117TH CONGRESS
1ST SESSION

S. _____

To establish the Interagency Working Group on Coastal Blue Carbon, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Ms. MURKOWSKI (for herself and Mr. WHITEHOUSE) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To establish the Interagency Working Group on Coastal Blue Carbon, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Blue Carbon for Our Planet Act''.

SEC. 2. DEFINITIONS.

In this Act:

(1) ADMINISTRATOR.—The term ''Administrator'' means the Under Secretary of Commerce for Oceans and Atmosphere in the Under Secretary's

capacity as the Administrator of the National Oceanic and Atmospheric Administration.

(2) COASTAL BLUE CARBON ECOSYSTEMS.—

(A) IN GENERAL.—The term ''coastal blue carbon ecosystems'' means vegetated coastal habitats, including mangroves, tidal marshes, seagrasses, kelp forests, and other tidal, freshwater, or salt-water wetlands, that have the ability to sequester carbon from the atmosphere, accumulate carbon in biomass for years to decades, and store carbon in soils for centuries to millennia.

(B) INCLUSIONS.—The term ''coastal blue carbon ecosystems'' includes autochthonous carbon and allochthonous carbon.

(3) COASTAL CARBON DATA CLEARINGHOUSE.—The term ''Coastal Carbon Data Clearinghouse'' means the Coastal Carbon Data Clearinghouse operated by the Smithsonian Environmental Research Center.

(4) INTERAGENCY WORKING GROUP.—The term ''Interagency Working Group'' means the Interagency Working Group on Coastal Blue Carbon established under section 3(a).

(5) STATE.—The term ''State'' means each State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, American Samoa, Guam, the Commonwealth of the Northern Mariana Islands, the Virgin Islands of the United States, and any other territory or possession of the United States.

SEC. 3. INTERAGENCY WORKING GROUP ON COASTAL BLUE CARBON.

(a) ESTABLISHMENT.—The Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall establish an interagency working group, to be known as the ''Interagency Working Group on Coastal Blue Carbon''.

(b) MEMBERSHIP.—The Interagency Working Group shall be comprised of senior representatives from—

(1) the National Oceanic and Atmospheric Administration;

(2) the Environmental Protection Agency;

(3) the National Science Foundation;

(4) the National Aeronautics and Space Administration;

(5) the United States Geological Survey;

(6) the United States Fish and Wildlife Service;

(7) the National Park Service;

(8) the Bureau of Indian Affairs;

(9) the Smithsonian Institution;

(10) the Army Corps of Engineers;

(11) the Department of Agriculture;

(12) the Department of Energy;

(13) the Department of Defense;

(14) the Department of State;

(15) the Department of Transportation;

(16) the Federal Emergency Management Agency; and

(17) the Council on Environmental Quality.

(c) CHAIRPERSON.—The Interagency Working Group shall be chaired by the Administrator.

(d) RESPONSIBILITIES.—The Interagency Working Group shall—

(1) oversee the development, updates, and maintenance of a national map and inventory of coastal blue carbon ecosystems, including habitat types, with a regional focus in analysis that is usable for local-level conservation, planning, and restoration;

(2) develop a strategic assessment of the biophysical, chemical, social, statutory, regulatory, and economic impediments to conservation and restoration of coastal blue carbon ecosystems, including the

vulnerability of coastal blue carbon ecosystems to climate impacts, such as sea-level rise and ocean and coastal acidification, and other environmental and human stressors;

(3) develop a national strategy for foundational science necessary to study, synthesize, and evaluate the effects of climate change and environmental and human stressors on sequestration rates and capabilities of coastal blue carbon ecosystems conservation, with input from the National Academies of Sciences, Engineering, and Medicine;

(4) establish national conservation and restoration priorities for coastal blue carbon ecosystems, including an assessment of Federal funding being used for conservation and restoration efforts;

(5) ensure the continuity, use, and interoperability of data assets, including data assets available through the Coastal Carbon Data Clearinghouse; and

(6) assess legal authorities in effect as of the date of the enactment of this Act to conserve and restore coastal blue carbon ecosystems.

(e) SUBMISSIONS TO CONGRESS.—

(1) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Interagency

Working Group shall submit to the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Natural Resources of the House of Representatives a report containing the following:

(A) A summary of federally funded research, monitoring, conservation, and restoration activities relating to coastal blue carbon ecosystems, including—

(i) the budget for each such activity; and

(ii) a description of the progress made by each such activity in advancing the national priorities identified under section 5(a)(3)(A).

