

LATEST HEADLINES

Gary Griggs, Our Ocean Backyard | Seacliff State Beach wall failures continue



Failure of timber bulkhead earlier this year. (Contributed)



By **GARY GRIGGS**

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Building any structure on the beach is asking for problems, and this is precisely what has happened repeatedly at Seacliff State Beach for nearly a century. The timber bulkhead that supports the parking and picnic area, the RV campground and restrooms, has been repeatedly built, destroyed and then rebuilt ever since the first wall was constructed in 1926.



Gary Griggs

After two earlier ill-fated walls had failed, a third timber bulkhead at Seacliff was completed in August 1940, consisting of horizontal 2 inch by 12 inch redwood planks or lagging nailed onto wooden pilings that were spaced about eight feet apart. Five months later, a severe storm hit the shoreline here again. Large logs were thrown over the timber wall and the beach was eroded back 75-80 feet, leaving remnants of the bulkhead well seaward of the new shoreline.

Much of the eastern and western ends of the older wall were destroyed. The newer August wall survived about five months until Jan. 8-13, 1941, less than six months after completion, when waves from the southwest eroded the beach to bedrock and destroyed half of the remaining timber bulkhead.

There are no records of new wall construction from 1941 to 1966, although the 1948 aerial photograph does show a timber wall along most of the length of Seacliff State Beach. In October 1950, the existing wall was overtopped by waves and the park road behind it damaged. Ten years later, in February 1960, 26 RV camping sites, a restroom and parking lots were damaged by southerly and westerly storms. Repeatedly, it has been waves from the west or southwest, which hit this part of the coast head on that have done the most damage.

Six years after the 1960 failures, two new sections of wooden wall with a total length of 1,700 feet were constructed both north and south of the pier. Another southerly gale in February 1976 sent waves and logs over the new timber bulkhead all the way to the base of the cliff destroying sections of the

In 1978, 2,700 feet of new wooden seawall was rebuilt for the fifth time. It was anticipated that this new structure would last 20 years, even though it was essentially the same design as the structures that had previously been damaged or destroyed. Less than two years later, in February 1980, a series of storms, again from the southwest, severely damaged the new wall, 950 feet were destroyed and 1,600 feet were damaged. The road and parking area for 324 cars were wrecked.

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Four years later, in November 1982, a new 2,700-foot-long timber bulkhead was completed along with repairs to the parking area at a total cost at the time of \$1.7 million (\$5,286,000 in 2022 dollars). This structure was exactly the same as the just-destroyed wall- timber pilings placed on eight-foot centers with 3"x12" timber lagging behind them to support the fill

Following this reconstruction, I testified on the past history of timber bulkhead destruction at Seacliff to a State Senate Subcommittee attempting to develop a state level policy on shoreline erosion and protection. Immediately following my testimony, State Sen. Henry Mello (from Watsonville) looked at me and responded, "If we don't stop the Pacific Ocean here, it will go all the way to Highway 1."

The director of State Parks and Recreation assured the subcommittee that "If the seawall at Seacliff fails again, my department will not thoughtlessly rebuild the structure. We will consider all alternatives, in light of recent trends and scientific findings. We will confer with experts in the field of sea cliff

In late January 1983, within two months of completion of the newest timber wall, the first of eight major storms (predominantly from the southwest) struck simultaneously with high tides, the same conditions experienced earlier this year. During the first storm, the wooden wall was overtopped with minor damage. Logs and debris littered the parking area and damaged a restroom. Subsequent storms in February and March inflicted heavy damage to the new wall and parking areas.

Rafts of large redwood logs were repeatedly driven by the large waves at high tide against and over the timber bulkhead, which broke through the asphalt, battered the lagging loose and allowed the fill behind the wall to wash out. Eventually the exposed lagging along 1,400 feet of the 2,700 feet of new wall was completely destroyed along with 55 pilings. Damage was estimated at \$740,000 (\$2.2 million in 2022 dollars), or half of the cost of the wall and improvements just completed four months earlier.

In the subsequent months, the State Department of Parks and Recreation, under a new director, requested funds to rebuild the timber wall at Seacliff State Beach for the seventh time with only minor design modifications. The case for reconstruction was based on high level of usage of the beach area recreational vehicle "camping" sites and parking areas. The State Public Works Board approved the request and reconstruction took place. With the 1984 rebuild, the timber bulkhead had been rebuilt seven times in 60 years, or roughly every 8.5 years on average.

It appears that the ineffectiveness of a wood piling and timber bulkhead at this location has not been recognized by the State of California. With the exception of the initial 1926 concrete wall and some minor modifications in the 1984 wall, each structure has been rebuilt in essentially the same manner.

Although a projected lifespan of 20 years has regularly been used for economic calculations, none of the walls have survived this long. The lifetime of any individual wall here is primarily a function of how soon after reconstruction the next period of large storm waves coincident with very high tides occurs.

The timber bulkheads constructed at Seacliff have had some significant deficiencies which have never been remedied: 1) the timber lagging has been poorly attached to the pilings; 2) the timber and pilings have been repeatedly

Immediately downcoast along Beach Drive in Rio Del Mar, a new seawall was built at about the same time as the last Seacliff wall. Steel H piles and six-inch-thick timber lagging between the H flanges was used so that the timbers cannot be moved in either direction. The wall also incorporates a rigid concrete overhanging cap. This structure withstood the 1983 and 2023 storms without significant damage and was built at the same cost as the Seacliff timber bulkhead.

In the first week of January of this year, the timber wall at Seacliff was again hit by very large waves from the southwest arriving at high tides. Most of the newest timber bulkhead was again destroyed. Now is the time to ask if beach level parking, whether cars or RVs, is essential or cost effective and worth the cost of the 8th reconstruction? In the long run, there is nothing we can do to hold back the Pacific Ocean and this may be the time to step back from the edge.

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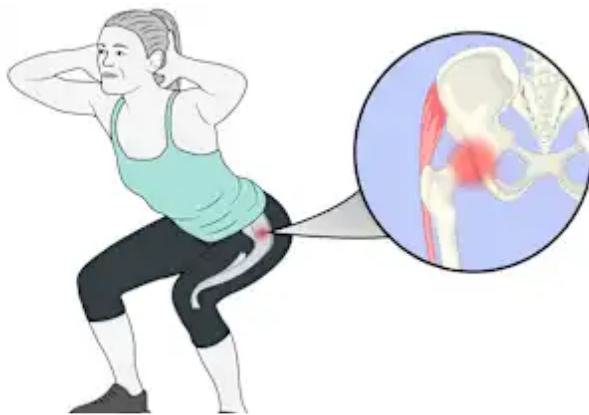
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