

AMENDED IN ASSEMBLY SEPTEMBER 6, 2013

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. (a) The Legislature finds and declares *all of the*
2 following:
3 ~~(a)~~
4 (1) According to the United States Geological Survey, California
5 is one of the most seismically active states, second only to Alaska.
6 ~~(b)~~
7 (2) California has experienced dozens of disastrous earthquakes,
8 which have caused loss of life, injury, and economic loss. Some
9 of the most significant earthquakes in California's history include:
10 ~~(1)~~
11 (A) The 1906 San Francisco earthquake, which, at a magnitude
12 of 7.8, resulted in an estimated 3,000 deaths and over \$500 million
13 in property losses.
14 ~~(2)~~
15 (B) The 1971 San Fernando earthquake, which, at a magnitude
16 of 6.7, resulted in at least 65 deaths and caused property damage
17 of over \$500 million.
18 ~~(3)~~
19 (C) The 1989 Loma Prieta earthquake, which, at a magnitude
20 of 6.9, caused 63 fatalities and over \$6 billion in property damage.
21 ~~(4)~~
22 (D) The 1994 Northridge earthquake, which, at a magnitude of
23 6.7, claimed the lives of 60 people and caused estimated property
24 damage of between \$13 and \$32 billion.
25 ~~(e)~~

1 (3) About 90 percent of the world’s earthquakes and over 80
2 percent of the world’s largest earthquakes occur along the
3 Circum-Pacific Belt, also known as the Pacific Ring of Fire. The
4 Pacific Ring of Fire includes the very active San Andreas Fault
5 Zone in California.

6 ~~(d)~~

7 (4) The Uniform California Earthquake Rupture Forecast
8 (UCERF) released in 2008 predicted a 99.7 percent likelihood of
9 a magnitude 6.7 or larger earthquake in California in the next 30
10 years.

11 ~~(e)~~

12 (5) A 2013 study published by the California Institute of
13 Technology (Caltech) and the Japan Agency for Marine-Earth
14 Science and Technology discovered that a statewide California
15 earthquake involving both the Los Angeles and San Francisco
16 metropolitan areas may be possible.

17 ~~(f)~~

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

21 ~~(g)~~

22 (7) The Office of Emergency Services, Caltech, California
23 Geological Survey, University of California, United States
24 Geological Survey, and others have been conducting earthquake
25 early warning research and development in California. They operate
26 the California Integrated Seismic Network, which has a
27 demonstration earthquake early warning capability.

28 ~~(h)~~

29 (8) By building upon the California Integrated Seismic Network
30 and processing data from an array of sensors throughout the state,
31 a fully developed earthquake early warning system would
32 effectively detect some strength and progression of earthquakes
33 and alert the public within seconds, sometimes up to 60 seconds,
34 before potentially damaging ground shaking is felt.

35 ~~(i)~~

36 (9) An earthquake early warning system should disseminate
37 earthquake information in support of public safety, emergency
38 response, and loss mitigation.

39 (b) *It is the intent of the Legislature that the establishment of*
40 *an earthquake early warning system pursuant to this act shall not*

1 *result in any undue burden upon the General Fund and that, to*
2 *the maximum extent possible, the Office of Emergency Services*
3 *shall seek other sources for funding the implementation of Section*
4 *8587.8 of the Government Code.*

5 SEC. 2. Section 8587.8 is added to the Government Code, to
6 read:

7 8587.8. (a) The Office of Emergency Services, in collaboration
8 with the California Institute of Technology (Caltech), the California
9 Geological Survey, the University of California, the United States
10 Geological Survey, the Alfred E. Alquist Seismic Safety
11 Commission, and other stakeholders, shall develop a
12 comprehensive statewide earthquake early warning system in
13 California through a public-private partnership, which shall include,
14 but not be limited to, the following features:

15 (1) Installation of field sensors.

16 (2) Improvement of field telemetry.

17 (3) Construction and testing of central processing and
18 notification centers.

19 (4) Establishment of warning notification distribution paths to
20 the public.

21 (5) Integration of earthquake early warning education with
22 general earthquake preparedness efforts.

23 (b) In consultation with stakeholders, the Office of Emergency
24 Services shall develop an approval mechanism to review
25 compliance with earthquake early warning standards as they are
26 developed. The development of the approval mechanism shall
27 include input from a broad representation of earthquake early
28 warning stakeholders. The approval mechanism shall accomplish
29 all of the following:

30 (1) Ensure the standards are appropriate.

31 (2) Determine the degree to which the standards apply to
32 providers and components of the system.

33 (3) Determine methods to ensure compliance with the standards.

34 (4) Determine requirements for participation in the system.

35 (c) The Office of Emergency Services shall identify funding
36 for the system described in subdivision (a) through single or
37 multiple sources of revenue that shall be limited to federal funds,
38 funds from revenue bonds, local funds, and private grants. The
39 Office of Emergency Services shall not identify as a funding source

1 any state funds or expend state funds for the purpose of establishing
2 the system described in subdivision (a).

3 (d) Subdivisions (a) and (b) shall not become operative until
4 the Office of Emergency Services identifies funding pursuant to
5 subdivision (c).

6 (e) (1) If funding is not identified pursuant to subdivision (c)
7 by January 1, 2016, this section is repealed unless a later enacted
8 statute, that is enacted before January 1, 2016, deletes or extends
9 that date.

10 (2) The Office of Emergency Services shall file with the
11 Secretary of State its determination that funding was not identified
12 pursuant to subdivision (c) by January 1, 2016.

O