many commercial fishing boats were appropriated by the army to join the expanding mine flotilla. The army established the Fort Baker Marine Repair Shop to provide repairs for all boats but the largest mineplanters and the Marine Repair shop earned a great reputation as a well-run and efficient outfit. By 1943, the boatyard had three marine launchways; the one that survives today has a 6-ton capacity. In order to protect the new docks and launchways from the strong Golden Gate currents, the army built large breakwaters at the edges of the cove.

*Continue down Moore Road, past the location of Stop # 1 and take a right down Sommerville Road. Walk past the Coast Guard station and stop at the water's edge in the midpoint of the seawall.*

## 6

## The Harbor Defense System at Fort Baker

Horseshoe Cove at Fort Baker, with its mine depot, marine repair shop and series of seacoast fortifications, was part of a larger, integrated working defense system. Through the Harbor Defenses of San Francisco, the soldiers at Fort Baker were continually coordinating with soldiers at Forts Barry and

Cronkite in the Marin Headlands, and at Fort Winfield Scott, Fort Funston and Fort Miley in San Francisco. They also worked closely with the U.S. Navy at the Tiburon Net Depot and the sailors who operated the anti-submarine net that stretched across the bay from Sausalito to San Francisco.



Soldiers from the Medical Detachment, Fort Baker Station Hospital. (photo circa 1941)

In 1941, the Quartermaster Department constructed the Fort Baker Station Hospital on the shores of Horseshoe Cove to provide health care exclusively for the soldiers assigned to the Harbor Defense. However, as World War II continued and the action shifted to the Pacific

Theatre, fewer men were assigned to the batteries. The Fort Baker Station Hospital increasingly became a branch of Letterman General Hospital in the Presidio, which provided care to wounded soldiers returning from the war in the Pacific. This 229-bed, wood-frame hospital facility emphasized physical rehabilitation and preparing soldiers to return to civilian life. The Red Cross and the Armed Forces Entertainment Committee brought various entertainment acts and movies to the convalescing men.

*Continue down along Sommerville Road and stop at the Travis Sailing Center and wharves. Be mindful of potential tripping hazards. Note the old working wharves and the old railroad tracks used to transport boats to and from the Marine Repair Shop.*



The wood-frame buildings of the Fort Baker Station Hospital were physically connected with covered ramps and walkways, enabling the recovering soldiers, who often required crutches or wheelchairs, to move comfortably around the facility. These structures were removed in the 1980s and former hospital site is now vacant. (photo circa 1941, courtesy of the San Francisco Public Library)

## 7

### Later Military Functions

In the late 1940s, the Fort Baker Station Hospital was converted to the Medical Laboratory at Fort Baker. The laboratory divisions included immunology, entomology, pathology and chemistry. The armed forces of the western states sent in specimens and army scientists conducted experiments with bacteria, chemicals, radiation and lethal gases. Much of the research here had world-wide significance, and the army shared their findings with the World Health Organization.

During the 1950s and 1960s, Horseshoe Cove was the home of the 561st Port Construction Engineer Company. Dubbed the “Army’s Navy”, this group was trained to move quickly, anywhere in the world and often under combat conditions, to construct and repair ports. The 561st also conducted rescues and aided in civil emergencies. The soldiers, outfitted with diving helmets and scuba gear, had many underwater responsibilities, including inspecting piers, welding deteriorated ship hulls and clearing ship wrecks. They operated out of a huge barge that was capable of ocean voyages, and was outfitted with a 40-ton crane.



During the Cold War, Fort Baker was used for training U.S. Army Reserve troops and served as headquarters for the anti-aircraft missile units that defended the Bay



Soldiers of the 561st Port Construction Engineer Company bending rebar for a construction project. (photo circa 1960)

Area. After the Cold War, the nation's defense pro-gram was reduced in size, and as a result, Fort Baker took on a more limited military role. With far fewer soldiers stationed here, the barracks were not required and were converted into offices. In 1972, legisla-tion creating the Golden Gate National Recreation Area included Fort Baker within park boundaries, and in 1986,

much of the open space surrounding the fort transferred from the army to the

National Park Service. During the 1980s and 1990s, mili-tary and civilian personnel continued to operate the reserve troop training program and a number of military families lived on post. By August 2002, all military func-tions ceased here, and the U.S. Army transferred its remaining property to the National Park Service.

*Continue along in front of the Travis Sailing Center and then take a right, following Marina Road out to the breakwater. Fort Baker roads were named in honor of men who served here as commanding officers prior to World War II. Satterlee Road, located above Marina Road, was named for Second Lieutenant William G. Satterlee, Coast Artillery Corp, who died while a prisoner of war during World War II.*

## 8

### Natural Resources at Horseshoe Cove

Today, though many of the former military activities and buildings are gone, life continues here. The open water of Horseshoe Bay supports a great variety of fish, bird and mammal species, as well as more than over 200 individual eelgrass plants. Eelgrass is considered a special aquatic resource both because of its rarity and the high-quality habitat it provides for aquatic wildlife. Horseshoe Cove is part of the designated critical habitat area for winter-run Sacramento River chinook salmon; it is also part of the

Dungeness crab migratory corridor between the Farrallones and San Francisco Bay. Horseshoe Cove and the bay waters adjacent to Fort Baker are also one of the most important spawning areas on the Pacific coast for Pacific herring. Cormorants, gulls, California brown pelicans, western grebes, sea lions and harbor seals are also common visitors to Horseshoe Cove. The ridgetops above Fort Baker shelter one of the last remaining habitats of the endangered Mission Blue butterfly.

## LOOKING FORWARD

Horseshoe Cove has a bright future. The U.S. Coast Guard Station Golden Gate, residents of Horseshoe Cove since 1991, will remain here and continue to perform critical Bay Area search and rescue functions. The Travis Sailing Center, located in the former Marine Boat Repair Shop, currently provides sailing opportunities for military families and the public. In the future, the boat repair shop will be used as an education center. The Bay Area Discovery Museum, situated just north of the water, is an innovative children's experiential museum that has re-used historic army buildings.

Currently, visitors enjoy many recreational opportunities here. You can fish off the pier, and crab, when in season. Boat launches, day-mooring and sailing are also available. Hike along the breakwater promenade and explore the beach at low tide. The Golden Gate National Recreation Area has plans for many waterfront improvements, creating opportunities for visitors to experience the area's scenic beauty and to hike, fish, crab, bike, sail, kayak, picnic and explore. Plans call for the wooden bulkhead to be removed and the beach area to be restored, creating an adjoining 6 acres of meadow, highlighted by a picnic area and a boardwalk.



Harbor seals are among the many of the animals that frequent Horseshoe Cove. (photo circa 2004; courtesy of the Marine Mammal Center)

This marks the end the walking tour. Feel free to continue up the hill and explore Battery Yates or walk back up to the Fort Baker cantonment. Thank you for visiting Horseshoe Cove and please return again to discover yet more wonderful stories of this protected bay.



**Golden Gate National Recreation Area**

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Lime Point in 1868; the army constructed the breakwater that leads to the Needles. (photo circa 1868)