

Bill Nelson

115TH CONGRESS
2D SESSION

S. _____

To improve the resilience of the built and natural environment to natural disasters and climate change using, among other measures, natural and nature-based features, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. NELSON introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To improve the resilience of the built and natural environment to natural disasters and climate change using, among other measures, natural and nature-based features, 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 “Coastal Communities
5 Adaptation Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

1 (1) ADMINISTRATOR.—The term “Adminis-
2 trator” means the Administrator of the National
3 Oceanic and Atmospheric Administration.

4 (2) COASTAL STATE.—

5 (A) IN GENERAL.—The term “coastal
6 State” means a State of the United States in,
7 or bordering on, the Atlantic, Pacific, or Arctic
8 Ocean, the Gulf of Mexico, the Long Island
9 Sound, or 1 or more of the Great Lakes.

10 (B) INCLUSIONS.—The term “coastal
11 State” includes the District of Columbia, Puer-
12 to Rico, the Virgin Islands, Guam, the Com-
13 monwealth of the Northern Mariana Islands,
14 the Trust Territories of the Pacific Islands, and
15 American Samoa.

16 (3) NATURAL FEATURE.—The term “natural
17 feature” means a feature that is created through the
18 action of physical, geological, biological, and chem-
19 ical processes over time.

20 (4) NATURE-BASED FEATURE.—The term “na-
21 ture-based feature” means a feature that is created
22 by human design, engineering, and construction to
23 provide risk reduction in coastal areas by acting in
24 concert with natural processes.

1 (5) NONSTRUCTURAL MEASURE.—The term
2 “nonstructural measure” means an action, including
3 a modification in public policy, management prac-
4 tice, regulation, or pricing policy, that reduces harm-
5 ful consequences of flooding, but does not create a
6 structural barrier to floodwaters.

7 (6) SECRETARY.—The term “Secretary” means
8 the Secretary of Commerce.

9 **SEC. 3. RESEARCH AND GRANTS TO IMPROVE RESILIENCE**
10 **OF BUILT ENVIRONMENT.**

11 (a) DEFINITION OF WINDSTORM.—Section 203(5) of
12 the National Windstorm Impact Reduction Act of 2004
13 (42 U.S.C. 15702(5)) is amended to read as follows:

14 “(5) WINDSTORM.—

15 “(A) IN GENERAL.—The term ‘windstorm’
16 means any storm with a damaging or destruc-
17 tive wind component.

18 “(B) INCLUSIONS.—The term ‘windstorm’
19 includes—

20 “(i) a hurricane;

21 “(ii) a tropical storm;

22 “(iii) a northeaster;

23 “(iv) a tornado;

24 “(v) a thunderstorm; and

1 “(vi) any water induced forces from
2 waves, flood, storm surge, or rainfall re-
3 lated to a storm described in clauses (i)
4 through (v).”.

5 (b) NATIONAL INSTITUTE OF STANDARDS AND
6 TECHNOLOGY.—Section 204(b) of the National Wind-
7 storm Impact Reduction Act of 2004 (42 U.S.C.
8 15703(b)) is amended—

9 (1) in paragraph (1)(A), by striking “buildings”
10 and inserting “buildings, structures,”; and

11 (2) by amending paragraph (2) to read as fol-
12 lows:

13 “(2) NATIONAL INSTITUTE OF STANDARDS AND
14 TECHNOLOGY.—In addition to the lead agency re-
15 sponsibilities described under paragraph (1), the Di-
16 rector of the National Institute of Standards and
17 Technology shall—

18 “(A) carry out research and development
19 to improve the resilience and responsiveness of
20 buildings, structures, and lifelines to wind-
21 storms, including by recommending for the de-
22 sign, construction, and retrofit of buildings,
23 structures, and lifelines—

24 “(i) model building codes;

25 “(ii) voluntary design standards; and

1 “(iii) best practices;

2 “(B) award grants on a competitive basis
3 for research and development for the purpose
4 described in subparagraph (A);

5 “(C) in coordination with other relevant
6 public and private entities, provide the best-
7 available, forward-looking research and guid-
8 ance related to windstorms and other climate
9 change or extreme weather to standards devel-
10 oping organizations for their consideration in
11 the development of design standards and build-
12 ing codes; and

13 “(D) conduct public outreach and edu-
14 cation and training programs related to this
15 chapter for design and construction profes-
16 sionals.”.

