

110TH CONGRESS
1ST SESSION

S. 2355

To amend the National Climate Program Act to enhance the ability of the United States to develop and implement climate change adaptation programs and policies, and for other purposes.

IN THE SENATE OF THE UNITED STATES

NOVEMBER 14, 2007

Ms. CANTWELL introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

A BILL

To amend the National Climate Program Act to enhance the ability of the United States to develop and implement climate change adaptation programs and policies, 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 “Climate Change Adap-
5 tation Act”.

1 **SEC. 2. AMENDMENT OF NATIONAL CLIMATE PROGRAM**
2 **ACT.**

3 Except as otherwise expressly provided, whenever in
4 this title an amendment or repeal is expressed in terms
5 of an amendment to, or repeal of, a section or other provi-
6 sion, the reference shall be considered to be made to a
7 section or other provision of the National Climate Pro-
8 gram Act (15 U.S.C. 2901 et seq.).

9 **SEC. 3. FINDINGS.**

10 Section 2 (15 U.S.C. 2601) is amended to read as
11 follows:

12 **“SEC. 2. FINDINGS.**

13 “The Congress finds that—

14 “(1) weather, climate change, and climate vari-
15 ability affect public safety, environmental services
16 and security, human health, agriculture, energy use,
17 water resources, and other factors vital to national
18 security and human welfare;

19 “(2) the present rate of advance of national ef-
20 forts in research and development and the applica-
21 tion of such advances is inadequate to meet the chal-
22 lenges posed by observed and projected rates of cli-
23 mate change and climate variability and the increas-
24 ing demand for information to guide planning and
25 response across all sectors;

1 “(3) the United States lacks adequate research,
2 infrastructure, and coordinated outreach and com-
3 munication mechanisms to meet national climate
4 monitoring, prediction, and decision support needs
5 for adapting to and mitigating the impacts of cli-
6 mate change and climate variability;

7 “(4) information regarding climate change and
8 climate variability is not being fully disseminated or
9 used, and Federal efforts have given insufficient at-
10 tention to assessing and applying this information;

11 “(5) climate change and climate variability
12 occur on a global basis making international co-
13 operation essential for the purpose of sharing the
14 benefits and costs of a global effort to understand
15 and communicate these changes;

16 “(6) recent scientific reports by the Intergov-
17 ernmental Panel on Climate Change conclusively
18 found that climate change is occurring, and that im-
19 pacts from climate change can be expected in even
20 shorter time periods than had been previously pre-
21 dicted;

22 “(7) the Panel found that the resilience of
23 many ecosystems is likely to be exceeded this cen-
24 tury by an unprecedented combination of climate
25 change, associated disturbances such as flooding and

1 drought, and other global change drivers such as
2 land-use change;

3 “(8) according to the Panel, approximately 20
4 to 30 percent of plant and animal species assessed
5 so far are likely to be at increased risk of extinction
6 if increases in global average temperature exceed 1.5
7 to 2.5 degrees Celsius;

8 “(9) the Panel also found that the progressive
9 acidification of oceans due to increasing atmospheric
10 carbon dioxide is expected to have negative impacts
11 on marine shell-forming organisms, such as corals,
12 and their dependent species;

13 “(10) the Panel found that coasts will be ex-
14 posed to increasing risks, including coastal erosion,
15 over coming decades due to climate change and sea-
16 level rise, and that adaptation costs for vulnerable
17 coasts are much less than the costs of inaction;

18 “(11) in its September, 2007, study entitled
19 Evaluating Progress of the U.S. Climate Change
20 Science Program: Methods and Preliminary Results,
21 the National Academy of Sciences concluded that
22 there is a tremendous need to improve the delivery
23 of information to decision makers at the Federal, re-
24 gional, and local levels on climate change impacts

1 and to take such impacts into account in planning
2 and in managing resources;

3 “(12) States and local communities may need
4 Federal assistance in developing and implementing
5 strategies to address the impacts of climate change;

