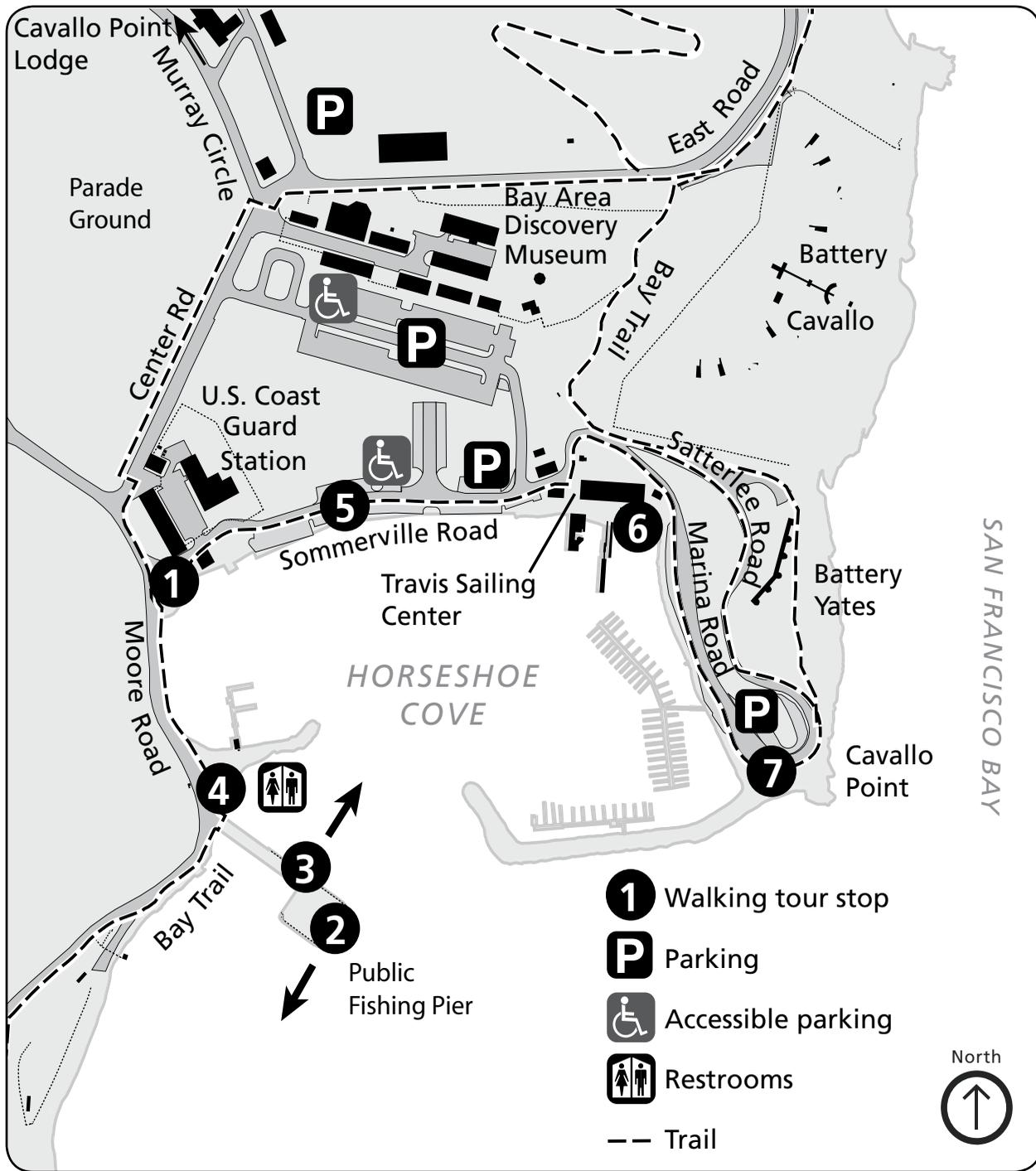


Fort Baker History Walk

Horseshoe Cove: A Historic Marina at Fort Baker



When the U.S. Army purchased Lime Point in the 1860s, they constructed a breakwater out to the rock outcropping, informally known as the Needles, to shelter their wharf from waves entering the bay.
(Photo circa 1869)



All images from Golden Gate National Recreation Area, Park Archives and Record Center, unless otherwise noted.

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The Route

- Length:** ½ mile
- Number of stops:** 7
- Time required:** About 45 minutes
- Accessibility:** The route is flat, but only partially paved; some surfaces are uneven and not wheelchair accessible.
- Restrooms:** Portable toilets are located across the street from the Coast Guard pier.