(B) An assessment of biophysical, chemical, social, statutory, regulatory, and economic impediments to conservation and restoration of coastal blue carbon ecosystems, including the vulnerability of coastal blue carbon ecosystems to climate impacts, such as sea-level rise and ocean and coastal acidification, and other environmental and human stressors.

(2) STRATEGIC PLAN.—

(A) IN GENERAL.—The Interagency Working Group shall create a strategic plan for Federal investments in basic research, development, demonstration, long-term monitoring and stewardship, and deployment of coastal blue carbon ecosystem projects for the 5-year period beginning on the date on which the first fiscal year after the date on which the report is submitted under paragraph (1) begins.

(B) ELEMENTS.—The plan required by subparagraph (A) shall—

(i) include an assessment of the use of Federal programs existing as of the date of the enactment of this Act to conserve and restore coastal blue carbon ecosystems; and

(ii) identify any additional authorities or programs that may be needed to conserve and restore such ecosystems.

(C) TIMING.—The Interagency Working Group shall—

(i) on a date that is not later than 1 year after the date of the enactment of this Act and not earlier than the date on which the report required by paragraph (1) is submitted, submit to the Committee on

Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Natural Resources of the House of Representatives the strategic plan required by subparagraph (A); and

(ii) submit a revised version of such plan not less frequently than once every 5 years thereafter.

(D) PUBLICATION AND PUBLIC COMMENT.—Not later than 90 days before the date on which the strategic plan or any revised version of such plan is submitted under subparagraph (C), the Interagency Working Group shall—

(i) publish such plan in the Federal Register; and

(ii) provide an opportunity for submission of public comments for a period of not less than 60 days.

SEC. 4. NATIONAL MAP AND INVENTORY OF COASTAL BLUE CARBON ECOSYSTEMS.

(a) IN GENERAL.—The Interagency Working Group shall produce, update, and maintain a national-level map

and inventory of coastal blue carbon ecosystems, including—

(1) the types of habitats and species in such ecosystems;

(2) the condition of such habitats, including whether a habitat is degraded, drained, eutrophic, or tidally restricted;

(3) the type of public or private ownership and any protected status of such ecosystems;

(4) the size of such ecosystems;

(5) the salinity boundaries of such ecosystems;

(6) the tidal boundaries of such ecosystems;

(7) an assessment of carbon sequestration potential, methane production, and net greenhouse gas reductions with respect to such ecosystems, including consideration of—

(A) quantification;

(B) verifiability;

(C) comparison to a historical baseline as available; and

(D) permanence of those benefits;

(8) an assessment of co-benefits of ecosystem and carbon sequestration;

(9) the potential for landward migration as a result of sea level rise;

(10) any upstream restrictions detrimental to the watershed process and conditions such as dams, dikes, levees, and other water management practices;

(11) the conversion of such ecosystems to other land uses and the cause of such conversion; and

(12) a depiction of the effects of climate change, including sea level rise, environmental stressors, and human stressors on the sequestration rate, carbon storage, and potential of such ecosystems.

(b) DATA INCORPORATION; ENGAGEMENT.—In carrying out subsection (a), the Administrator shall—

(1) incorporate, to the extent practicable, existing data, as determined on the date of enactment of this Act, collected through federally funded research by a Federal agency, State agency, Tribe, or local agency and peer-reviewed published works, including data collected from—

(A) the Coastal Change Analysis Program of the National Oceanic and Atmospheric Administration;

(B) the National Wetlands Inventory of the United States Fish and Wildlife Service;

(C) the LandCarbon program of the United States Geological Survey;

(D) the LiDAR information coordination and knowledge program of the Federal Emergency Management Agency;

(E) the Biological and Environmental Research Program of the Department of Energy; and

(F) the National Coastal Blue Carbon Assessment of the Department of Agriculture; and

(2) engage regional experts, State agencies, Tribes, and additional data and information resources in order to accurately account for regional differences in coastal blue carbon ecosystems.

