

116TH CONGRESS  
1ST SESSION

# H. R. 876

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IN THE SENATE OF THE UNITED STATES

FEBRUARY 7, 2019

Received; read twice and referred to the Committee on Homeland Security and  
Governmental Affairs

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## AN ACT

To direct the Administrator of the Federal Emergency Management Agency to carry out a plan for the purchase and installation of an earthquake early warning system for the Cascadia Subduction Zone, and for other purposes.

1       *Be it enacted by the Senate and House of Representa-*  
2       *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; DEFINITION.**

2 (a) **SHORT TITLE.**—This Act may be cited as the  
3 “Pacific Northwest Earthquake Preparedness Act of  
4 2019”.

5 (b) **CASCADIA SUBDUCTION ZONE DEFINED.**—In  
6 this Act, the term “Cascadia Subduction Zone” means the  
7 landward-dipping fault that is approximately 684 miles  
8 long, separates the Juan de Fuca and North America  
9 plates, and stretches along a portion of the western coast  
10 of the United States beginning off Cape Mendocino, Cali-  
11 fornia, along the State of Oregon, the State of Wash-  
12 ington, to Northern Vancouver Island, British Columbia.

13 **SEC. 2. EARTHQUAKE EARLY WARNING SYSTEM FOR**  
14 **CASCADIA SUBDUCTION ZONE.**

15 (a) **PLAN FOR PURCHASE AND INSTALLATION.**—

16 (1) **DEVELOPMENT AND FUNDING.**—The Ad-  
17 ministrator of the Federal Emergency Management  
18 Agency shall—

19 (A) develop a plan for the purchase and in-  
20 stallation of an earthquake early warning sys-  
21 tem for the Cascadia Subduction Zone; and

22 (B) identify the funds necessary for imple-  
23 mentation of the plan.

24 (2) **SUBMISSION TO CONGRESS.**—Not later than  
25 90 days after the date of enactment of this Act, the

1 Administrator shall submit to the appropriate com-  
2 mittees of Congress a copy of the plan.

3 (b) REPORT TO CONGRESS.—Not later than 1 year  
4 after the date of enactment of this Act, the Administrator  
5 shall submit to the appropriate committees of Congress  
6 a report that summarizes the actions taken to implement  
7 the plan.

8 (c) DEFINITIONS.—In this section, the following defi-  
9 nitions apply:

10 (1) APPROPRIATE COMMITTEES OF CON-  
11 GRESS.—The term “appropriate committees of Con-  
12 gress” means the Committee on Transportation and  
13 Infrastructure of the House of Representatives and  
14 the Committee on Homeland Security and Govern-  
15 mental Affairs of the Senate.

16 (2) EARTHQUAKE EARLY WARNING SYSTEM.—  
17 The term “earthquake early warning system” in-  
18 cludes—

19 (A) improvements to regional and geodetic  
20 networks that support building a capability for  
21 an earthquake early warning system; and

22 (B) seismometers, Global Positioning Sys-  
23 tem receivers, and associated infrastructure.

1 **SEC. 3. EARTHQUAKE AND TSUNAMI TASK FORCE.**

2 (a) IN GENERAL.—The President shall establish an  
3 Earthquake and Tsunami Task Force for the purpose of  
4 developing a comprehensive strategy and recommenda-  
5 tions on how the Nation should prepare and plan for, miti-  
6 gate against, respond to, recover from, and more success-  
7 fully adapt to a covered event in the Cascadia Subduction  
8 Zone.

9 (b) TASK FORCE.—

10 (1) MEMBERSHIP.—The membership of the  
11 Task Force shall include a cross section of subject  
12 matter experts representing the following:

13 (A) Relevant Federal agencies.

14 (B) The States of Oregon, Washington,  
15 and California.

16 (C) Indian tribes, local governments, and  
17 private sector representatives that may be im-  
18 pacted by a covered event in the Cascadia  
19 Subduction Zone.

20 (D) Universities, academia, and research  
21 institutions with expertise in topics relevant to  
22 the work of the Task Force.

23 (2) CHAIRPERSON.—The Administrator (or the  
24 Administrator's designee) shall serve as the chair-  
25 person of the Task Force.

1           (3) DETAILED EMPLOYEES.—Members of the  
2 Task Force may detail employees to assist the Ad-  
3 ministrator (or the Administrator’s designee) in ful-  
4 filling the responsibilities of the Task Force.

5 (c) COMPREHENSIVE STRATEGY.—

6           (1) STRATEGY.—The comprehensive strategy to  
7 be developed under subsection (a) shall include the  
8 following:

9           (A) A description of how Federal agencies  
10 will coordinate to develop the ability to prepare  
11 and plan for, mitigate against, respond to, re-  
12 cover from, and more successfully adapt to the  
13 impacts of a covered event in the Cascadia  
14 Subduction Zone.

15           (B) A strategy to ensure collaboration be-  
16 tween the Department of Transportation, the  
17 Department of Energy, the Coast Guard, the  
18 Corps of Engineers, and other Federal agencies,  
19 as appropriate, for purposes of—

20           (i) completing a needs assessment of  
21 Federal facilities in need of hardening for  
22 a covered event; and

23           (ii) developing a strategic plan to  
24 mitigate and retrofit Federal, State, tribal,  
25 and local critical assets for freight, energy,

1 and transit purposes to withstand a cov-  
2 ered event and to help save lives during  
3 and immediately after a covered event.

