

# Hayward Fault's double dose of quakes no surprise

Will Kane, San Francisco Chronicle, 3-6-12

The two earthquakes that struck just seconds apart in El Cerrito early Monday were centered on an area of the Hayward Fault that has seen a cluster of temblors over the last 40 years, seismologists said.

A 4.0-magnitude quake struck near the Mira Vista Country Club on Arlington Boulevard in the El Cerrito hills at 5:33 a.m., eight seconds after a 3.5 quake hit roughly a quarter-mile to the northeast. Each quake had a depth of about 5 1/2 miles. The quakes jolted residents out of bed and caused isolated minor damage, including to Christine Cosgrove's chimney.

Cosgrove, who lives on Prince Street near Claremont Avenue in southeast Berkeley, said that "a big chunk of our chimney fell down. For us, this was the strongest earthquake we've felt in 22 years in the house. Other items fell off window sills and broke." The larger quake was felt as far away as Santa Cruz, Santa Rosa and Tracy, said Brad Aagaard, a research geophysicist with the U.S. Geological Survey. The first quake was a foreshock and probably magnified the effect of the second, larger earthquake, Aagaard said.

Since 1972, there have been 18 quakes with a magnitude of 2.8 or greater within 1.8 miles of the El Cerrito country club, said Robert Uhrhammer, a seismologist at UC Berkeley's Seismological Laboratory. The Hayward Fault is known for having concentrated clusters of seismic activity, he said. Some sections of the fault see frequent quakes, while others haven't had a tremor in decades. "The El Cerrito cluster is at a bend in the fault," Uhrhammer said. "It is a combination of the rock types and it is not straight. "If it was nice and straight, it would have behaved normally," he said.

None of the 18 quakes since 1972 has been greater than 4.0, Uhrhammer said. Researchers don't know whether the El Cerrito portion is more likely than quieter sections to produce the 7.5-magnitude quake that seismologists believe the Hayward Fault is capable of.

Susan Torres, 72, was sleeping when Monday's quakes hit. She and her family live on Arlington Boulevard, and the golf course is "in their backyard," she said.

"It woke us up," she said. "It felt like thunder going through the house. I knew it was an earthquake immediately. I was thinking that the house was going to come down." Albany, El Cerrito and Richmond police dispatchers received no reports of injuries or major damage. In Berkeley, a water pipe at an apartment complex broke, causing minor damage, a dispatcher said.