6 “(13) in its August, 2007, report entitled Cli-
7 mate Change: Agencies Should Develop Guidance for
8 Addressing the Effects on Federal Land and Water
9 Resources, GAO-07-863, the Government Account-
10 ability Office found that the Federal Government is
11 not providing the National Oceanic and Atmospheric
12 Administration and other Federal agencies that are
13 responsible for managing natural resources with the
14 proper tools or policy mandates to take the impacts
15 of climate change into account in carrying out their
16 responsibilities to manage public resources;

17 “(14) the National Oceanic and Atmospheric
18 Administration, which plays a leading role in the
19 Federal Government’s Global Change Research Pro-
20 gram, has a key role to play both in predicting im-
21 pacts of climate change on natural resources and in
22 improving the delivery of information critical to ad-
23 aptation and management to end users; and

24 “(15) the National Oceanic and Atmospheric
25 Administration has a key role to play in addressing

1 the impacts of climate change on our Nation’s coast-
2 al areas and ocean resources.”.

3 **SEC. 4. DEFINITIONS.**

4 Section 4 (15 U.S.C. 2903) is amended by striking
5 paragraphs (1) and (2) and redesignating paragraphs (3)
6 and (4) as paragraphs (1) and (2).

7 **SEC. 5. NATIONAL CLIMATE PROGRAM ELEMENTS.**

8 Section 5 (15 U.S.C. 2904) is amended—

9 (1) by striking “subsection (d)(9);” in sub-
10 section (b)(1) and inserting “section 6;”;

11 (2) by striking subsections (c), (e), (f), and (g);
12 and

13 (3) by striking subsection (d) and inserting the
14 following:

15 “(c) PROGRAM ELEMENTS.—

16 “(1) IN GENERAL.—The Program shall in-
17 clude—

18 “(1) a strategic plan to address the impacts of
19 climate change within the United States; and

20 “(2) a National Climate Service to be estab-
21 lished within the National Oceanic and Atmospheric
22 Administration.”.

23 **SEC. 6. NATIONAL CLIMATE STRATEGY.**

24 The Act is amended by striking sections 6 through
25 9 (15 U.S.C. 2905 et seq.) and inserting the following:

1 **“SEC. 6. NATIONAL STRATEGIC PLAN FOR CLIMATE**
2 **CHANGE ADAPTATION.**

3 “(a) IN GENERAL.—Not later than 2 years after the
4 date of enactment of the Climate Change Adaptation Act,
5 the President shall provide to the Congress a 5-year na-
6 tional strategic plan to address the impacts of climate
7 change within the United States, to implement such strat-
8 egy for federally-managed resources and actions, and to
9 provide information to and coordinate with State and local
10 governments and nongovernmental entities to support
11 similar efforts with respect to non-Federal natural re-
12 sources. The President shall provide a mechanism for con-
13 sulting with States and local governments, the private sec-
14 tor, universities, and other nongovernmental entities in de-
15 veloping the plan. The plan shall be updated at least every
16 5 years.

17 “(b) CONTENTS OF PLAN.—The plan shall, at a min-
18 imum—

19 “(1) identify existing Federal requirements,
20 protocols, and capabilities for addressing climate
21 change impacts on federally managed resources and
22 actions;

23 “(2) identify measures to improve such capabili-
24 ties and the utilization of such capabilities;

1 “(3) include protocols to integrate climate
2 change impacts into Federal agency actions and
3 policies, consistent with existing authorities;

4 “(4) address vulnerabilities and priorities iden-
5 tified through the assessments carried out under the
6 Global Change Research Act of 1990 and this Act;

7 “(5) establish a mechanism for the exchange of
8 information related to addressing the impacts of cli-
9 mate change with, and provide technical assistance
10 to, State and local governments and nongovern-
11 mental entities;

12 “(6) develop partnerships with State and local
13 governments and nongovernmental entities to sup-
14 port and coordinate implementation of the plan;

15 “(7) include implementation and funding strate-
16 gies for short-term and long-term actions that may
17 be taken at the national, regional, State, and local
18 level;

19 “(8) establish a process to develop more de-
20 tailed agency and department-specific plans;

21 “(9) identify opportunities to utilize remote
22 sensing and other geospatial technologies to improve
23 planning for adaptation to climate change impacts;
24 and

1 “(10) identify existing legal authorities and ad-
2 ditional authorities necessary to implement the plan.