If you have any questions, please phone (415) 331-1540 or visit the Marin Headlands Visitor Center, located approximately 3 miles from Fort Baker in the historic Fort Barry Chapel.
www.nps.gov/goga/planyourvisit/fort-baker.htm

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, as part of Fort Baker, played an important role in the San Francisco military defense system and today provides a quiet refuge from the San Francisco Bay's busy water traffic.

To begin the tour, start at the head of the Horseshoe Cove beach, at the corner of Moore Road and Sommerville Road (see the map).

Cover photo: Aerial view of Horseshoe Cove and Fort Baker, (Photo circa 1950s)



This early photo of Horseshoe Cove provides you with an idea of what this gentle harbor looked like around 1900. 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 curved sand beach with brackish marshland to the north. (Photo circa 1900)

1 Early Inhabitants of Horseshoe Cove

Welcome to Horseshoe Cove. It is easy to understand why people were originally drawn to this quiet and protected cove. 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 Father Vicente Santa Maria, the religious leader on the *San Carlos*, 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.

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 de Asis. 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 colo-

nization, and today, with native people of Pomo descent, they comprise the Federated Indians of Graton Rancheria Indian tribes).

After Mexico gained independence from Spain in 1822, the surrounding area became part of Rancho Saucelito, a 20,000-acre Mexican land grant. Owned first by William Antonio Richardson, the Mexican-appointed San Francisco harbor-master, 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 to Moore Road; take a left onto Moore Road and walk south towards the direction of San Francisco. The cove and the small, private Coast Guard pier will be on your left. When you reach the large, public fishing pier, take a left onto the pier and walk to the end. Face south towards 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 piece of land. This 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 any potential enemies.

The U.S. Army purchased this land from Samuel Throckmorton in 1866. The Army established this point, nicknamed Lime Point for the amount of white-colored bird guano that covered the rocks, as the Lime Point Military Reservation. The army's intention was to construct a brick fortification that would match Fort Point, the Civil War fort located on the San Francisco side of the Golden Gate. To prepare the site for this proposed reservation, the army made many physical changes to 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 (nicknamed the Needles) and building a small pier to facilitate the docking of supply boats. Unfortunately, as the army was establishing this site, concurrent developments in military technology had so greatly advanced that by the time the army was ready to begin construction, the original proposed fort was deemed obsolete. Ultimately, the army decided to discontinue the construction of the proposed fort.

However, the army still understood the value in developing Horseshoe Cove and its surrounding ridges because by fortifying this area, the army could well defend San Francisco. During the 1870s, the army

continued to construct dispersed earthen barbette batteries around Fort Baker's coastline. The new batteries included 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).

Navigational Aids

Now turn your attention to the small buildings located at the point almost directly under the bridge's north tower. 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 and a two-family residence. The army later constructed a searchlight shelter on the rock to support the seacoast defense system. Today, you can still see the remains of the original fog signal station and while the searchlight shelter and the residences have since been demolished, the fog signal is still in operation.

Please stay on the pier, but now turn around to face inwards towards the cove.

Right: Engineer Camp was a civilian employee construction site 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 working pier, sleeping quarters, mess halls and workshop buildings. (Photo circa 1870s)

