

111TH CONGRESS  
2D SESSION

**S.** \_\_\_\_\_

To establish centers of excellence for green infrastructure, and for other purposes.

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## IN THE SENATE OF THE UNITED STATES

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Mr. UDALL of New Mexico (for himself and Mr. WHITEHOUSE) introduced the following bill; which was read twice and referred to the Committee on

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## A BILL

To establish centers of excellence for green infrastructure,  
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 “Green Infrastructure  
5   for Clean Water Act of 2010”.

### 6   **SEC. 2. FINDINGS.**

7       Congress finds that—

8               (1) many water resources in the United States  
9       are declining, particularly in urban areas;

1           (2) that decline of water resources is the result  
2           of an increase in population, water consumption, and  
3           impermeable surfaces, as well as the negative effects  
4           of urbanization, commercial and industrial activities,  
5           and climate change; and

6           (3) an October 2008 study by the National Re-  
7           search Council found that some of the benefits of  
8           green infrastructure include increased water sup-  
9           plies, the creation of green jobs, cost savings, and a  
10          reduction of stormwater runoff, surface water dis-  
11          charge, stormwater pollution, and stormwater flows.

12 **SEC. 3. DEFINITIONS.**

13       In this Act:

14           (1) ADMINISTRATOR.—The term “Adminis-  
15          trator” means the Administrator of the Environ-  
16          mental Protection Agency.

17           (2) CENTER.—The term “center” means a cen-  
18          ter of excellence for green infrastructure established  
19          under section 4(a).

20           (3) ELIGIBLE ENTITY.—The term “eligible enti-  
21          ty” means—

22                   (A) a State, tribal, or local government; or

23                   (B) a local, regional, or other entity that  
24          manages stormwater, water resources, or waste  
25          water resources.

1 (4) ELIGIBLE INSTITUTION.—

2 (A) IN GENERAL.—The term “eligible in-  
3 stitution” means an institution of higher edu-  
4 cation (as defined in section 101 of the Higher  
5 Education Act of 1965 (20 U.S.C. 1001)), or a  
6 research institution, that has demonstrated ex-  
7 cellence in green infrastructure by—

8 (i) conducting research on green in-  
9 frastructure to determine the means by  
10 which green infrastructure reduces  
11 stormwater runoff, enhances and protects  
12 drinking water sources, and improves  
13 water quality;

14 (ii) developing and disseminating in-  
15 formation regarding the means by which  
16 an organization can use green infrastruc-  
17 ture;

18 (iii) providing technical assistance to  
19 an organization for a green infrastructure  
20 project;

21 (iv) developing best practices stand-  
22 ards for green infrastructure;

23 (v) providing job training relating to  
24 green infrastructure;

25 (vi) developing course curricula for—

1 (I) elementary schools (as defined  
2 in section 9101 of the Elementary and  
3 Secondary Education Act of 1965 (20  
4 U.S.C. 7801));

5 (II) secondary schools (as defined  
6 in that section);

7 (III) institutions of higher edu-  
8 cation (as defined in section 101 of  
9 the Higher Education Act of 1965 (20  
10 U.S.C. 1001)); and

11 (IV) vocational schools;

12 (vii) training students regarding green  
13 infrastructure; or

14 (viii) providing information to the  
15 Federal Government or State, tribal, and  
16 local governments regarding the implemen-  
17 tation of green infrastructure.

18 (B) ASSOCIATED DEFINITION.—For pur-  
19 poses of subparagraph (A), the term “research  
20 institution” means an entity that is—

21 (i) described in section 501(c)(3) of  
22 the Internal Revenue Code of 1986;

23 (ii) exempt from tax under section  
24 501(a) of the Internal Revenue Code of  
25 1986; and

1 (iii) organized and operated for re-  
2 search purposes.

3 (5) GREEN INFRASTRUCTURE.—

4 (A) IN GENERAL.—The term “green infra-  
5 structure” means any stormwater management  
6 technique that preserves, restores, enhances, or  
7 mimics natural hydrology.