3 “(c) AGENCY-LEVEL STRATEGIES.—

4 “(1) AGENCY PLANS.—Each department and
5 agency of the Executive Branch shall develop a de-
6 tailed plan, based on the national plan, for address-
7 ing climate change impacts with respect to such de-
8 partment or agencies policies and actions, within 1
9 year after the date that the plan is submitted under
10 subsection (b) and provide such plan to Congress.

11 “(2) INTERIM ACTIVITIES.—Nothing in this
12 section shall be understood to prevent any Federal
13 agency or department to take climate change im-
14 pacts into account, consistent with its existing au-
15 thorities, until the plans are provided to Congress
16 and steps to implement such plans are taken.

17 “(d) COORDINATION.—The President shall ensure
18 that the mechanism to provide information related to ad-
19 dressing the impacts of climate change to State and local
20 governments and nongovernmental entities is appro-
21 priately coordinated or integrated with existing programs
22 that provide similar information on climate change pre-
23 dictions.

24 “(e) RELATIONSHIP TO OTHER AUTHORITIES.—
25 Nothing in this section shall supersede any Federal au-

1 thority in effect on the date of enactment of the Climate
2 Change Adaptation Act.

3 “(f) AUTHORIZATION OF APPROPRIATIONS.—There
4 are authorized to be appropriated for each of fiscal years
5 2009 through 2013 \$10,000,000 to carry out this section.

6 **“SEC. 7. OCEAN AND COASTAL VULNERABILITY AND ADAP-**
7 **TATION.**

8 “(a) COASTAL AND OCEAN VULNERABILITY.—

9 “(1) IN GENERAL.—Within 2 years after the
10 date of enactment of the Climate Change Adaptation
11 Act, the Secretary of Commerce shall, in consulta-
12 tion with the appropriate Federal, State, and local
13 governmental entities, conduct regional assessments
14 of the vulnerability of coastal and ocean areas and
15 resources to hazards associated with climate change,
16 climate variability, and ocean acidification includ-
17 ing—

18 “(A) sea level rise;

19 “(B) fluctuation of Great Lakes water lev-
20 els;

21 “(C) increases in severe weather events;

22 “(D) storm surge;

23 “(E) rainfall;

24 “(F) flooding and inundation;

25 “(G) changes in sea ice;

1 “(H) changes in ocean currents impacting
2 global heat transfer;

3 “(I) increased siltation due to coastal ero-
4 sion;

5 “(J) shifts in the hydrological cycle;

6 “(K) natural hazards, including tsunami,
7 drought, flood, and fire;

8 “(L) coral reef bleaching; and

9 “(M) alteration of ecological communities,
10 including at the ecosystem or watershed levels,

11 “(2) UPDATES.—The Secretary shall update
12 such assessments at least once every 5 years.

13 “(3) REGIONAL COASTAL AND OCEAN ASSESS-
14 MENTS.—In preparing the regional coastal assess-
15 ments, the Secretary shall take into account the in-
16 formation and assessments being developed pursuant
17 to the Global Change Research Program. The re-
18 gional assessments shall include an evaluation of—

19 “(A) physical, biological, and ecological im-
20 pacts, such as coastal erosion, flooding and loss
21 of estuarine habitat, saltwater intrusion of
22 aquifers and saltwater encroachment, impacts
23 on food web distribution, species migration, spe-
24 cies abundance, and changes in marine patho-
25 gens and diseases;

1 “(B) social impacts associated with threats
2 to and potential losses of housing, communities,
3 and infrastructure; and

4 “(C) economic impacts on local, State, and
5 regional economies, including the impact on
6 abundance or distribution of economically im-
7 portant living marine resources.

