

A Wave And a Road

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I was a San Mateo County resident in 1942. All told, I lived here four days. At the time my dad was a catskiner, meaning he drove the big earthmoving Caterpillar and Euclid tractors on road construction. His job required a lot of moving around, in more ways than one. Construction, I learned early, was a job that kept families on the move, as the breadwinner finished each job and traveled to the next.

It turned out Half Moon Bay Airport gave him only a few days work. We were there only long enough to learn about the coastal flea population, to be thoroughly impressed by the number of Portuguese names in the community, and to go to school for one day before we moved on.

If I had been planning for the future, I would have noted the roadway on Highway One south of Princeton. Little did I know the road would not be there fifty years later. Major portions of the road we traveled have since been destroyed by wave action. Wave patterns changed by the Pillar Point breakwater ate up many acres of prime oceanfront real estate. For some years, until the heavy storms of the last decade, portions of the old road were visible. They formed islands that looked for all the world like miniature beached aircraft carriers, their asphalted tops protecting them slightly from the erosion all around.

Erosion is predictable and it is preventable. It would be interesting to go back into the archives of Pillar Point harbor and find out who is responsible for building the breakwater and thus eroding the roadbed.

Francis Shepard, an oceanographer from UC San Diego, says: "In 1959 and 1960, a jetty was constructed from Pillar Point, and another breakwater was extended from the shore at El Granada... to develop a small-boat harbor. This was followed by serious erosion of the coastal road and a bridge was destroyed. Waves from the west strike the shore directly south of the breakwater, and eroded sand is shifted southeastward, but now there is no replenishment because of the jetty and the breakwater. Waves reflected from the jetty add to the erosion."

The waves you watch breaking against the fishing pier or in front of Taco Bell on Pacifica State Beach were "powered" by storms in the gulf of Alaska or winds whirling out of the highlands of Antarctica. The swells which beat against our shore as breakers are energized by the same winds which cause waves to break on Rapa Nui (Easter Island) and Bora Bora.

Though their fetch is thousands of miles, what man does in the ocean the last few hundred feet before the waves break against the shore may drastically change their effect.

We haven't learned much in fifty years. We must learn to avoid blocking sources of sand which continually replenish our beaches. We must avoid changing wave patterns in the subtle but devastating ways that cost us so much at Princeton harbor. Pacifica's miles of coastline are a precious resource. They can be preserved, damaged, or destroyed. It's up to all of us.