8 (B) INCLUSIONS.—The term “green infra-  
9 structure” includes—

10 (i) methods that promote absorption,  
11 uptake, percolation, evapotranspiration,  
12 and filtration by soil and plant life; and

13 (ii) the preservation or restoration  
14 of—

15 (I) natural topography, including  
16 hills, plains, ravines, and shorelines;

17 (II) interconnected networks of  
18 natural land that protect essential ec-  
19 ological functions critical for water  
20 quality;

21 (III) ecology, including forests,  
22 grasslands, and deserts;

23 (IV) bodies of water, including  
24 lakes, flood plains, headwaters, and  
25 wetlands; and

1 (V) native soil characteristics of  
2 composition, structure, and  
3 transmissivity.

4 (6) INDIAN TRIBE.—The term “Indian tribe”  
5 has the meaning given the term in section 518(h) of  
6 the Federal Water Pollution Control Act (33 U.S.C.  
7 1377(h)).

8 (7) STATE.—The term “State” means—

9 (A) each of the several States of the  
10 United States;

11 (B) the District of Columbia;

12 (C) the Commonwealth of Puerto Rico;

13 (D) Guam;

14 (E) American Samoa;

15 (F) the Commonwealth of the Northern  
16 Mariana Islands;

17 (G) the Federated States of Micronesia;

18 (H) the Republic of the Marshall Islands;

19 (I) the Republic of Palau; and

20 (J) the United States Virgin Islands.

21 **SEC. 4. CENTERS OF EXCELLENCE FOR GREEN INFRA-**  
22 **STRUCTURE.**

23 (a) ESTABLISHMENT OF CENTERS.—

24 (1) IN GENERAL.—The Administrator shall pro-  
25 vide grants, on a competitive basis, to eligible insti-

1        tutions to establish and maintain not less than 3,  
2        and not more than 5, centers of excellence for green  
3        infrastructure, to be located in various regions  
4        throughout the United States.

5            (2)    GENERAL    OPERATION.—Each    center  
6        shall—

7                    (A) conduct research on green infrastruc-  
8                    ture that is relevant to the geographical region  
9                    in which the center is located, including  
10                   stormwater and sewer overflow reduction, other  
11                   approaches to water resource enhancement, and  
12                   other environmental, economic, and social bene-  
13                   fits;

14                   (B) develop manuals and establish industry  
15                   standards on best management practices relat-  
16                   ing to State, tribal, local, and commercial green  
17                   infrastructure for use by State, tribal, and local  
18                   governments and the private sector;

19                   (C) provide information regarding research  
20                   conducted under subparagraph (A) and manu-  
21                   als developed under subparagraph (B) to the  
22                   national electronic clearinghouse center for pub-  
23                   lication on the Internet website established  
24                   under subsection (c) to provide to the Federal  
25                   Government and State, tribal, and local govern-

1           ments and the private sector information re-  
2           garding green infrastructure;

3           (D) provide technical assistance to State,  
4           tribal, and local governments to assist with the  
5           construction, operation, and maintenance of  
6           green infrastructure projects;

7           (E) collaborate with institutions of higher  
8           education and private and public organizations  
9           in the geographical region in which the center  
10          is located on green infrastructure research and  
11          technical assistance projects;

12          (F) assist institutions of higher education,  
13          secondary schools, and vocational schools to de-  
14          velop green infrastructure curricula;

15          (G) provide training regarding green infra-  
16          structure to institutions of higher education and  
17          professional schools;

18          (H) evaluate regulatory and policy issues  
19          relating to green infrastructure; and

20          (I) coordinate with the other centers to  
21          avoid duplication of efforts.

22          (b) APPLICATION.—To be eligible to receive a grant  
23          under this section, an eligible institution shall prepare and  
24          submit to the Administrator an application at such a time,



1 in such form, and containing such information as the Ad-  
2 ministrator may require.

3 (c) NATIONAL ELECTRONIC CLEARINGHOUSE CEN-  
4 TER.—Of the centers established under section (a)(1), 1  
5 shall—

6 (1) be designated as the “national electronic  
7 clearinghouse center”; and

8 (2) in addition to the other functions of that  
9 center—

10 (A) develop, operate, and maintain an  
11 Internet website and a public database that  
12 contain information relating to green infra-  
13 structure; and

14 (B) post to the website information from  
15 all centers.

16 **SEC. 5. GREEN INFRASTRUCTURE PROJECT GRANTS.**

17 (a) GRANT AUTHORITY.—The Administrator shall  
18 provide grants, on a competitive basis, to eligible entities  
19 to carry out green infrastructure projects in accordance  
20 with this section.

