

114TH CONGRESS  
1ST SESSION

# H. R. 2616

To direct the Administrator of the Federal Emergency Management Agency to enter into an agreement with the National Academy of Sciences to conduct a study on urban flooding, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JUNE 2, 2015

Mr. QUIGLEY (for himself, Ms. NORTON, Mr. GUTIÉRREZ, Mr. HUFFMAN, Mr. POLIS, and Mr. PAYNE) introduced the following bill; which was referred to the Committee on Transportation and Infrastructure, and in addition to the Committee on Financial Services, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## A BILL

To direct the Administrator of the Federal Emergency Management Agency to enter into an agreement with the National Academy of Sciences to conduct a study on urban flooding, 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,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Urban Flooding  
5 Awareness Act of 2015”.

1 **SEC. 2. URBAN FLOODING DEFINED.**

2 (a) IN GENERAL.—In this Act, the term “urban  
3 flooding” means the inundation of property in a built envi-  
4 ronment, particularly in more densely populated areas,  
5 caused by rain falling on increased amounts of impervious  
6 surface and overwhelming the capacity of drainage sys-  
7 tems, such as storm sewers.

8 (b) INCLUSIONS.—In this Act, the term “urban flood-  
9 ing” includes—

10 (1) situations in which stormwater enters build-  
11 ings through windows, doors, or other openings;

12 (2) water backup through sewer pipes, showers,  
13 toilets, sinks, and floor drains;

14 (3) seepage through walls and floors;

15 (4) the accumulation of water on property or  
16 public rights-of-way; and

17 (5) the overflow from water bodies, such as riv-  
18 ers and lakes.

19 (c) EXCLUSION.—In this Act, the term “urban flood-  
20 ing” does not include flooding in undeveloped or agricul-  
21 tural areas.

22 (d) PRIMARY FOCUS OF STUDY.—Although the defi-  
23 nition of the term “urban flooding” in this section ac-  
24 knowledges that flooding may be caused in part by the  
25 overflow of rivers or other bodies of water, the primary  
26 focus of the study under section 3 shall be on urban areas

1 outside of special flood hazard areas, as that term is de-  
2 fined by the Federal Emergency Management Agency.

3 **SEC. 3. URBAN FLOODING STUDY.**

4 (a) AGREEMENT WITH NATIONAL ACADEMY OF  
5 SCIENCES.—The Administrator of the Federal Emergency  
6 Management Agency shall enter into an agreement with  
7 the National Academy of Sciences under which the Na-  
8 tional Academy of Sciences will conduct a study on urban  
9 flooding in accordance with the requirements of this sec-  
10 tion.

11 (b) CONTENTS.—

12 (1) GENERAL REVIEW AND EVALUATION.—In  
13 conducting the study, the National Academy of  
14 Sciences shall review and evaluate the latest avail-  
15 able research, laws, regulations, policies, best prac-  
16 tices, procedures, and institutional knowledge re-  
17 garding urban flooding.

18 (2) SPECIFIC ISSUE AREAS.—The study shall  
19 include, at a minimum, an examination of the fol-  
20 lowing:

21 (A) The prevalence and costs associated  
22 with urban flooding events across the United  
23 States, with a focus on the largest metropolitan  
24 areas and any clear trends in frequency and se-  
25 verity over the past 2 decades.

1           (B) The adequacy of existing federally pro-  
2           vided flood risk information and the most cost  
3           effective methods and products to identify, map,  
4           or otherwise characterize the risk of property  
5           damage from urban flooding on a property-by-  
6           property basis, whether or not a property is in  
7           or adjacent to a 1-percent (100-year) flood  
8           plain, and the potential for training and certi-  
9           fying local experts in flood risk characterization  
10          as a service to property purchasers and owners  
11          and their communities.

12          (C) The causes of urban flooding and its  
13          apparent increase over the past 20 years, in-  
14          cluding the impacts of—

15                 (i) global climate change;

16                 (ii) increasing urbanization and the  
17                 associated increase in impervious surfaces;  
18                 and

19                 (iii) undersized, deteriorating, and  
20                 otherwise ineffective stormwater infrastruc-  
21                 ture.

22          (D) The most cost-effective strategies,  
23          practices, technologies, policies, standards, or  
24          rules used to reduce the impacts of urban flood-  
25          ing, with a focus on decentralized, easy-to-in-

1 stall, and low-cost approaches, such as non-  
2 structural and natural infrastructure on public  
3 and private property. The examination under  
4 this subparagraph shall include an assessment  
5 of opportunities for implementing innovative  
6 strategies and practices on government-con-  
7 trolled land, such as Federal, State, and local  
8 roads, parking lots, alleys, sidewalks, buildings,  
9 recreational areas, and open space.

