

Our Ocean Backyard — *Santa Cruz Sentinel* columns by Gary Griggs, Director, Institute of Marine Sciences, UC Santa Cruz.

#56 June 5, 2010

Hazards of living on the edge



The cliffs along Depot Hill are eroding at about a foot each year on average and, Grand Avenue, the former cliff top street, is now almost completely gone.

Many of you may have noticed that there are always many more For Sale signs along our coastline in late spring and summer than during the winter months. Ocean front homes just look a lot more appealing to potential buyers in June, July and August than in December and January. Some very creative words are often used to describe those shoreline homes in the real estate ads: “On the Sand” and “Steps to the Beach”, being good examples. Generally speaking, being “on the sand” and only “steps to the beach” is probably not the best place to invest your life savings. There are lots of exciting stories and photographs of serious storm damage and even destruction for homes built on the sand in California.

There are also some enticing streets dreamed up by coastal developers in the past. Malibu has Sea Level Drive, which raises an interesting question. In the Del Monte Beach area of Monterey, you can buy a home on Spray Avenue, Surf Way, or Tide

Avenue. There were also some older parcels and streets in that development that are now completely underwater as the shoreline continues to retreat at a foot or two feet each year.

Grand Avenue in Capitola used to extend along almost the entire length of Depot Hill. In the early 1900's there was also a double row of trees and a sidewalk between them along the ocean side of the street, which was known at the time as Lover's Lane. Today the trees and Grand Avenue are gone, along with one house, six apartment buildings, and four parcels, all casualties of the progressive erosion of the coastline over the past century. Measurements from old parcel maps and aerial photographs chart a retreat rate averaging about a foot per year. Many proposals to protect the 70-foot high cliffs of Depot Hill from further erosion have come and gone over the past 40 years but none have ever coming to fruition. This is a tough place to hold the line. It takes a lot of property owners to agree on an approach, and then a lot of money. More important, any protection project requires approvals from the city of Capitola, and more challenging, the California Coastal Commission.

Opal Cliffs is another difficult area for local homeowners whose backyards continue to get smaller year after year. From 41st Avenue eastward nearly to the overlook above the Capitola pier, dozens of residents living along Opal Cliffs Drive no doubt look forward to the calmer summer weather and a respite from winter wave attack. The views are great but there is the constant threat of the next slab of Purisima bedrock giving way and falling to the shoreline below.

West Cliff Drive is a different story. Much of the underlying bedrock is more resistant Santa Cruz Mudstone, but more importantly, with a single exception, the homes are all on the inland side of the street. Although much of this coastline has now been armored with riprap or large rocks, when cliff failure does take place, it's the pathway and West Cliff Drive that are threatened, rather than someone's backyard and home.