

AMENDED IN SENATE APRIL 2, 2013

**SENATE BILL**

**No. 135**

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**Introduced by Senator Padilla**

*(Coauthors: Senators Hill, Lieu, and Liu)*

*(Coauthors: Assembly Members Blumenfield, Gordon, Mullin, and Skinner)*

January 28, 2013

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An act to add Section 8587.8 to the Government Code, relating to earthquake safety.

LEGISLATIVE COUNSEL'S DIGEST

SB 135, as amended, Padilla. Earthquake early warning system.

There is in state government, pursuant to the Governor's Reorganization Plan No. 2, operative July 1, 2013, the Office of Emergency Services. Existing law requires the office to develop and distribute an educational pamphlet for use by kindergarten, any of grades 1 to 12, inclusive, and community college personnel to identify and mitigate the risks posed by nonstructural earthquake hazards.

This bill would require the office, in collaboration with various entities, including the United States Geological Survey, to develop a comprehensive statewide earthquake early warning system in California.

Vote: majority. Appropriation: no. Fiscal committee: yes. State-mandated local program: no.

*The people of the State of California do enact as follows:*

- 1 SECTION 1. The Legislature finds and declares the following:
- 2 (a) According to the United States Geological Survey, California
- 3 is one of the most seismically active states, second only to Alaska.

1 (b) California has experienced dozens of disastrous earthquakes,  
2 which have caused loss of life, injury, and economic loss. Some  
3 of the most significant earthquakes in California's history include:

4 (1) The 1906 San Francisco earthquake, which, at a magnitude  
5 of 7.8, resulted in an estimated 3,000 deaths and over \$500 million  
6 in property losses.

7 (2) The 1971 San Fernando earthquake, which, at a magnitude  
8 of 6.7, resulted in at least 65 deaths and caused property damage  
9 of over \$500 million.

10 (3) The 1989 Loma Prieta earthquake, which, at a magnitude  
11 of 6.9, ~~rocked the bay area~~ and caused 63 fatalities and over \$6  
12 billion in property damage.

13 (4) The 1994 Northridge earthquake, which, at a magnitude of  
14 6.7, claimed the lives of 60 people and caused estimated property  
15 damage of between \$13 and \$32 billion.

16 (c) About 90 percent of the world's earthquakes and over 80  
17 percent of the world's largest earthquakes occur along the  
18 Circum-Pacific Belt, also known as the Pacific Ring of Fire. The  
19 Pacific Ring of Fire includes the very active San Andreas Fault  
20 Zone in California.

21 (d) The Uniform California Earthquake Rupture Forecast  
22 (UCERF) released in 2008 predicted a 99.7 percent likelihood of  
23 a magnitude 6.7 or larger earthquake in California in the next 30  
24 years.

25 (e) A 2013 study published by the Caltech and the Japan Agency  
26 for Marine-Earth Science and Technology discovered that a  
27 statewide California earthquake involving both the Los Angeles  
28 and San Francisco metropolitan areas may be possible.

29 (f) Japan, Taiwan, Mexico, Turkey, Romania, Italy, and China  
30 either have or are working on earthquake early warning systems  
31 that are capable of saving lives and helping to mitigate loss.

32 (g) The Office of Emergency Services, Caltech, California  
33 Geological Survey, University of California at Berkeley, United  
34 States Geological Survey, and others have been conducting  
35 earthquake early warning research and development in California.  
36 They operate the California Integrated Seismic Network, which  
37 has a demonstration earthquake early warning capability.

38 (h) By building upon the California Integrated Seismic Network  
39 and processing data from an array of sensors throughout the state,  
40 a fully developed earthquake early warning system would

1 effectively detect some strength and progression of earthquakes  
2 and alert the public within seconds, sometimes up to 60 seconds,  
3 before potentially damaging ground shaking is felt.

4 (i) An earthquake early warning system should disseminate  
5 earthquake information in support of public safety, emergency  
6 response, and loss mitigation.

7 SEC. 2. Section 8587.8 is added to the Government Code, to  
8 read:

9 8587.8. The Office of Emergency Services, in collaboration  
10 with the California Institute of Technology (Caltech), the California  
11 Geological Survey, the University of California Berkeley, the  
12 United States Geological Survey, and others, shall develop a  
13 comprehensive statewide earthquake early warning system in  
14 California.