17 (c) NATIONAL SCIENCE FOUNDATION.—Section
18 204(b)(3) of the National Windstorm Impact Reduction
19 Act of 2004 (42 U.S.C. 15703(b)(3)) is amended to read
20 as follows:

21 “(3) NATIONAL SCIENCE FOUNDATION.—The
22 Director of the National Science Foundation, in co-
23 ordination with the heads of other Federal agencies
24 conducting related activities, shall support research,
25 including multidisciplinary research—

1 “(A) in engineering and the atmospheric
2 sciences to improve the understanding of the
3 behavior of windstorms and their impact on
4 buildings, structures, and lifelines;

5 “(B) in economic and social factors influ-
6 encing windstorm risk reduction measures;

7 “(C) to improve the resilience of buildings,
8 structures, and lifelines to windstorms; and

9 “(D) to improve the responsiveness of
10 buildings, structures, and lifelines after a wind-
11 storm.”.

12 (d) DEPARTMENT OF HOUSING AND URBAN DEVEL-
13 OPMENT.—Section 204(b) of the National Windstorm Im-
14 pact Reduction Act of 2004 (42 U.S.C. 15703(b)) is
15 amended by adding at the end the following:

16 “(6) DEPARTMENT OF HOUSING AND URBAN
17 DEVELOPMENT.—The Secretary of the Department
18 of Housing and Urban Development shall promote
19 the adoption of windstorm preparedness and mitiga-
20 tion measures for manufactured HUD code housing
21 units.”:

22 (e) INTERAGENCY COORDINATING COMMITTEE ON
23 WINDSTORM IMPACT REDUCTION.—Section 204(e)(2)(A)
24 of the National Windstorm Impact Reduction Act of 2004
25 (42 U.S.C. 15703(e)(2)(A)) is amended—

1 (1) in clause (iv), by striking “; and” and in-
2 serting a semicolon; and

3 (2) by adding at the end the following:

4 “(vi) the Department of Housing and
5 Urban Development; and”.

6 **SEC. 4. BUILT TO LAST STAMP.**

7 (a) **IN GENERAL.**—In order to afford the public a di-
8 rect and tangible way to contribute to funding for shore-
9 line risk and climate change adaptation, the United States
10 Postal Service shall issue a semipostal (referred to in this
11 section as the “Built to Last Stamp”) in accordance with
12 subsection (b).

13 (b) **REQUIREMENTS.**—The provisions of section 416
14 of title 39, United States Code, shall apply as practicable
15 with respect to the Built to Last Stamp, subject to the
16 following:

17 (1) **DESIGN.**—The Built to Last Stamp shall
18 depict such design as the Postal Service, in consulta-
19 tion with the Secretary, considers appropriate.

20 (2) **DISPOSITION OF PROCEEDS.**—Subject to
21 subsection (d)(3) of that section, the amounts be-
22 coming available from the sale of the Built to Last
23 Stamp shall be deposited in the Built to Last Stamp
24 Fund under subsection (c) of this section.

25 (c) **BUILT TO LAST STAMP FUND.**—

1 (1) ESTABLISHMENT.—There is established in
2 the Treasury of the United States a fund, to be
3 known as the Built to Last Stamp Fund.

4 (2) ASSETS.—The Built to Last Stamp Fund
5 shall consist of the following:

6 (A) Amounts deposited under subsection
7 (b)(2).

8 (B) Such amounts as are appropriated or
9 otherwise made available to the fund.

10 (3) AVAILABILITY.—Amounts in the Built to
11 Last Stamp Fund shall remain available to the Sec-
12 retary to carry out sections 5 and 6 of this Act until
13 expended.

14 **SEC. 5. PRIZE COMPETITIONS.**

15 (a) IN GENERAL.—The Secretary may carry out a
16 program to award prizes competitively under section 24
17 of the Stevenson-Wydler Technology Innovation Act of
18 1980 (15 U.S.C. 3719), for the purpose described in sub-
19 section (b).

