

112TH CONGRESS
1ST SESSION

S. 1115

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

IN THE SENATE OF THE UNITED STATES

MAY 26, 2011

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

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) the decline of water resources is the result
2 of—

3 (A) an increase in population, water con-
4 sumption, and impermeable surfaces; and

5 (B) the negative effects of urbanization,
6 commercial and industrial activities, and cli-
7 mate change; and

8 (3) an October 2008 study by the National Re-
9 search Council found that some of the benefits of
10 green infrastructure include—

11 (A) increased water supplies;

12 (B) the creation of jobs;

13 (C) cost savings; and

14 (D) a reduction of stormwater runoff, sur-
15 face water discharge, stormwater pollution, and
16 stormwater flows.

17 **SEC. 3. DEFINITIONS.**

18 In this Act:

19 (1) ADMINISTRATOR.—The term “Adminis-
20 trator” means the Administrator of the Environ-
21 mental Protection Agency.

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

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

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

4 (B) a local, regional, or other entity that
5 manages stormwater, drinking water resources,
6 or waste water resources.

7 (4) ELIGIBLE INSTITUTION.—

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

14 (i) conducting research on green in-
15 frastructure to determine the means by
16 which green infrastructure reduces
17 stormwater runoff, enhances and protects
18 drinking water sources, and improves
19 water quality;

20 (ii) developing and disseminating in-
21 formation regarding the means by which
22 an organization can use green infrastruc-
23 ture;

- 1 (iii) providing technical assistance to
2 an organization for a green infrastructure
3 project;
- 4 (iv) developing best practices stand-
5 ards for green infrastructure;
- 6 (v) providing job training relating to
7 green infrastructure;
- 8 (vi) developing course curricula for—
- 9 (I) elementary schools (as defined
10 in section 9101 of the Elementary and
11 Secondary Education Act of 1965 (20
12 U.S.C. 7801));
- 13 (II) secondary schools (as defined
14 in that section);
- 15 (III) institutions of higher edu-
16 cation (as defined in section 101 of
17 the Higher Education Act of 1965 (20
18 U.S.C. 1001)); or
- 19 (IV) vocational schools;
- 20 (vii) training students regarding green
21 infrastructure; or
- 22 (viii) providing information to the
23 Federal Government or State, tribal, and
24 local governments regarding the implemen-
25 tation of green infrastructure.

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

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

6 (ii) exempt from tax under section
7 501(a) of the Internal Revenue Code of
8 1986; and

9 (iii) organized and operated for re-
10 search purposes.

11 (5) GREEN INFRASTRUCTURE.—

12 (A) IN GENERAL.—The term “green infra-
13 structure” means any stormwater management
14 technique that preserves, restores, enhances, or
15 mimics natural hydrology.

16 (B) INCLUSIONS.—The term “green infra-
17 structure” includes—

18 (i) methods that promote absorption,
19 uptake, percolation, evapotranspiration,
20 and filtration by soil and plant life; and

21 (ii) the preservation or restoration
22 of—

23 (I) natural topography, including
24 hills, plains, ravines, and shorelines;

1 (II) interconnected networks of
2 natural land that protect essential ec-
3 ological functions critical for water
4 quality;

5 (III) ecology, including forests,
6 grasslands, and deserts;

7 (IV) bodies of water, including
8 lakes, flood plains, headwaters, and
9 wetlands; and

10 (V) native soil characteristics of
11 composition, structure, and
12 transmissivity.

13 (6) INDIAN TRIBE.—The term “Indian tribe”
14 has the meaning given the term in section 518(h) of
15 the Federal Water Pollution Control Act (33 U.S.C.
16 1377(h)).

17 (7) STATE.—The term “State” means—

18 (A) each of the several States of the
19 United States;

20 (B) the District of Columbia;

21 (C) the Commonwealth of Puerto Rico;

22 (D) Guam;

23 (E) American Samoa;

24 (F) the Commonwealth of the Northern
25 Mariana Islands;

- 1 (G) the Federated States of Micronesia;
2 (H) the Republic of the Marshall Islands;
3 (I) the Republic of Palau; and
4 (J) the United States Virgin Islands.

5 **SEC. 4. CENTERS OF EXCELLENCE FOR GREEN INFRA-**
6 **STRUCTURE.**

7 (a) ESTABLISHMENT OF CENTERS.—

8 (1) IN GENERAL.—The Administrator shall pro-
9 vide grants, on a competitive basis, to eligible insti-
10 tutions to establish and maintain not less than 3,
11 and not more than 5, centers of excellence for green
12 infrastructure, to be located in various regions
13 throughout the United States.

