

ESP FOCUS

Understand the Threat



WHY?

Earthquakes occur every day in California. They can't be predicted or prevented. But their physical and emotional impacts can be reduced by better individual preparedness.

The San Andreas Fault

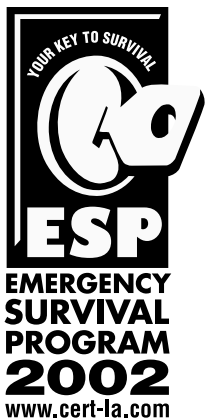
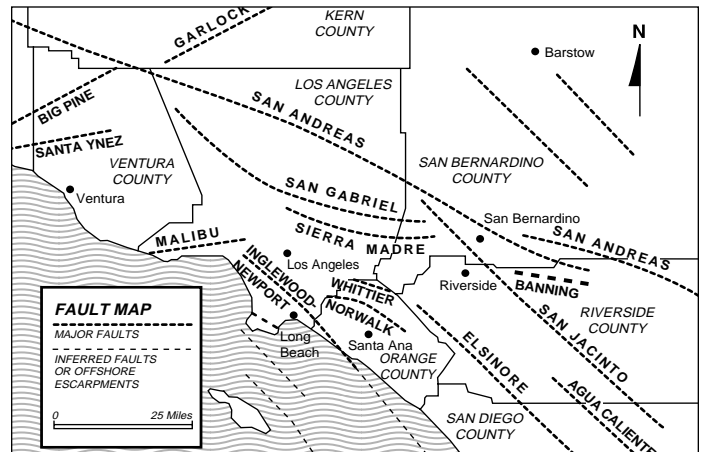
The San Andreas Fault is the longest fault in California. Scientists believe it can cause the largest earthquakes. It's been almost 150 years since the last Southern California earthquake on the San Andreas in 1857. Scientists believe a major earthquake on the fault is likely to occur in the next few decades.

Because Southern California was less populated when the 1857 earthquake occurred, it caused only one death. Today millions of people live near the San Andreas, so a similar earthquake today could cause several hundred deaths.

Other Faults

The San Andreas isn't the only fault that threatens Southern California. Seismologists estimate that there are more than 200 faults that can produce damaging earthquakes in the region.

The map below shows some of the major faults in Southern California that can create magnitude 6 or larger earthquakes.



TOYOTA

Flyer funded in part by a contribution from:

www.toyota.com

JANUARY

Possible Impacts

The 1994 Northridge and 1991 Sierra Madre earthquakes showed that earthquakes in the magnitude 6 range can have serious impacts.

Overall Impacts

A major earthquake could have significant impacts on communities, businesses and schools.

Impact on Communities

Earthquakes affect more than infrastructure. The table below uses information from computer models to show the potential impacts on Southern California residents and housing in hypothetical earthquakes at 2 p.m. on the Elsinore, Rose Canyon, Santa Ynez and Sierra Madre Faults.

Impact on Housing

| Earthquake Impacts | Elsinore Fault | Rose Canyon Fault | Santa Ynez Fault | Sierra Madre Fault |
|---------------------|----------------|-------------------|------------------|--------------------|
| Magnitude | 7.1 | 6.9 | 7.0 | 7.0 |
| Deaths | 88 | 111 | 27 | 300 |
| Injuries | 6,273 | 6,413 | 1,973 | 18,449 |
| Not Damaged | 3,307,879 | 3,529,836 | 2,147,115 | 1,567,531 |
| Slightly Damaged | 419,700 | 260,248 | 174,122 | 676,062 |
| Moderately Damaged | 160,941 | 124,443 | 61,210 | 321,654 |
| Extensively Damaged | 50,781 | 30,298 | 13,610 | 79,562 |
| Destroyed | 14,493 | 7,949 | 2,992 | 20,829 |

Impact on Businesses

Businesses are not immune. Past earthquake impacts have included damage to commercial structures, losses of inventory, and business disruption. The table below lists modeling projections of impacts on businesses from the hypothetical earthquakes cited earlier.

Impact on Businesses

| Earthquake Impacts | Elsinore Fault | Rose Canyon Fault | Santa Ynez Fault | Sierra Madre Fault |
|-----------------------|----------------|-------------------|------------------|--------------------|
| Damaged | 14,516 | 9,193 | 5,427 | 35,791 |
| Destroyed | 397 | 427 | 83 | 1,103 |
| Structural Damage | \$929m | \$709.8m | \$328.1m | \$2.56b |
| Nonstructural Damage | \$1.93b | \$1.85b | \$845.5m | \$6.44b |
| Content Losses | \$1.05b | \$998.7m | \$498.9m | \$3.72b |
| Inventory Losses | \$64.9m | \$45.1m | \$24.7m | \$209.4m |
| Business Interruption | \$2.49b | \$2.5b | \$945.7m | \$7.36b |
| Total Losses | \$6.47b | \$6.1b | \$2.64b | \$20.28b |

m - million b - billion

Impact on Schools

California school buildings have become among the safest structures in the State since the adoption of rigid design and construction standards for public and private schools after the 1933 Long Beach earthquake. As the modeling projections in the accompanying table indicate, many buildings will sustain at least moderate damage. Most, however, will be at least partially functional on the day of the earthquake.

Impact on Educational Institutions

| Earthquake Impacts | Elsinore Fault | Rose Canyon Fault | Santa Ynez Fault | Sierra Madre Fault |
|---------------------|----------------|-------------------|------------------|--------------------|
| Not Damaged | 4,225 | 4,297 | 2,971 | 2,025 |
| Slightly Damaged | 143 | 84 | 45 | 337 |
| Moderately Damaged | 82 | 95 | 29 | 335 |
| Extensively Damaged | 20 | 24 | 5 | 100 |
| Destroyed | 7 | 4 | 0 | 22 |



This action sheet is produced as part of the Emergency Survival Program (ESP). ESP is an awareness campaign designed to increase emergency preparedness at home, in the community, at work and at school. ESP was developed by the County of Los Angeles. The California Governor's Office of Emergency Services (OES) and representatives from Southern California cities and counties assist in the development of campaign materials and in coordination of the campaign.