20 (b) PURPOSE.—The purpose described in this sub-
21 section is to stimulate innovation to advance coastal risk
22 reduction and resilience measures as follows:

23 (1) Natural features, including dunes, reefs,
24 and wetlands.

1 (2) Nature-based features, including beach
2 nourishment, dune restoration, wetland and other
3 coastal habitat restoration, and living shoreline con-
4 struction.

5 (3) Nonstructural measures, including flood
6 proofing of structures, flood warning systems, and
7 elevated development.

8 **SEC. 6. CATALOG OF RESEARCH ON APPLICABLE COASTAL**
9 **RISK REDUCTION AND RESILIENCE MEAS-**
10 **URES.**

11 (a) IN GENERAL.—Not later than 1 year after the
12 date of enactment of this Act, the Secretary, acting
13 through the Administrator, shall—

14 (1) identify all Department of Commerce re-
15 search activities regarding applicable coastal risk re-
16 duction and resilience measures;

17 (2) consult with the heads of other Federal
18 agencies to identify what activities, if any, those
19 Federal agencies are conducting regarding applicable
20 coastal risk reduction and resilience measures;

21 (3) evaluate the effectiveness of the activities
22 identified under paragraphs (1) and (2); and

23 (4) appoint 1 or more officers or employees of
24 the National Oceanic and Atmospheric Administra-
25 tion to liaise with non-Federal entities conducting

1 research related to applicable coastal risk reduction
2 and resilience measures in order to eliminate
3 redundancies, cooperate for common climate re-
4 search goals, and to make research findings readily
5 available to the public.

6 (b) DEFINITION OF APPLICABLE COASTAL RISK RE-
7 Duction AND RESILIENCE MEASURES.—In this section,
8 the term “applicable coastal risk reduction and resilience
9 measures” means natural features, nature-based features,
10 or nonstructural measures.

11 **SEC. 7. GRANTS TO COASTAL STATES FOR ESTABLISHMENT**
12 **OF REVOLVING FUNDS.**

13 (a) CAPITALIZATION GRANTS.—

14 (1) IN GENERAL.—The Secretary, acting
15 through the Administrator, shall award capitaliza-
16 tion grants to each coastal State for the purpose of
17 establishing a community resilience revolving fund
18 under subsection (b) to carry out the activities de-
19 scribed in paragraph (3) of that subsection.

20 (2) SCHEDULE OF GRANT PAYMENTS.—The
21 Administrator shall pay to the coastal State the
22 amount of each grant to be made to the coastal
23 State under paragraph (1) in quarterly installments.

24 (3) AGREEMENTS.—To receive a capitalization
25 grant under paragraph (1), a coastal State shall

1 enter into an agreement with the Administrator
2 that—

3 (A) the coastal State will accept grant pay-
4 ments with funds to be made available under
5 paragraph (1) and will deposit all such pay-
6 ments in the community resilience revolving
7 fund established by the coastal State under sub-
8 section (b);

9 (B) the coastal State will deposit in the
10 fund from State moneys an amount equal to at
11 least 20 percent of the total amount of all cap-
12 italization grants which will be made to the
13 coastal State with funds to be made available
14 under this section on or before the date on
15 which each quarterly grant payment will be
16 made to the coastal State under this paragraph
17 (2) of this subsection;

18 (C) the coastal State will enter into bind-
19 ing commitments to provide assistance in ac-
20 cordance with the requirements of this section
21 in an amount equal to 120 percent of the
22 amount of each such grant payment not later
23 than 1 year after the date of receipt of such
24 grant payment;

1 (D) all funds in the community resilience
2 revolving fund established by the coastal State
3 will be expended in an expeditious and timely
4 manner;

5 (E) in addition to complying with the re-
6 quirements of this section, the coastal State will
7 commit or expend each quarterly grant payment
8 which it will receive under this subsection in ac-
9 cordance with laws and procedures applicable to
10 the commitment or expenditure of revenues of
11 the coastal State;

12 (F) the coastal State will use accounting,
13 audit, and fiscal procedures conforming to gen-
14 erally accepted government accounting stand-
15 ards;