14 (2) GENERAL OPERATION.—Each center
15 shall—

16 (A) conduct research on green infrastruc-
17 ture that is relevant to the geographical region
18 in which the center is located, including
19 stormwater and sewer overflow reduction, other
20 approaches to water resource enhancement, and
21 other environmental, economic, and social bene-
22 fits;

23 (B) develop manuals and establish industry
24 standards on best management practices relat-
25 ing to State, tribal, local, and commercial green

1 infrastructure for use by State, tribal, and local
2 governments and the private sector;

3 (C) provide information regarding research
4 conducted under subparagraph (A) and manu-
5 als developed under subparagraph (B) to the
6 national electronic clearinghouse center for pub-
7 lication on the Internet website established
8 under subsection (c) to provide to the Federal
9 Government and State, tribal, and local govern-
10 ments and the private sector information re-
11 garding green infrastructure;

12 (D) provide technical assistance to State,
13 tribal, and local governments to assist with the
14 construction, operation, and maintenance of
15 green infrastructure projects;

16 (E) collaborate with institutions of higher
17 education and private and public organizations
18 in the geographical region in which the center
19 is located on green infrastructure research and
20 technical assistance projects;

21 (F) assist institutions of higher education,
22 secondary schools, and vocational schools to de-
23 velop green infrastructure curricula;

1 (G) provide training regarding green infra-
2 structure to institutions of higher education and
3 professional schools;

4 (H) evaluate regulatory and policy issues
5 relating to green infrastructure; and

6 (I) coordinate with the other centers to
7 avoid duplication of efforts.

8 (b) APPLICATION.—To be eligible to receive a grant
9 under this section, an eligible institution shall prepare and
10 submit to the Administrator an application at such a time,
11 in such form, and containing such information as the Ad-
12 ministrator may require.

13 (c) NATIONAL ELECTRONIC CLEARINGHOUSE CEN-
14 TER.—Of the centers established under subsection (a)(1),
15 1 shall—

16 (1) be designated as the “national electronic
17 clearinghouse center”; and

18 (2) in addition to the other functions of that
19 center—

20 (A) develop, operate, and maintain an
21 Internet website and a public database that
22 contain information relating to green infra-
23 structure; and

24 (B) post to the website information from
25 all centers.

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

2 (a) GRANT AUTHORITY.—The Administrator shall
3 provide grants, on a competitive basis, to eligible entities
4 to carry out green infrastructure projects in accordance
5 with this section.

6 (b) GREEN INFRASTRUCTURE PROJECTS.—

7 (1) PLANNING AND DEVELOPMENT GRANTS.—

8 The Administrator may make planning and develop-
9 ment grants under this section for the following
10 projects:

11 (A) Planning and designing green infra-
12 structure projects, including engineering sur-
13 veys, landscape plans, maps, and implementa-
14 tion plans.

15 (B) Identifying and developing standards
16 and revisions to local zoning, building, or other
17 local codes necessary to accommodate green in-
18 frastructure projects.

19 (C) Identifying and developing fee struc-
20 tures to provide financial support for design, in-
21 stallation, and operations and maintenance of
22 green infrastructure.

23 (D) Developing training and educational
24 materials regarding green infrastructure for
25 distribution to—

1 (i) individuals and entities with appli-
2 cable technical knowledge; and

3 (ii) the public.

4 (E) Developing a green infrastructure
5 portfolio standard program described in section
6 6(e).

7 (2) IMPLEMENTATION GRANTS.—The Adminis-
8 trator may make implementation grants under this
9 section for the following projects:

10 (A) Installing green infrastructure.

11 (B) Protecting or restoring interconnected
12 networks of natural areas that protect water
13 quality.

14 (C) Monitoring and evaluating the environ-
15 mental, economic, or social benefits of green in-
16 frastructure.

17 (D) Implementing a best practices stand-
18 ard for a green infrastructure program.

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

22 (c) APPLICATION.—Except as otherwise provided in
23 this Act, to be eligible to receive a grant under this section,
24 an eligible entity shall prepare and submit to the Adminis-
25 trator an application at such time, in such form, and con-

1 taining such information as the Administrator may re-
2 quire, including, as applicable—

3 (1) a description of the green infrastructure
4 project;

5 (2) a plan for monitoring the impacts of the
6 green infrastructure project on the water quality and
7 quantity;

8 (3) an evaluation of other environmental, eco-
9 nomic, and social benefits of the green infrastructure
10 project; and

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

13 (d) **ADDITIONAL REQUIREMENT FOR GREEN INFRA-**
14 **STRUCTURE PORTFOLIO STANDARD PROJECT.**—In addi-
15 tion to an application under subsection (c), a State or In-
16 dian tribe applying for a grant for a green infrastructure
17 portfolio standard program described in section 6(e) shall
18 prepare and submit to the Administrator a schedule of in-
19 creasing minimum percentages of the annual water to be
20 managed using green infrastructure under the program.

21 (e) **PRIORITY.**—In making grants under this section,
22 the Administrator shall give priority to applications sub-
23 mitted on behalf of—

24 (1) a community that—

1 (A) has combined storm and sanitary sew-
2 ers in the collection system of the community;
3 or

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

6 (2) an eligible entity that will use not less than
7 10 percent of the grant to provide service to a low-
8 income or disadvantaged community, as determined
9 by the Administrator.