3 The Endicott Period

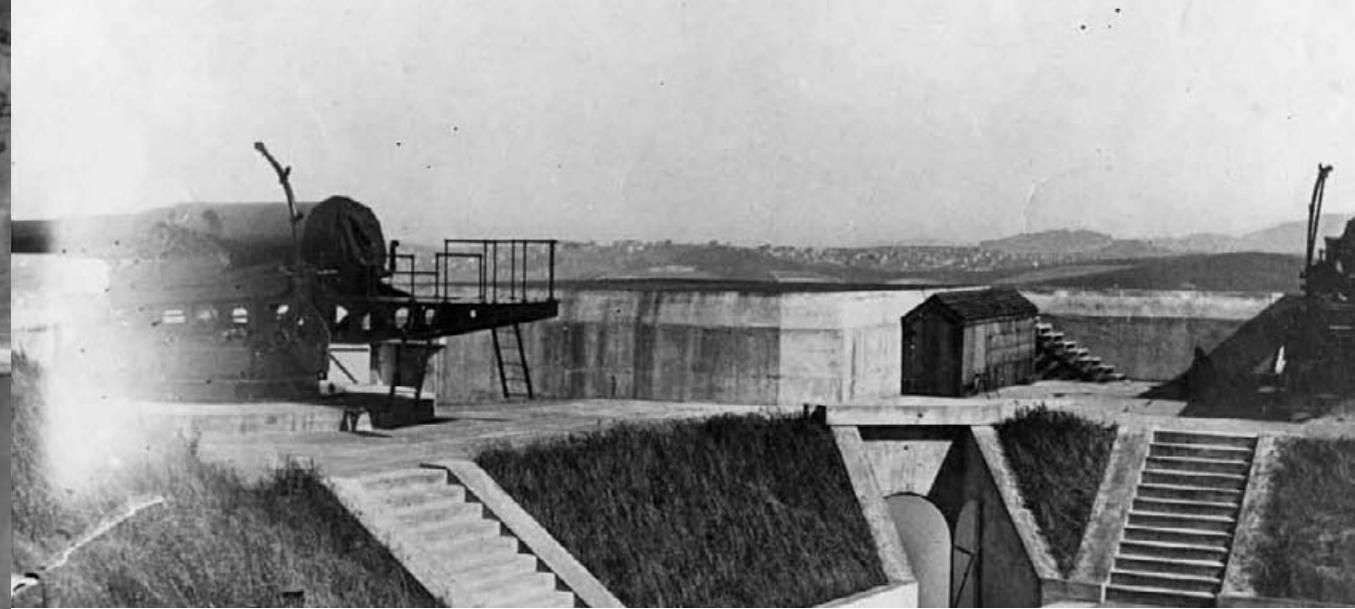
By the 1890s, the War Department, concerned about the dilapidated condition of the country's seacoast fortifications, made sweeping recommendations to modernize and re-arm all the existing U.S. seaports. The "Endicott Board", informally named after the Secretary of War, William C. Endicott, ranked San Francisco second only to New York in the importance of harbor defense, and the most important on the nation's Pacific shore. Recent advances in military technology, such as the new development of iron-clad warships, significantly impacted the army's plans for any new defense batteries.

Fort Baker was established to serve and support the new and improved Endicott-period batteries. If you look towards the east, to the tall ridge just above the boat slips, you can see Battery Yates, an Endicott-period concrete battery built along the bluffs overlooking Horseshoe Cove. Other Fort Baker batteries, including Battery Duncan (facing Angel Island), and Batteries Spencer, Kirby, and Orlando Wagner (located on the west side of the Golden Gate Bridge) were all constructed as part of this new state-of-the-art fortifications program. The "Endicott Program" operated from 1890 to 1905; the military





Above: The Golden Gate Bridge was constructed between 1933 and 1937. The pier for the north tower abutted the base of Lime Point and 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 courtesy of the Golden Gate Bridge District, circa 1934)



Above: Battery Spencer, one of Fort Baker's new batteries, was constructed in 1893 high above the Golden Gate Strait. The new Endicott batteries were constructed of concrete rather than the brick Civil War batteries and were partially buried behind wide parapets of earth. The cannon, mounted individually or in pairs, had guns capable of firing farther than their predecessors. (Photo circa 1910)

modernization effort became an expression for 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. While the batteries are not included in this tour, feel free to explore them on your own.

The army created the new Coast Artillery Corps and assigned soldiers to this area to operate the new seacoast defense batteries. The men first stationed here were living in tents north of Horseshoe Cove. Recognizing the need for permanent military housing, the army constructed Fort Baker between 1902 and 1910. The new post functioned as a self-sufficient, small village and included soldier barracks, officers' quarters, a commanding officer's residence, a post headquarters, a 12-bed

hospital, stables, bakeries and a gymnasium. If you look up the hill to your left, you can see the white Fort Baker buildings clustered around the main parade ground.

Now walk back down the pier and stop just where Moore Road begins again. Notice the mine depot buildings directly in front of you.



Above: Fort Baker, 1918. Military buildings are aligned around the main parade ground, with direct views of Horseshoe Cove. (Photo courtesy of Sausalito Historical Society, circa 1918)

Left: Coast Artillery soldiers conduct target practice at one of the new Fort Baker batteries. Endicott-period batteries were made of massive amounts of unreinforced concrete and were constructed deep and low in the earth. Their stout construction and low profile protected them from enemy gunfire. This photo has been partially restored. (Photo circa 1909)



Notice the scenery immediately behind Coast Artillery Sergeant Ed Larson at Fort Baker in December, 1941. After Pearl Harbor was bombed, the Harbor Defenses of San Francisco protected the beaches from enemy invasion by stretching two layers of razor-wire fencing across the water's edge. (Photo circa 1941)

4 The Fort Baker Mine Depot

During World War II, Fort Baker was managed by the Harbor Defenses of San Francisco, an army division responsible for defending the area's coastline from naval attack and for ensuring the safety of friendly shipping. Technological advances in airplanes and submarines led to World War II battles being fought in the air with fighter planes and underwater with submarines. As a result, new defenses such as improved anti-submarine minefields and anti-aircraft batteries, were now added to San Francisco's fortifications.