16 (G) the coastal State will require as a con-
17 dition of making a loan or providing other as-
18 sistance from the community resilience revolv-
19 ing fund established by the coastal State that
20 the recipient of such assistance will maintain
21 project accounts in accordance with generally
22 accepted government accounting standards, in-
23 cluding standards relating to the reporting of
24 infrastructure assets;

1 (II) the coastal State will make annual re-
2 ports to the Administrator on the actual use of
3 funds;

4 (I) the coastal State will establish, main-
5 tain, invest, and credit the community resilience
6 revolving fund established by the coastal State
7 with repayments, such that the fund balance
8 will be available in perpetuity for activities
9 under this section;

10 (J) any fees charged by the coastal State
11 to recipients of assistance that are considered
12 program income will be used for the purpose of
13 financing the cost of administering the commu-
14 nity resilience revolving fund established by the
15 coastal State or financing projects or activities
16 eligible for assistance from the community resil-
17 ience revolving fund;

18 (K) the coastal State will require as a con-
19 dition of providing assistance to a municipality
20 or intermunicipal, interstate, or State agency
21 that the recipient of such assistance certify, in
22 a manner determined by the Governor of the
23 coastal State, that the recipient has studied and
24 evaluated the sustainability of the processes,
25 materials, techniques, and technologies for car-

1 rying out the proposed project or activity for
2 which assistance is sought under this section;
3 and

4 (L) a contract to be carried out using
5 funds directly made available by a capitalization
6 grant under this section for program manage-
7 ment, construction management, feasibility
8 studies, preliminary engineering, design, engi-
9 neering, surveying, mapping, or architectural
10 related services shall be negotiated in the same
11 manner as a contract for architectural and en-
12 gineering services is negotiated under chapter
13 11 of title 40, United States Code, or an equiv-
14 alent State qualifications-based requirement (as
15 determined by the Governor of the coastal
16 State).

17 (b) COMMUNITY RESILIENCE REVOLVING FUNDS.—

18 (1) ESTABLISHMENT.—Before a coastal State
19 may receive a capitalization grant with funds made
20 available under subsection (a)(1), the coastal State
21 shall first establish a community resilience revolving
22 fund which complies with the requirements of this
23 section.

24 (2) ADMINISTRATION.—Each coastal State
25 community resilience revolving fund shall be admin-

1 istered by an instrumentality of the coastal State
2 with such powers and limitations as may be required
3 to operate such fund in accordance with the require-
4 ments and objectives of this section.

5 (3) USE OF FUNDS.—The amounts of funds
6 available to each coastal State community resilience
7 revolving fund shall be used only for providing finan-
8 cial assistance to any municipality or intermunicipal,
9 interstate, or State agency—

10 (A) for the completion of a vulnerability
11 assessment;

12 (B) for the protection of natural flood risk
13 mitigation features, including land acquisition
14 from willing sellers;

15 (C) for the construction of natural features
16 or nature-based features, including beach nour-
17 ishment and dune restoration;

18 (D) for the implementation of a regional
19 sediment management program;

20 (E) for the development and implementa-
21 tion of a shoreline conservation and manage-
22 ment plan;

23 (F) for the restoration, repair, or replace-
24 ment of wetlands and living shorelines;

1 (G) for other measures to prevent, man-
2 age, mitigate, or adapt to shoreline erosion,
3 saltwater intrusion, nuisance flooding, sea level
4 rise, and other coastal hazards related to cli-
5 mate change;

6 (II) to carry out nonstructural measures to
7 mitigate flood risk; and

8 (I) to plan, develop, and obtain financing
9 for eligible projects under this subsection, in-
10 cluding planning, design, and associated
11 preconstruction activities.

