



Seismological Society of America

201 Plaza Professional Building
El Cerrito, California 94530
(510) 524-5474 • Fax (510) 525-7204

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For more information, contact:

Paul Laustsen, U.S. Geological Survey

Office: 650.329.4046, Mobile: 650.454.7264, plaustsen@usgs.gov

Nan Broadbent, Seismological Society of America

Mobile: 408-431-9885, press@seismosoc.org

New Liquefaction Hazard Maps of Santa Clara Valley February issue of the *Bulletin of the Seismological Society of America*

El Cerrito, CA -- New hazard maps for communities from San Jose to Palo Alto in Northern California delineate the probability of earthquake-induced liquefaction, based on three scenarios: a magnitude 7.8 on the San Andreas Fault comparable to the 1906 event, a magnitude 6.7 on the Hayward Fault comparable to the 1868 event, and a magnitude 6.9 on the Calaveras Calaveras Fault. The probability of liquefaction is highest at approximately 33 to 37 percent in some areas along major creeks for the San Andreas Fault scenario when the water table is relatively shallow, according to the report published by the February issue of the *Bulletin of the Seismological Society of America*.

Until now, scientists have offered only qualitative maps of the liquefaction hazard in the Santa Clara Valley. Liquefaction is a physical process that takes place during some earthquakes, causing loose soil to act like water rather than a solid. The liquefied sand or soil may flow and the ground may move and crack, causing damage to surface structures and underground utilities, as it did in the valley during both the 1868 and 1906 earthquakes.

These probabilistic maps detail the degree of hazard within broader hazard zones and thereby provide a perspective on the actual risk to the user. The high resolution maps can be found at <http://earthquake.usgs.gov/regional/nca/liquefaction/>.

BSSA Volume 99:1, "Scenario Liquefaction Hazard Maps of Santa Clara Valley, Northern California," by Thomas L. Holzer, Thomas E. Noce and Michael J. Bennett of the U.S. Geological Survey in Menlo Park, CA.