21 (b) GREEN INFRASTRUCTURE PROJECTS.—

22 (1) PLANNING AND DEVELOPMENT GRANTS.—  
23 The Administrator may make planning and develop-  
24 ment grants under this section for the following  
25 projects:

1 (A) Planning and designing green infra-  
2 structure projects, including engineering sur-  
3 veys, landscape plans, maps, and implementa-  
4 tion plans.

5 (B) Identifying and developing standards  
6 and revisions to local zoning, building, or other  
7 local codes necessary to accommodate green in-  
8 frastructure projects.

9 (C) Identifying and developing fee struc-  
10 tures to provide financial support for design, in-  
11 stallation, and operations and maintenance of  
12 green infrastructure.

13 (D) Developing training and educational  
14 materials regarding green infrastructure for  
15 distribution to—

16 (i) individuals and entities with appli-  
17 cable technical knowledge; and

18 (ii) the public.

19 (E) Developing a green infrastructure  
20 portfolio standard program described in section  
21 6(e).

22 (2) IMPLEMENTATION GRANTS.—The Adminis-  
23 trator may make implementation grants under this  
24 section for the following projects:

25 (A) Installing green infrastructure.

1 (B) Protecting or restoring interconnected  
2 networks of natural areas that protect water  
3 quality.

4 (C) Monitoring and evaluating the environ-  
5 mental, economic, or social benefits of green in-  
6 frastructure.

7 (D) Implementing a best practices stand-  
8 ard for a green infrastructure program.

9 (E) Implementing a green infrastructure  
10 portfolio standard program described in section  
11 6(e).

12 (c) APPLICATION.—Except as otherwise provided in  
13 this Act, to be eligible to receive a grant under this section,  
14 an eligible entity shall prepare and submit to the Adminis-  
15 trator an application at such time, in such form, and con-  
16 taining such information as the Administrator may re-  
17 quire, including, as applicable—

18 (1) a description of the green infrastructure  
19 project;

20 (2) a plan for monitoring the impacts of the  
21 green infrastructure project on the water quality and  
22 quantity;

23 (3) an evaluation of other environmental, eco-  
24 nomic, and social benefits of the green infrastructure  
25 project; and

1           (4) a plan for the long-term operation and  
2           maintenance of the green infrastructure project.

3           (d) ADDITIONAL REQUIREMENT FOR GREEN INFRA-  
4           STRUCTURE PORTFOLIO STANDARD PROJECT.—In addi-  
5           tion to an application under subsection (c), a State or In-  
6           dian tribe applying for a grant for a green infrastructure  
7           portfolio standard program described in section 6(e) shall  
8           prepare and submit to the Administrator a schedule of in-  
9           creasing minimum percentages of the annual water to be  
10          managed using green infrastructure under the program.

11          (e) PRIORITY.—In making grants under this section,  
12          the Administrator shall give priority to applications sub-  
13          mitted on behalf of—

14                (1) a community that—

15                    (A) has combined storm and sanitary sew-  
16                    ers in the collection system of the community;  
17                    or

18                    (B) is a low-income or disadvantaged com-  
19                    munity, as determined by the Administrator; or

20                (2) an eligible entity that will use not less than  
21                10 percent of the grant to provide service to a low-  
22                income or disadvantaged community, as determined  
23                by the Administrator.

24          (f) MAXIMUM AMOUNTS.—

25                (1) PLANNING AND DEVELOPMENT GRANTS.—

1 (A) SINGLE GRANT.—The amount of a sin-  
2 gle planning and development grant provided  
3 under this section shall be not more than  
4 \$200,000.

5 (B) AGGREGATE AMOUNT.—The total  
6 amount of all planning and development grants  
7 provided under this section during a fiscal year  
8 shall be not more than  $\frac{1}{3}$  of the total amount  
9 made available to carry out this section.

10 (2) IMPLEMENTATION GRANTS.—

11 (A) SINGLE GRANT.—The amount of a sin-  
12 gle implementation grant provided under this  
13 section shall be not more than \$3,000,000.

14 (B) AGGREGATE AMOUNT.—The total  
15 amount of all implementation grants provided  
16 under this section during a fiscal year shall be  
17 not more than  $\frac{2}{3}$  of the total amount made  
18 available to carry out this section.