In 1941, the Harbor Defenses of San Francisco constructed a mine depot at Fort Baker. It was responsible for guarding the harbor and the very important shipping

channel with underwater minefields and shore batteries. These minefields consisted of hundreds of buoyant TNT-filled mines, operated from shore by an elaborate system of underwater sensors, electric cables and submerged junction boxes. These electric mines were anchored to the ocean floor in minefields outside the Golden Gate through a complex series of cables, weights and floats. To install the mines, Coast Artillery soldiers operated "mine planters;" large ships docked at Horseshoe Cove with powerful cranes and hoists for raising and lowering the mines into the water. If an enemy ship or submarine was identified, the Coast Artillery soldiers would detonate the mines by remote control.



As early as 1937, as part of the pre-war mobilization effort, the army constructed a submarine mine wharf to allow large mine planter ships to dock at Horseshoe Cove. The new wharf, built with concrete and pilings, was a large-scale construction project abutting the 1903 quartermaster supply wharf. Note Fort Baker's open landscape in the background. (Photo circa 1937)

Walk north along Moore Road, back towards Sommerville Road, looking to your left. The Fort Baker mine depot buildings, identified by the white-painted, concrete entrances, are located along the west side of Moore Road.

Construction of the WWII Mine Depot at Fort Baker greatly changed the look of Horseshoe Cove with the addition of breakwaters, a wharf and various structures. The critical activities at the mine depot required soldiers to come in close contact with highly flammable explosives, and the depot structures reflect that dangerous aspect of the job. To avoid accidental explosions, the dynamite storage rooms,

or magazines, were built into the hillside where it was continually cool and dark. Closest to the wharf was Building 412, the Mine Loading Room. In its dark, concrete rooms, soldiers cautiously poured granular dynamite into the mines just before they were loaded on mine planting ships. In order to smoothly load the mines onto the planter ships, the army built two breakwaters to protect the cove from excess waves.

Building 411 is the magazine where the dynamite was stored. If you look carefully at Building 410, where the detonators were stored, you can still see the "explosives" and "no smoking" signs. Building 409 contained a generator that provided electricity



This World War II photograph shows Coast Artillery soldiers carefully lowering an anchor with an attached buoyant mine. There were some advantages to this type of work. During Dungeness crab season, as a work-related perk, the soldiers would set out crab pots, in addition to the mines, off the shores of Fort Baker. At the end of the day, the soldiers would bring their seafood bounty back to the mine depot to share among the men. (Photo circa 1942)

to the entire Mine Depot. Building 670, the corrugated-metal building at the corner of Moore and Sommerville roads, was the Cable Storage Building, where the numerous reels of underwater cables were stored in large salt water tanks to protect their rubber coatings from drying and cracking.

Continue down Moore Road. When you reach Sommerville Road, take a right onto Sommerville and walk past the Coast Guard headquarters. Stop at the water's edge in the midpoint of the seawall near the parking area. Now turn around, with your back to the water. You are now at the location of the historic Fort Baker Station Hospital.

5 The Fort Baker Station Hospital

In 1941, the Quartermaster Department constructed the Fort Baker Station Hospital on the shores of Horseshoe Cove to provide health care for the Harbor Defense of San Francisco soldiers. This 229-bed, wood-frame hospital facility placed an emphasis on physical rehabilitation and preparing soldiers to return to civilian life. The Fort Baker Station Hospital buildings were connected by covered ramps and walkways, enabling the recovering soldiers, who often required crutches or wheelchairs, to move

comfortably around the facility. The Red Cross and the Armed Forces Entertainment Committee brought various entertainment acts and movies to the convalescing men.

Overtime, as World War II continued and Harbor Defenses responsibilities were reduced, the Station Hospital increasingly became a branch of the Presidio's Letterman General Hospital, which continued to provide care to wounded soldiers returning from the war in the Pacific. In



This photograph shows the Fort Baker Station Hospital at the height of activity. (Photo courtesy of the San Francisco Public Library, circa 1940)



Above: Soldiers from the Medical Detachment, Fort Baker Station Hospital. (Photo circa 1942)

the late 1940s, the Fort Baker Station Hospital was converted to the Fort Baker Medical Laboratory. The laboratory divisions included immunology, entomology, pathology and chemistry. The armed forces of the western states sent in specimens and the army scientist conducted experiments with bacteria, chemicals, radiation and lethal gases. Much of their research here had world-wide significance and the army shared their findings with the World Health Organization. By the 1970s, the army discontinued the use of the hospital buildings and removed them in the 1980s.