8 “(b) COASTAL AND OCEAN ADAPTATION PLAN.—The
9 Secretary shall, within 3 years after the date of enactment
10 of the Climate Change Adaptation Act, submit to the Con-
11 gress a national coastal and ocean adaptation plan, com-
12 posed of individual regional adaptation plans that rec-
13 ommend targets and strategies to address coastal and
14 ocean impacts associated with climate change, ocean acidi-
15 fication, sea level rise, and climate variability. The plan
16 shall be developed with the participation of other Federal,
17 State, and local government agencies that will be critical
18 in the implementation of the plan at the State and local
19 levels and shall take into account recommendations of the
20 National Science Board in its January 12, 2007, report
21 entitled Hurricane Warning: The Critical Need for a Na-
22 tional Hurricane Research Initiative and other relevant
23 studies, and not duplicate existing Federal and State haz-
24 ard planning requirements. The Plan shall recommend

1 both short- and long-term adaptation strategies and shall
2 include recommendations regarding—

3 “(1) Federal flood insurance program modifica-
4 tions;

5 “(2) areas that have been identified as high risk
6 through mapping and assessment;

7 “(3) mitigation incentives such as rolling ease-
8 ments, strategic retreat, State or Federal acquisition
9 in fee simple or other interest in land, construction
10 standards, and zoning;

11 “(4) land and property owner education;

12 “(5) economic planning for small communities
13 dependent upon affected coastal and ocean re-
14 sources, including fisheries;

15 “(6) coastal hazards protocols to reduce the
16 risk of damage to lives and property, and a process
17 for evaluating the implementation of such protocols;

18 “(7) strategies to address impacts on the most
19 vulnerable living marine resources;

20 “(8) proposals to integrate measures into the
21 actions and policies of the National Oceanic and At-
22 mospheric Administration;

23 “(9) a plan for additional research and develop-
24 ment of technologies and capabilities to address such
25 impacts;

1 “(10) plans to pursue bilateral and multilateral
2 agreements necessary to effectively address such im-
3 pacts;

4 “(11) partnerships with States and nongovern-
5 mental organizations;

6 “(12) methods to mitigate the impacts identi-
7 fied, including habitat restoration measures; and

8 “(13) funding requirements and mechanisms.

9 “(c) TECHNICAL PLANNING ASSISTANCE.—The Sec-
10 retary, through the National Oceanic and Atmospheric
11 Administration, shall establish a coordinated program to
12 provide technical planning assistance and products to
13 coastal States and local governments as they develop and
14 implement adaptation or mitigation strategies and plans.
15 Products, information, tools and technical expertise gen-
16 erated from the development of the regional coastal and
17 ocean assessments and the coastal and ocean adaptation
18 plans will be made available to coastal States for the pur-
19 poses of developing their own State and local plans.

20 “(d) COASTAL AND OCEAN ADAPTATION GRANTS.—

21 “(1) IN GENERAL.—The Secretary shall provide
22 grants of financial assistance to coastal States with
23 federally approved coastal zone management pro-
24 grams to develop and begin implementing coastal
25 and ocean adaptation programs.

1 “(2) ALLOCATION OF FUNDS.—The Secretary
2 shall distribute grant funds under paragraph (1)
3 among coastal States in accordance with the formula
4 established under section 306(c) of the Coastal Zone
5 Management Act of 1972 (16 U.S.C. 1455(c)), ad-
6 justed in consultation with the States as necessary
7 to provide assistance to particularly vulnerable
8 coastlines.

9 “(3) MATCHING REQUIREMENT.—The Sec-
10 retary shall make grants under paragraph (1) on a
11 matching basis under which the ratio of Federal to
12 State funds is—

13 “(A) 4 to 1 in the first fiscal year;

14 “(B) 2.3 to 1 in the second fiscal year;

15 “(C) 2 to 1 in the third fiscal year; and

16 “(D) 1 to 1 thereafter.

17 (e) AUTHORIZATION OF APPROPRIATIONS.—There
18 are authorized to be appropriated to the Under Secretary
19 of Commerce for Oceans and Atmosphere \$35,000,000 for
20 each of fiscal years 2009 through 2013 to carry out the
21 provisions of this section, of which \$25,000,000 shall be
22 available for grants under subsection (d) for each of such
23 fiscal years. Not more than 75 percent of the amount

1 available for grants under subsection (d) for any fiscal
2 year may be used for grants relating to coastal impacts.”.

○