

Living in Santa Cruz County

It can be dangerous, but the people love it

By BOB SMITH
STAFF WRITER

Rain, floods, landslides, earthquakes — all in all, Santa Cruz County is not a very safe place to live.

Even so, it is one of the most desirable places to live in California. And residents pay a stiff price for the privilege, both economically and in terms of the physical hazards.

UC-Santa Cruz earth sciences instructor Gary Griggs gave a refresher course on disasters last night to members of the Aptos Neighbors Association, reviewing the sometimes forgotten lessons of the recent past: the floods of 1982, 1983 and 1986, and the earthquake of 1989.

To a geologist, and even to a

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—Geologist Gary Griggs

layman, Santa Cruz County is rife with the need for warnings that say, "Don't build here."

But the lure of the beaches, the serenity of a creekside hideaway and the peacefulness of the redwood forests prompt many people to buy the homes built in some of the most geologically hazardous areas of the county — the beaches; the sandy, crumbling bluffs; the flood plains of Aptos and Soquel creeks; and the Santa Cruz

Mountains.

Griggs has been studying Santa Cruz County geology for the last 22 years. His conclusion: "There are more geologic hazards per square mile in Santa Cruz County than in any other county in California."

Griggs used slides taken over the last two decades to make his point that people have short disaster memories.

And he doesn't believe that society should pay the bill for a few people's shortsightedness.

Referring to the millions of dollars spent in local, state, federal and insurance dollars to rebuild and protect homes built in unsafe locations, Griggs flatly told members of the Aptos Neighbors Association, "I don't think we should be in the business of subsidizing people who live in hazardous locations."

Ocean-view lots are popular among land developers because of the prices an otherwise ordinary home can command. Aptos has a lot of them, many of them built on bluffs that are really just old sand dunes, Griggs said.

He gave an example: Build a
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rad along the bottom of the bluffs, as happened in Place de Mer; wet them with a lot of water as occurred in 1982, 1983 and 1986; or shake vigorously as on Oct. 17, 1989, and the earth begins to move.

Sometimes, Griggs said, it leaves the homes on top of the bluffs undercut, hanging over thin air. Sometimes, a road or home at the bottom of the slope is buried by tons of earth.

Sometimes, both happen. And in many cases, homes are repaired

or rebuilt on the same sites — waiting for the next disaster to strike. That happened, Griggs said, on Beach Drive in Aptos. A falling cliff wiped out a home. It was replaced by two new homes.

The beach homes along Seascape's Via Gaviota are another example.

"Between 1940 and 1978, California had a period of below-average rainfall and seas — a period of gentle climate and people built on the beaches because it looked safe," Griggs said.

Beaches are created because ocean waves wash over the land, Griggs said.

The political pressures of the late 1960s and early 1970s allowed a developer to build expensive homes on the beach at Via Gaviota. Griggs said the ocean storms of the early 1980s proved the folly of that decision. The rip-rap barriers placed in front of the homes proved to be no barrier to the ocean — only a ramp for the gigantic waves to race over the seawall and into the front rooms of the houses, damaging all of them and destroying some.

That didn't deter the residents there. They repaired their homes and built a new seawall, and at \$3,000 a running foot, the most expensive such wall in California.

The ocean wiped out homes along Beach Drive, at Pot Belly and Las Olas beaches, and destroyed the sixth and seventh seawalls built in the last half-century at Seacliff State Beach.

The seventh wall was completed in time for the January 1982 storms to batter it into kindling — a \$1.5 million loss. A new wall has been built to shelter the 26 recreational vehicle camping spots along the beach at Seacliff.

Griggs questions that decision.

"We don't need a seawall to enjoy the beach," he said.

He pointed to Aptos Creek as another example of man's short disaster memory. In 1955, homes along the creek were destroyed by floods. Many were rebuilt. Other new homes were built on both sides of the man-straightened channel. In 1982, the creek again went wild and the homes were again destroyed, undercut when the creek left its usual channel

and chewed into the foundations of the homes.

Those homes have been rebuilt again.

The 1982 flood on Aptos Creek is now considered to be a 40- or 50-year flood and the high-water marks were well above the levels predicted for a 100-year flood.

"It is an area that will flood again — it is only a matter of time," Griggs said. "I have some real concerns about building in these areas."

In the mountains, there are a different set of dangers for the unwary resident, he said. Landslides and mudslides were triggered by the torrential rains of 1982, 1983 and 1986.

People were killed in the Love Creek slide. Dozens of homes in the Aptos area were heavily damaged or destroyed. One woman was killed in her Cathedral Drive home when a redwood tree, its roots loosened by the rain, toppled into her home.

But the greatest hazards, Griggs said, are from earthquakes. In 15 seconds, he said, the 1989 earthquake shifted Santa Cruz County 6.2 feet north and 4.2 feet higher.

And it surprised many engineers and geologists, Griggs said.

But Griggs did have some comforting words for his Aptos audience: "Aptos is a very safe place because of the bedrock and how you build."

Geologists and engineers were surprised by the damage to new homes in the mountains — in locations that had been thought to be "safe" places in an earthquake he said.

"The Uniform Building Code did not account for the kind of forces we saw," Griggs said, flipping through slide after slide of destroyed homes.

The cracks that opened up in the hillsides are still an issue. Griggs and others believe that the cracks "represent large reactivated landslides. It will be a slow process but the long-term conclusion is that these cracks will continue to grow."

That could be very bad news for the hundreds of homeowners — such as the Villa del Monte subdivision off Summit Road — who

now live atop those landslides.

Still, Californians have learned a few things over the decades about living with earthquakes. Comparing the 1989 quake to similar quakes in other parts of the world where hundreds and thousands die in collapsed buildings, Griggs told his audience: "No one died in the Loma Prieta quake in a single-family, wood-framed building. We have learned to build pretty safely here, although there is room for improvement."

The future? Santa Cruz County has experienced the worse in terms of earthquakes. Even if there is a major quake in the San Francisco Bay Area, its effect here wouldn't be any greater than the 1989 quake and probably much, much less.