

California Earthquake Warning: Scientists Say Dangerous Fault Is Overdue for Major Quake

Scientists are warning that one of California's most dangerous fault lines is overdue for a devastating earthquake that could shake the San Francisco Bay Area far harder than previously expected.

Researchers from the Lawrence Livermore National Laboratory said the Hayward Fault, a 74-mile fracture running through the Bay Area, poses a major threat to nearly eight million residents living in the region. The warning comes after new 3D simulations revealed future shaking could be up to 50 percent stronger in several heavily populated communities.

"The fault is overdue for an earthquake that could cause extensive damage to such a dense population zone," the research team said in a statement.

The Hayward Fault is part of the larger San Andreas Fault system and is capable of producing earthquakes stronger than magnitude 7.0. The last major rupture along the Hayward occurred in 1868. Scientists estimate the fault typically ruptures every 95 to 183 years.



Order Jonathan Cahn's New Book, "The Altar of Pergamon" on !

The new study, published in Seismological Research Letters, simulated 50 realistic earthquake scenarios using updated underground geological maps of the Bay Area. Researchers examined how seismic waves would move through California's underground basins, hills and shoreline mud deposits.

The findings showed areas including Oakland, Berkeley, Hayward and Livermore could experience significantly stronger and longer shaking than older earthquake models predicted.

Researchers warned that when the Hayward Fault ruptures, seismic energy often focuses in one direction “like a lens,” intensifying the shaking and increasing the danger for tall or flexible buildings.

Deep geological basins including the Livermore Basin, the East Bay Hills and shoreline “Bay Mud” regions were identified as especially vulnerable because they can trap and amplify seismic waves.

In a Daily Mail report, Arben Pitarka said, “With this new database, not only can we provide better estimates of the expected ground motion from this type of earthquake, but we can also locate areas that are susceptible to very strong shaking in the San Francisco Bay Area.”

According to the United States Geological Survey, there is a 95 percent probability that a magnitude 6.7 or larger earthquake will strike somewhere in the Bay Area by 2043. Researchers said the Hayward Fault is the most likely source of that future disaster, with a one-in-three chance of rupturing by that same year.

The LLNL team also plans to conduct similar simulations for the San Andreas Fault, which caused the catastrophic 1906 San Francisco earthquake that killed more than 3,000 people.

James Lasher, a seasoned writer and editor at Charisma Media, combines faith and storytelling with a journalism background from Otterbein University and ministry experience in Guatemala and at the LA Dream Center. A Marine Corps and Air Force veteran, he is the author of *The Revelation of Jesus: A Common Man's Commentary* and a contributor to Charisma magazine. For interviews and media inquiries, please contact media@.