12 (4) ISSUANCE OF LOANS.—Except as otherwise
13 limited by State law, a community resilience revolv-
14 ing fund of a coastal State under this section may
15 be used only—

16 (A) to make loans, on the condition that—

17 (i) such loans are made at or below
18 market interest rates, including interest
19 free loans, at terms not to exceed the less-
20 er of 30 years and the projected useful life
21 (as determined by the coastal State) of the
22 project to be financed with the proceeds of
23 the loan;

24 (ii) annual principal and interest pay-
25 ments will commence not later than 1 year

1 after the date of completion of any project
2 and all loans will be fully amortized upon
3 the expiration of the term of the loan;

4 (iii) the recipient of a loan will estab-
5 lish a dedicated source of revenue for re-
6 payment of loans; and

7 (iv) the fund will be credited with all
8 payments of principal and interest on all
9 loans;

10 (B) to buy or refinance the debt obligation
11 of municipalities and intermunicipal and inter-
12 state agencies within the coastal State at or
13 below market rates, where such debt obligations
14 were incurred after January 1, 2013;

15 (C) to guarantee, or purchase insurance
16 for, local obligations where such action would
17 improve credit market access or reduce interest
18 rates;

19 (D) as a source of revenue or security for
20 the payment of principal and interest on rev-
21 enue or general obligation bonds issued by the
22 coastal State if the proceeds of the sale of such
23 bonds will be deposited in the community resil-
24 ience revolving fund;

1 (E) to provide loan guarantees for similar
2 revolving funds established by municipalities or
3 intermunicipal agencies;

4 (F) to earn interest on community resil-
5 ience revolving fund accounts; and

6 (G) for the reasonable costs of admin-
7 istering the community resilience revolving fund
8 and conducting activities under this section, ex-
9 cept that such amounts shall not exceed 3 per-
10 cent of all grant awards to such fund under this
11 section, plus the amount of any fees collected
12 by the coastal State for such purpose regardless
13 of the source.

14 (5) SUBSIDIZATION.—

15 (A) IN GENERAL.—In any case in which a
16 coastal State provides assistance to a munici-
17 pality or intermunicipal, interstate, or State
18 agency, the coastal State may provide addi-
19 tional subsidization, including forgiveness of
20 principal and negative interest loans—

21 (i) to benefit a municipality or inter-
22 municipal agency that—

23 (I) meets the affordability cri-
24 teria of the coastal State established
25 under subparagraph (B); or

1 (II) does not meet the afford-
2 ability criteria of the coastal State if
3 the recipient—

4 (aa) seeks additional sub-
5 sidization to benefit individual
6 ratepayers in the residential user
7 rate class;

8 (bb) demonstrates to the
9 coastal State that such rate-
10 payers will experience a signifi-
11 cant hardship from the increase
12 in rates necessary to finance the
13 project or activity for which as-
14 sistance is sought; and

15 (cc) ensures, as part of an
16 assistance agreement between the
17 coastal State and the recipient,
18 that the additional subsidization
19 provided under this paragraph is
20 directed through a user charge
21 rate system (or other appropriate
22 method) to such ratepayers; or

23 (ii) to implement a process, material,
24 technique, or technology—

25 (I) to address resilience goals; or

1 (II) to encourage sustainable
2 project planning, design, and con-
3 struction.

4 (B) AFFORDABILITY CRITERIA.—

5 (i) IN GENERAL.—Not later than Jan-
6 uary 1, 2020, and after providing notice
7 and an opportunity for public comment, a
8 coastal State shall establish affordability
9 criteria to assist in identifying municipali-
10 ties that would experience a significant
11 hardship raising the revenue necessary to
12 finance a project or activity eligible for as-
13 sistance under paragraph (3) if additional
14 subsidization is not provided.

15 (ii) BASIS OF CRITERIA.—The criteria
16 under clause (i) shall be based on income
17 and unemployment data, population
18 trends, and other data determined relevant
19 by the coastal State, including whether the
20 project or activity is to be carried out in an
21 economically distressed area, as described
22 in section 301 of the Public Works and
23 Economic Development Act of 1965 (42
24 U.S.C. 3161).

25 (C) ADDITIONAL SUBSIDIZATION.—

1 (i) IN GENERAL.—A coastal State
2 may provide additional subsidization in a
3 fiscal year under this paragraph only if the
4 total amount appropriated for making cap-
5 italization grants to all coastal States
6 under this section for the fiscal year ex-
7 ceeds \$500,000,000.

8 (ii) LIMITATION.—Except as provided
9 in clause (iii), a coastal State may use not
10 more than 30 percent of the total amount
11 received by the coastal State in capitaliza-
12 tion grants under subsection (b) for a fis-
13 cal year for providing additional subsidiza-
14 tion under this paragraph.