10 (f) MAXIMUM AMOUNTS.—

11 (1) PLANNING AND DEVELOPMENT GRANTS.—

12 (A) SINGLE GRANT.—The amount of a sin-
13 gle planning and development grant provided
14 under this section shall be not more than
15 \$200,000.

16 (B) AGGREGATE AMOUNT.—The total
17 amount of all planning and development grants
18 provided under this section for a fiscal year
19 shall be not more than $\frac{1}{3}$ of the total amount
20 made available to carry out this section.

21 (2) IMPLEMENTATION GRANTS.—

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

1 (B) AGGREGATE AMOUNT.—The total
2 amount of all implementation grants provided
3 under this section for a fiscal year shall be not
4 more than $\frac{2}{3}$ of the total amount made avail-
5 able to carry out this section.

6 (g) FEDERAL SHARE.—

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

11 (2) CREDIT FOR IMPLEMENTATION GRANTS.—
12 The Administrator shall credit toward the non-Fed-
13 eral share of the cost of an implementation project
14 carried out under this section the cost of planning,
15 design, and construction work completed for the
16 project using funds other than funds provided under
17 this Act.

18 (3) EXCEPTION.—The Administrator may waive
19 the Federal share limitation under paragraph (1) for
20 an eligible entity that has adequately demonstrated
21 financial need.

22 **SEC. 6. ENVIRONMENTAL PROTECTION AGENCY GREEN IN-**
23 **FRASTRUCTURE PROMOTION.**

24 (a) IN GENERAL.—The Administrator shall ensure
25 that the Office of Water, the Office of Enforcement and

1 Compliance, the Office of Research and Development, and
2 the Office of Policy of the Environmental Protection Agen-
3 cy promote the use of green infrastructure in and coordi-
4 nate the integration of green infrastructure into permit-
5 ting programs, planning efforts, research, technical assist-
6 ance, and funding guidance.

7 (b) DUTIES.—The Administrator shall ensure that
8 the Office of Water—

9 (1) promotes the use of green infrastructure in
10 the programs of the Environmental Protection Agen-
11 cy; and

12 (2) coordinates efforts to increase the use of
13 green infrastructure with—

14 (A) other Federal departments and agen-
15 cies;

16 (B) State, tribal, and local governments;
17 and

18 (C) the private sector.

19 (c) REGIONAL GREEN INFRASTRUCTURE PRO-
20 MOTION.—The Administrator shall direct each regional of-
21 fice of the Environmental Protection Agency, as appro-
22 priate based on local factors, to promote and integrate the
23 use of green infrastructure within the region that in-
24 cludes—

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

3 (2) outreach and training regarding green in-
4 frastructure implementation for State, tribal, and
5 local governments, tribal communities, and the pri-
6 vate sector; and

7 (3) the incorporation of green infrastructure
8 into permitting and other regulatory programs,
9 codes, and ordinance development, including the re-
10 quirements under consent decrees and settlement
11 agreements in enforcement actions.

12 (d) GREEN INFRASTRUCTURE INFORMATION-SHAR-
13 ING.—The Administrator shall promote green infrastruc-
14 ture information-sharing, including through an Internet
15 website, to share information with, and provide technical
16 assistance to, State, tribal, and local governments, tribal
17 communities, the private sector, and the public regarding
18 green infrastructure approaches for—

19 (1) reducing water pollution;

20 (2) protecting water resources;

21 (3) complying with regulatory requirements;

22 and

23 (4) achieving other environmental, public
24 health, and community goals.

1 (e) GREEN INFRASTRUCTURE PORTFOLIO STAND-
2 ARD.—The Administrator, in collaboration with State,
3 tribal, and local water resource managers, shall establish
4 voluntary measurable goals, to be known as the “green
5 infrastructure portfolio standard”, to increase the percent-
6 age of annual water managed by eligible entities that use
7 green infrastructure.

8 **SEC. 7. REPORT TO CONGRESS.**

9 Not later than September 30, 2015, the Adminis-
10 trator shall submit to Congress a report that includes,
11 with respect to the period covered by the report—

12 (1) a description of all grants provided under
13 this Act;

14 (2) a detailed description of—

15 (A) the projects supported by those grants;

16 and

17 (B) the outcomes of those projects;

18 (3) a description of the improvements in tech-
19 nology, environmental benefits, resources conserved,
20 efficiencies, and other benefits of the projects funded
21 under this Act;

22 (4) recommendations for improvements to pro-
23 mote and support green infrastructure for the cen-
24 ters, grants, and activities under this Act; and

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

3 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

4 There are authorized to be appropriated to carry out
5 this Act such sums as are necessary for each of fiscal
6 years 2012 through 2017.

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