Turn to your right and continue down Sommersville Road, stopping at the Marina and Travis Sailing Center. Be mindful of potential tripping hazards. Note the old working wharves and the old railroad tracks used to transport boats to and from the historic Marine Repair Shop.

Far Right: An army soldier pilots a mine planter boat out of Horseshoe Cove. In the background, a boat has already been hauled out of the water along the marine railway tracks and is now ready to enter the boat repair shop for routine maintenance. Most of the buildings in this photo are no longer standing. (Photo circa 1942)

6 Military Marine Activities

During World War II, Horseshoe Cove was the home to the Fort Baker Marine Repair Shop. In the winter of 1942, after the Japanese attacked Pearl Harbor, the army faced a military boat shortage as the Harbor Defenses of San Francisco realized that they needed boats to defend San Francisco Bay. As a result, the army appropriated several commercial fishing boats from San Francisco's thriving fishing industry to add to the army's mine flotilla. In order to maintain all the newly conscripted boats, the army established a marine repair shop at Horseshoe Cove. The Fort Baker marine repair shop, constructed in 1943, earned a great reputation as a well-run and efficient outfit. The facility boasted two, parallel marine railways; one with a 6-ton capacity and one with an impressive 100-ton capacity. Small vessels were loaded out of the water onto a boat cradle and hauled up the wharf or they were pulled up marine railway tracks and into boat shop buildings for repairs.

Today, only remnants of the once-bustling facility remain. The long white building in front of you, now the Travis Sailing Center, is the last existing boat repair shop. You can still see the metal marine railway as it comes out of the building and runs down the dock to the water. The large, wooden pier that stands isolated in the water was originally the facility's fuel dock. When first constructed, the fuel dock was over 140 feet long with a 10 ton crane. The 100-ton capacity marine railway has since been removed.

Horseshoe Cove, with its mine depot, marine repair shop and series of seacoast fortifications, was part of a larger, integral working defense system during World War II. As part of the Harbor Defenses of San Francisco, the Fort Baker soldiers were continually working with the soldiers at Forts Barry and Cronkhite 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 Naval Net Depot where soldiers operated the anti-submarine net that stretched across the bay from Sausalito to San Francisco.





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

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

This marks the end of the accessible part of the walking tour. Feel free to stop here at the east end of the beach, enjoy the views and then retrace your steps back to the start of the tour. If you would like to continue out to the Satterlee Breakwater, continue to walk in front of the Travis Sailing Center and walk over the small bridge-way. Then take a right onto Marina Road, which is the dirt road that runs along the east edge of the cove. At the south end of Marina Road, you can either take a right onto the breakwater or take a left, up the hill, and explore Battery Yates.

7 Natural Resources at Horseshoe Cove

Today, many of the former military activities and buildings are gone, but much life continues here. The open water of Horseshoe Bay supports a great variety of fish, bird and mammal species. These waters contain eel grass plants which are considered a special aquatic resource both because of its local rarity and the high quality habitat that it provides to aquatic wildlife. Horseshoe Cove is located within designated critical habitat area for the winter run of the Sacramento River chinook salmon. This water is part of the Dungeness crab migratory corridor between the Farallones 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. In addition, the ridge tops of Fort Baker are one of the last remaining habitats for the endangered Mission Blue butterfly.

Looking Forward

Fort Baker is very different today from the time when the U.S. Army occupied the site. The *U.S. Coast Guard* moved to Horseshoe Cove in 1991 from its previous location near Fort Point in San Francisco. The *Travis Air Force Base Sailing Center* continues the tradition established by the army’s Presidio Yacht Club, providing sailing instructions, moorings and a club house. The *Bay Area Discovery Museum*, a renowned children’s learning facility, now occupies historic Satterlee Road. *Cavallo Point—the Lodge at the Golden Gate* occupies contemporary and rehabilitated his-



Harbor seals are among the many animals that frequent Horseshoe Cove. (Photo courtesy of the Marin Mammal Center)

toric buildings in one of the most recent major lodges built in a national park. The *Institute at the Golden Gate* hosts and convenes programs dedicated to solutions to global environmental challenges and the protection of parks and open spaces.

Future plans for Horseshoe Cove call for a return to a more natural shoreline, with improved access to the recreational resources of the waterfront and greater opportunities for visitors to Fort Baker to enjoy this unique place on the bay.

This marks the end the walking tour. Feel free to walk up to the Cavallo Point Lodge and if you are interested, take the *Fort Baker Parade Ground Walk; Innovations in Army Post Life*. Thank you for visiting Horseshoe Cove and please return again to enjoy this historic bay.