4 (C) A strategy—

5 (i) to assist State, tribal, and local  
6 governments in developing and imple-  
7 menting a coordinated and comprehensive  
8 plan to prioritize Federal, State, tribal,  
9 local, and private investments and activi-  
10 ties to develop the ability to prepare and  
11 plan for, mitigate against, respond to, re-  
12 cover from, and more successfully adapt to  
13 the impacts of a covered event in the  
14 Cascadia Subduction Zone; and

15 (ii) to link any existing statewide miti-  
16 gation plan with such a coordinated and  
17 comprehensive plan.

18 (D) With respect to the strategy described  
19 in subparagraph (C), an examination of the fea-  
20 sibility of the public sector, the private sector,  
21 and individuals to acquire earthquake insur-  
22 ance.

23 (E) An identification of funding opportuni-  
24 ties to implement the comprehensive strategy

1 and any recommendations made by the Task  
2 Force, including—

3 (i) existing funding opportunities  
4 across Federal agencies and other sources;  
5 and

6 (ii) potential new funding opportuni-  
7 ties.

8 (F) An identification of barriers to obtain-  
9 ing funding for the implementation of the com-  
10 prehensive strategy and recommendations on  
11 how to remove the barriers.

12 (G) A strategy for appropriate Federal  
13 agencies to collaborate with and assist State,  
14 tribal, and local governments in developing rec-  
15 ommendations for cost-effective mitigation al-  
16 ternatives for aging State, tribal, and locally  
17 owned critical infrastructure.

18 (H) A strategy for assisting State, tribal,  
19 and local governments in developing a recovery  
20 plan prior to a covered event in the Cascadia  
21 Subduction Zone that addresses how State,  
22 tribal, and local governments may want to re-  
23 build after the event.

24 (I) An identification of the steps taken to  
25 date to develop an onshore and offshore earth-

1 quake early warning system and a description  
2 of the purpose and scope of such a system.

3 (J) An evaluation of the types of offshore  
4 earthquake early warning systems and rec-  
5 ommendations and a cost estimate for an earth-  
6 quake early warning system appropriate for the  
7 Cascadia Subduction Zone.

8 (K) Recommendations on how an earth-  
9 quake early warning system should operate, in-  
10 cluding whether and how the system should  
11 interface with the private sector.

12 (L) A description of appropriate roles and  
13 responsibilities for Federal, State, local, and  
14 tribal governments, including who should oper-  
15 ate and maintain an earthquake early warning  
16 system, the cost of the system, and possible  
17 funding sources for the system.

18 (M) A plan on how to integrate an earth-  
19 quake early warning system into existing and  
20 new public alert warning systems and tech-  
21 nologies, including mobile systems.

22 (2) USE OF EXISTING PLANS.—In developing  
23 the comprehensive strategy, the Task Force may use  
24 existing plans, studies, and other resources.



1 (d) RECOMMENDATIONS.—The recommendations to  
2 be developed by the Task Force under subsection (a) shall  
3 include recommendations on—

4 (1) potential administrative or legislative  
5 changes required to implement the comprehensive  
6 strategy;

7 (2) the funding required to implement the com-  
8 prehensive strategy and the recommendations; and

9 (3) the order of priority for implementation of  
10 the comprehensive strategy.

11 (e) NATIONAL ACADEMIES.—

12 (1) COLLABORATION.—The Task Force shall  
13 work simultaneously and collaboratively with the Na-  
14 tional Academies.

15 (2) AGREEMENT.—The Task Force shall enter  
16 into an agreement with the National Academies  
17 under which the National Academies shall develop  
18 recommendations for a Federal research strategy to  
19 advance scientific understanding of a Cascadia  
20 Subduction Zone earthquake and resulting tsunami  
21 preparedness, including the following:

22 (A) Geologic conditions, ground motions,  
23 and tsunami hazards.

24 (B) Implications of an effective automated  
25 early warning system.

1 (C) Effects of mega-earthquake and tsu-  
2 nami events on the built and natural environ-  
3 ment.

4 (D) Social and behavioral factors for effec-  
5 tive disaster preparedness and response.

6 (E) Cost-effective mitigation alternatives  
7 for legacy and aging infrastructure.

8 (F) Strategic planning for freight, energy,  
9 and transit network robustness.

10 (G) Tools that help communities invest  
11 their resources for the greatest benefit.

12 (H) Any other topics identified as nec-  
13 essary by the Task Force or the National Acad-  
14 emies.

15 (f) REPORT.—Not later than 18 months after the  
16 date of enactment of this Act, the Administrator shall sub-  
17 mit to the Committee on Transportation and Infrastruc-  
18 ture of the House of Representatives and the Committee  
19 on Homeland Security and Governmental Affairs of the  
20 Senate a report of the Task Force that includes the fol-  
21 lowing:

22 (1) The comprehensive strategy to be developed  
23 under subsection (a).

24 (2) The recommendations to be developed under  
25 subsections (a), (d), and (e).

1 (g) DEFINITIONS.—In this section, the following defi-  
2 nitions apply:

3 (1) ADMINISTRATOR.—The term “Adminis-  
4 trator” means the Administrator of the Federal  
5 Emergency Management Agency.

6 (2) COVERED EVENT.—The term “covered  
7 event” means an earthquake, tsunami, or combined  
8 earthquake and tsunami event.

9 (3) TASK FORCE.—The term “Task Force”  
10 means the Federal interagency task force to be es-  
11 tablished under subsection (a).

Passed the House of Representatives February 6,  
2019.

Attest:

KAREN L. HAAS,

*Clerk.*