

AMENDED IN ASSEMBLY SEPTEMBER 3, 2013

AMENDED IN ASSEMBLY AUGUST 14, 2013

AMENDED IN SENATE MAY 24, 2013

AMENDED IN SENATE APRIL 2, 2013

SENATE BILL

No. 135

Introduced by Senator Padilla

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

(Coauthors: Assembly Members Bloom, Blumenfield, *Cooley*, Gordon,
Jones-Sawyer, Mullin, and Skinner)

January 28, 2013

An act to add and repeal Section 8587.8 of 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 *through a public-private partnership* and would require the system to include certain features, including the installation of field sensors. *The bill would require the office to develop an approval mechanism, as provided, to review compliance with earthquake early warning*

standards as they are developed. The bill would require the office to identify funding sources and would prohibit the office from identifying as a funding source, or expending, any state funds to establish the system. The bill would make these provisions contingent upon the office identifying funding sources for the system, as provided. If no funding sources are identified by January 1, 2016, the bill would repeal these provisions.

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.
 4 (b) California has experienced dozens of disastrous earthquakes,
 5 which have caused loss of life, injury, and economic loss. Some
 6 of the most significant earthquakes in California's history include:
 7 (1) The 1906 San Francisco earthquake, which, at a magnitude
 8 of 7.8, resulted in an estimated 3,000 deaths and over \$500 million
 9 in property losses.
 10 (2) The 1971 San Fernando earthquake, which, at a magnitude
 11 of 6.7, resulted in at least 65 deaths and caused property damage
 12 of over \$500 million.
 13 (3) The 1989 Loma Prieta earthquake, which, at a magnitude
 14 of 6.9, caused 63 fatalities and over \$6 billion in property damage.
 15 (4) The 1994 Northridge earthquake, which, at a magnitude of
 16 6.7, claimed the lives of 60 people and caused estimated property
 17 damage of between \$13 and \$32 billion.
 18 (c) About 90 percent of the world's earthquakes and over 80
 19 percent of the world's largest earthquakes occur along the
 20 Circum-Pacific Belt, also known as the Pacific Ring of Fire. The
 21 Pacific Ring of Fire includes the very active San Andreas Fault
 22 Zone in California.
 23 (d) The Uniform California Earthquake Rupture Forecast
 24 (UCERF) released in 2008 predicted a 99.7 percent likelihood of
 25 a magnitude 6.7 or larger earthquake in California in the next 30
 26 years.
 27 (e) A 2013 study published by the ~~Caltech~~ *California Institute*
 28 *of Technology (Caltech)* and the Japan Agency for Marine-Earth

1 Science and Technology discovered that a statewide California
2 earthquake involving both the Los Angeles and San Francisco
3 metropolitan areas may be possible.

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

7 (g) The Office of Emergency Services, Caltech, California
8 Geological Survey, University of California, United States
9 Geological Survey, and others have been conducting earthquake
10 early warning research and development in California. They operate
11 the California Integrated Seismic Network, which has a
12 demonstration earthquake early warning capability.

13 (h) By building upon the California Integrated Seismic Network
14 and processing data from an array of sensors throughout the state,
15 a fully developed earthquake early warning system would
16 effectively detect some strength and progression of earthquakes
17 and alert the public within seconds, sometimes up to 60 seconds,
18 before potentially damaging ground shaking is felt.

19 (i) An earthquake early warning system should disseminate
20 earthquake information in support of public safety, emergency
21 response, and loss mitigation.

22 SEC. 2. Section 8587.8 is added to the Government Code, to
23 read:

24 8587.8. (a) The Office of Emergency Services, in collaboration
25 with the California Institute of Technology (Caltech), the California
26 Geological Survey, the University of California, the United States
27 Geological Survey, the Alfred E. Alquist Seismic Safety
28 Commission, and ~~others~~ *other stakeholders*, shall develop a
29 comprehensive statewide earthquake early warning system in
30 California *through a public-private partnership*, which shall
31 include, but not be limited to, the following features:

32 (1) Installation of field sensors.

33 (2) Improvement of field telemetry.

34 (3) Construction and testing of central processing and
35 notification centers.

36 (4) Establishment of warning notification distribution paths to
37 the public.

38 (5) Integration of earthquake early warning education with
39 general earthquake preparedness efforts.

1 (b) In consultation with stakeholders, the Office of Emergency
2 Services shall develop an approval mechanism to review
3 compliance with earthquake early warning standards as they are
4 developed. The development of the approval mechanism shall
5 include input from a broad representation of earthquake early
6 warning stakeholders. The approval mechanism shall accomplish
7 all of the following:

- 8 (1) Ensure the standards are appropriate.
- 9 (2) Determine the degree to which the standards apply to
- 10 providers and components of the system.
- 11 (3) Determine methods to ensure compliance with the standards.
- 12 (4) Determine requirements for participation in the system.

13 ~~(b)~~
14 (c) The Office of Emergency Services shall identify funding
15 for the system described in subdivision (a) through single or
16 multiple sources of revenue, ~~including, but not limited to, that~~
17 ~~shall be limited to~~ federal funds, funds from revenue bonds, local
18 funds, and private grants. The Office of Emergency Services shall
19 not identify as a funding source any state funds or expend state
20 funds for the purpose of establishing the system described in
21 subdivision (a).

22 ~~(e) Subdivision (a)~~
23 (d) Subdivisions (a) and (b) shall not become operative until
24 the Office of Emergency Services identifies funding pursuant to
25 subdivision-~~(b)~~ (c).

26 ~~(d)~~
27 (e) (1) If funding is not identified pursuant to subdivision-~~(b)~~
28 (c) by January 1, 2016, this section is repealed unless a later
29 enacted statute, that is enacted before January 1, 2016, deletes or
30 extends that date.

31 (2) The Office of Emergency Services shall file with the
32 Secretary of State its determination that funding was not identified
33 pursuant to subdivision-~~(b)~~ (c) by January 1, 2016.