15 (iii) EXCEPTION.—If, in a fiscal year,
16 the amount appropriated for making cap-
17 italization grants to all coastal States
18 under this section exceeds \$500,000,000
19 by a percentage that is less than 30 per-
20 cent, clause (ii) shall be applied by sub-
21 stituting that percentage for 30 percent.

22 (e) COMPLIANCE.—

23 (1) IN GENERAL.—If the Administrator deter-
24 mines that a coastal State has not complied with its
25 agreement with the Administrator under subsection

1 (a)(3) or any other requirement of this section, the
2 Administrator shall notify the coastal State of such
3 noncompliance and the necessary corrective action.

4 (2) WITHHOLDING PAYMENTS.—If a coastal
5 State does not take corrective action within 60 days
6 after the date the coastal State receives notification
7 of such action under paragraph (1), the Adminis-
8 trator shall withhold additional payments to the
9 coastal State until the Administrator is satisfied
10 that the coastal State has taken the necessary cor-
11 rective action.

12 (3) REALLOTMENT OF PAYMENTS.—If the Ad-
13 ministrator is not satisfied that adequate corrective
14 actions have been taken by the coastal State not
15 later than 12 months after the coastal State is noti-
16 fied of such actions under paragraph (1), the pay-
17 ments withheld from the coastal State by the Ad-
18 ministrator under paragraph (2) shall be made avail-
19 able for reallocation in accordance with the most re-
20 cent formula for allotment of funds under this sec-
21 tion.

22 (d) FISCAL CONTROL AND AUDITING PROCEDURE-
23 S.—Each coastal State electing to establish a com-
24 munity resilience revolving fund under this section shall
25 establish fiscal controls and accounting procedures suffi-

1 cient to assure proper accounting during appropriate ac-
2 counting periods for—

3 (1) payments received by the fund;

4 (2) disbursements made by the fund; and

5 (3) fund balances at the beginning and end of
6 the accounting period.

7 (e) ANNUAL FEDERAL AUDITS.—Not less frequently
8 than once each year, the Administrator shall conduct or
9 require each coastal State to have independently con-
10 ducted reviews and audits as may be deemed necessary
11 or appropriate by the Administrator to carry out the objec-
12 tives of this section. Audits of the use of funds deposited
13 in the community resilience revolving fund established by
14 such coastal State shall be conducted in accordance with
15 the auditing procedures of the Government Accountability
16 Office, including chapter 75 of title 31, United States
17 Code.

18 (f) INTENDED USE PLAN.—After providing for pub-
19 lic comment and review, each coastal State shall annually
20 prepare a plan identifying the intended uses of the
21 amounts available to its community resilience revolving
22 fund. Such intended use plan shall include—

23 (1) a list of those projects for construction;

1 (2) a description of the short- and long-term
2 goals and objectives of its community resilience re-
3 volving fund;

4 (3) information on the activities to be sup-
5 ported, terms of financial assistance, and commu-
6 nities served; and

7 (4) the criteria and method established for the
8 distribution of funds.

9 (g) ANNUAL REPORT.—Beginning the first fiscal
10 year after the receipt of payments under this section and
11 not less frequently than once each fiscal year thereafter,
12 each coastal State shall provide a report to the Adminis-
13 trator describing how the coastal State has met the goals
14 and objectives for the previous fiscal year as identified in
15 the plan prepared for the previous fiscal year pursuant
16 to subsection (f).

17 (h) ANNUAL FEDERAL OVERSIGHT REVIEW.—

18 (1) IN GENERAL.—Not less frequently than
19 once each year, the Administrator shall conduct an
20 oversight review of each coastal State plan prepared
21 under subsection (f), each coastal State report pre-
22 pared under subsection (g), and other such materials
23 as are considered necessary and appropriate in car-
24 rying out the purposes of this section.

1 (2) AVAILABILITY OF RECORDS.—After reason-
2 able notice by the Administrator to the coastal State
3 or the recipient of a loan from a community resil-
4 ience revolving fund, the coastal State or loan recipi-
5 ent shall make available to the Administrator such
6 records as the Administrator reasonably requires to
7 review and determine compliance with this section.