19 (g) FEDERAL SHARE.—

20 (1) IN GENERAL.—Except as provided in para-  
21 graph (3), the Federal share of a grant provided  
22 under this section shall not exceed 65 percent of the  
23 total project cost.

24 (2) CREDIT FOR IMPLEMENTATION GRANTS.—

25 The Administrator shall credit toward the non-Fed-

1        eral share of the cost of an implementation project  
2        carried out under this section the cost of planning,  
3        design, and construction work completed for the  
4        project using funds other than funds provided under  
5        this Act.

6            (3) EXCEPTION.—The Administrator may waive  
7        the Federal share limitation under paragraph (1) for  
8        an eligible entity that has adequately demonstrated  
9        financial need.

10    **SEC. 6. ENVIRONMENTAL PROTECTION AGENCY GREEN IN-**  
11            **FRASTRUCTURE PROGRAM.**

12        (a) ESTABLISHMENT.—The Administrator shall es-  
13        tablish within the Office of Water of the Environmental  
14        Protection Agency a green infrastructure program, the  
15        purposes of which shall be—

16            (1) to coordinate and promote the use of green  
17        infrastructure; and

18            (2) to integrate green infrastructure into per-  
19        mitting programs.

20        (b) DUTIES.—The Administrator shall carry out the  
21        green infrastructure program by—

22            (1) promoting the use of green infrastructure in  
23        the programs of the Environmental Protection Agen-  
24        cy; and

1           (2) coordinating efforts to increase the use of  
2       green infrastructure with—

3                   (A) other Federal departments and agen-  
4       cies;

5                   (B) State, tribal, and local governments;  
6       and

7                   (C) the private sector.

8       (c) REGIONAL IMPLEMENTATION OF GREEN INFRA-  
9       STRUCTURE PROGRAM.—The Administrator shall direct  
10   each regional office of the Environmental Protection  
11   Agency to develop a program to promote and integrate the  
12   use of green infrastructure within the region that in-  
13   cludes—

14           (1) a plan for monitoring, financing, mapping,  
15       and designing the green infrastructure;

16           (2) outreach and training regarding green in-  
17       frastructure implementation for State, tribal, and  
18       local governments and the private sector; and

19           (3) the incorporation of green infrastructure  
20       into permitting and other regulatory programs,  
21       codes, and ordinance development, including the re-  
22       quirements under consent decrees and settlement  
23       agreements in enforcement actions.

24       (d) GREEN INFRASTRUCTURE COMPLIANCE ASSIST-  
25       ANCE CENTER.—The Administrator shall establish a com-

1 pliance assistance center, including a Internet website, to  
2 share information with, and provide technical assistance  
3 to, State, tribal, and local governments, the private sector,  
4 and the public regarding green infrastructure approaches  
5 for—

6 (1) reducing water pollution;

7 (2) protecting water resources;

8 (3) complying with regulatory requirements;

9 and

10 (4) achieving other environmental, public  
11 health, and community goals.

12 (e) GREEN INFRASTRUCTURE PORTFOLIO STAND-  
13 ARD.—The Administrator, in collaboration with State,  
14 tribal, and local water resource managers, shall establish  
15 measurable goals, to be known as the “green infrastruc-  
16 ture portfolio standard”, to increase the percentage of an-  
17 nual water managed by eligible entities that use green in-  
18 frastructure.

19 **SEC. 7. REPORT TO CONGRESS.**

20 Not later than September 30, 2014, the Adminis-  
21 trator shall submit to Congress a report that includes,  
22 with respect to the period covered by the report—

23 (1) a description of all grants provided under  
24 this Act;

25 (2) a detailed description of—



1 (A) the projects supported by those grants;

2 and

3 (B) the outcomes of those projects;

4 (3) a description of the improvements in tech-  
5 nology, environmental benefits, resources conserved,  
6 efficiencies, and other benefits of the projects funded  
7 under this Act;

8 (4) recommendations for improvements to pro-  
9 mote and support green infrastructure for the cen-  
10 ters, grants, and programs under this Act; and

11 (5) a description of existing challenges con-  
12 cerning the use of green infrastructure.

13 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

14 There are authorized to be appropriated to carry out  
15 this Act such sums as are necessary for each of fiscal  
16 years 2011 through 2014.