



**CALIFORNIA DEPARTMENT OF CONSERVATION  
CALIFORNIA GEOLOGICAL SURVEY  
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**SPECIAL REPORT RELEASE**

**SPECIAL REPORT 203**

**The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)**

**By the Working Group on California Earthquake Probabilities (WGCEP) and  
the USGS National Seismic Hazard Mapping Program (NSHMP)**

The 2007 Working Group on California Earthquake Probabilities (WGCEP) has developed a statewide earthquake-rupture forecast that uses "best available science". This model, called the Uniform California Earthquake Rupture Forecast (UCERF), is the product of a collaborative project of the U.S. Geological Survey (USGS), the California Geological Survey (CGS) and the Southern California Earthquake Center (SCEC) with the assistance of the California Earthquake Authority (CEA). Development of this model was tightly coordinated with the USGS National Seismic Hazard Mapping Program (NSHMP). For this project, the WGCEP has assembled and analyzed the latest data on the rates of earthquake occurrence from historic and instrumental data, paleoseismology, slip rates on faults, and deformation rates from GPS and long-term plate-tectonic models. The resulting model achieves an unprecedented degree of agreement with all the available data and can be used to calculate future earthquake hazards. The model is being used by NSHMP to calculate the long-term (time-independent) earthquake shaking hazards used in the development of building codes. It also is being used to calculate the time-dependant hazard (which depends on how recently earthquakes have occurred on specific faults) that is used to calculate earthquake probabilities for the next 30 years. CEA will use this time-dependant model to analyze potential earthquake losses and set earthquake insurance premiums. The report of the WGCEP, detailing the development of the UCERF and providing background data and analyses, is published as CGS Special Report 203 and USGS Open File Report 2007-1437, and as SCEC Contribution 1138.

The California Geological Survey has printed the report, and included the appendices and supplementary materials on a CD.

**Special Report 203 is available as a free download from the California Geological Survey Website or as a hard copy for:**

Price.....\$30.00  
Shipping and handling.....\$ 8.00

*(Check, money order or credit card number must be included with order)*

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