10 (E) The role of the Federal Government  
11 and State governments, as conveners, funders,  
12 and advocates, in spurring market innovations  
13 based on public-private-nonprofit partnerships.  
14 Such innovations may include smart home tech-  
15 nologies for improved flood warning systems  
16 connected to high-resolution weather forecast  
17 data and Internet- and cellular-based commu-  
18 nications systems.

19 (F) The most sustainable and effective  
20 methods for funding flood risk and flood dam-  
21 age reduction at all levels of government, in-  
22 cluding—

23 (i) the potential for establishing a  
24 State revolving fund program for flood pre-  
25 vention projects similar to the revolving

1 fund programs under the Federal Water  
2 Pollution Control Act and the Safe Drink-  
3 ing Water Act;

4 (ii) stormwater fee programs using  
5 impervious surface as the basis for fee  
6 rates and providing credits for the installa-  
7 tion of flood prevention or other  
8 stormwater management features;

9 (iii) grant programs; and

10 (iv) public-private partnerships.

11 (G) Information and education strategies  
12 and practices, including nontraditional ap-  
13 proaches such as the use of community colleges  
14 and social media, for community leaders, gov-  
15 ernment staff, and property owners on—

16 (i) flood risks;

17 (ii) flood risk reduction strategies and  
18 practices; and

19 (iii) the availability and effectiveness  
20 of different types of flood insurance poli-  
21 cies.

22 (H) The relevance of the National Flood  
23 Insurance Program and Community Rating  
24 System to urban flooding areas outside tradi-  
25 tional flood plains, and strategies for improving

1 compliance, broadening coverage, and increas-  
2 ing participation under the programs.

3 (I) Strategies for protecting communities  
4 in the lower elevations of a watershed or drain-  
5 age area from the flooding impacts of develop-  
6 ment in upstream communities, including a re-  
7 view of—

8 (i) potential standards for watershed-  
9 wide flood protection planning; and

10 (ii) cost-effective and equitable legal  
11 options for a downstream community when  
12 upstream communities act in a way that  
13 increases flooding downstream.

14 (J) Cost-effective strategies for reducing  
15 infiltration/inflow into combined and separate  
16 sewer systems.

17 (K) Opportunities to increase coordination  
18 between stormwater management programming  
19 under the Federal Water Pollution Control Act  
20 (33 U.S.C. 1251 et seq.) and flood risk man-  
21 agement and mitigation programming under  
22 various laws, including the Robert T. Stafford  
23 Disaster Relief and Emergency Assistance Act  
24 (42 U.S.C. 5121 et seq.) and the National

1 Flood Insurance Act of 1968 (42 U.S.C. 4001  
2 et seq.).

3 (c) CONSULTATION.—

4 (1) IN GENERAL.—The Administrator of the  
5 Federal Emergency Management Agency shall carry  
6 out this section in consultation with the Secretary of  
7 the Army (acting through the Chief of Engineers),  
8 the Secretary of Housing and Urban Development,  
9 the Administrator of the Environmental Protection  
10 Agency, the Director of the United States Geological  
11 Survey, the Chief of the Natural Resources Con-  
12 servation Service, the Administrator of the Small  
13 Business Administration, State, regional, and local  
14 stormwater management agencies, State insurance  
15 commissioners, and such other interested parties as  
16 the Administrator of the Federal Emergency Man-  
17 agement Agency considers appropriate.

18 (2) COOPERATION.—The head of each Federal  
19 agency referred to in paragraph (1) shall cooperate  
20 with the Administrator of the Federal Emergency  
21 Management Agency in carrying out this section as  
22 requested by the Administrator.

23 (d) REPORT TO CONGRESS.—Not later than Decem-  
24 ber 31, 2016, the Administrator of the Federal Emergency  
25 Management Agency shall submit to the Committee on Fi-



1 nancial Services and the Committee on Appropriations of  
2 the House of Representatives and the Committee on  
3 Banking, Housing, and Urban Affairs and the Committee  
4 on Appropriations of the Senate a report containing the  
5 findings of the National Academy of Sciences based on  
6 the results of the study, including recommendations for  
7 implementation of strategies, practices, and technologies  
8 relating to urban flooding by Congress and the executive  
9 branch.

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