(c) USE OF MAP AND INVENTORY.—The Interagency Working Group shall use the national map and inventory produced under subsection (a)—

(1) to assess the carbon sequestration potential of different coastal blue carbon ecosystems and account for any regional differences;

(2) to assess and quantify emissions from degraded and destroyed coastal blue carbon ecosystems;

(3) to develop regional assessments in partnership with, or to provide technical assistance to—

(A) regional, State, Tribal, and local government agencies; and

(B) regional information coordination entities (as defined in section 12303(6) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3602));

(4) to assess degraded coastal blue carbon ecosystems and the potential for restoration of such ecosystems, including developing scenario modeling to identify vulnerable land areas and living shorelines where management, conservation, and restoration efforts should be focused;

(5) to produce predictions relating to coastal blue carbon ecosystems and carbon sequestration rates in the context of climate change, environmental stressors, and human stressors; and

(6) to inform the creation by the Administrator of the Environmental Protection Agency of the annual Inventory of U.S. Greenhouse Gas Emissions and Sinks.

SEC. 5. RESTORATION AND CONSERVATION OF EXISTING COASTAL BLUE CARBON ECOSYSTEMS.

(a) IN GENERAL.—The Administrator shall—

(1) lead the Interagency Working Group in implementing the strategic plan under section 3(e)(2);

(2) coordinate monitoring and research efforts among Federal agencies in cooperation with State,

Tribal, and local governments, academic institutions, international partners, and nongovernmental organizations;

(3) in coordination with the Interagency Working Group, and as informed by the report under section 3(e)(1), identify—

(A) national conservation and restoration priorities for coastal blue carbon ecosystems that would produce the highest rate of carbon sequestration and greatest ecosystem benefits, such as flood protection, soil and beach retention, erosion reduction, biodiversity, water purification, and nutrient cycling, in the context of other environmental stressors and climate change; and

(B) ways to improve coordination and to prevent unnecessary duplication of effort among Federal agencies and departments with respect to research on coastal blue carbon ecosystems through existing and new coastal management networks; and

(4) in coordination with State, Tribal, and local governments and coastal stakeholders, develop integrated pilot programs to restore degraded coastal

blue carbon ecosystems in accordance with subsection (b).

(b) INTEGRATED FEDERAL PILOT PROGRAMS TO RESTORE DEGRADED COASTAL BLUE CARBON ECOSYSTEMS.—

(1) IN GENERAL.—In carrying out subsection (a)(4), the Administrator shall establish 1 or more integrated Federal pilot programs that—

(A) further develop—

(i) best management practices, including design criteria and performance functions for restoration of coastal blue carbon ecosystems;

(ii) nature-based adaptation strategies;

(iii) restoration areas that intersect with built environments as green-gray infrastructure projects;

(iv) management practices for landward progression, migration, or loss of coastal blue carbon ecosystems;

(v) best management practices to account for latitudinal biogeographic factors; and

(vi) best management practices for restoration of—

(I) hypersaline coastal ecosystems; and

(II) estuarine ecosystems; and

(B) identify potential barriers to restoration management efforts.

(2) LOCATIONS.—The Administrator shall ensure that pilot programs under paragraph (1) cover geographically, socioeconomically, and ecologically diverse locations with—

(A) significant ecological, economic, and social benefits, such as flood protection, soil and beach retention, erosion reduction, biodiversity, water purification, and nutrient cycling to reduce hypoxic conditions; and

(B) maximum potential for greenhouse gas emission reduction, taking into account—

(i) quantification;

(ii) verifiability;

(iii) additionality, as compared to an appropriate historical baseline determined by the Interagency Working Group; and

(iv) permanence of those benefits.

(3) APPLICATION REVIEW.—The Administrator shall—

(A) establish a procedure for reviewing applications for pilot programs under paragraph (1);

(B) encourage applications from minority serving institutions; and

(C) consider proposals from institutions that may not have adequate resources.

(4) COMMUNICATION.—The Administrator shall ensure, through consultation with the Interagency Working Group, that the goals and metrics for pilot programs under paragraph (1) are communicated to the appropriate State, local, and Tribal governments, coastal stakeholders, non-Federal resource managers, academia, and the general public.

(5) COORDINATION.—The Administrator shall coordinate with—

(A) relevant Federal agencies and departments specified under section 3(b) to prevent unnecessary duplication of effort among such agencies and departments with respect to restoration programs; and

(B) relevant State, Tribal, and local government entities.

(6) PRIORITY.—In carrying out pilot programs under paragraph (1), the Administrator shall give priority to proposed eligible restoration activities that would—

(A) result in long-term sequestration of carbon stored in coastal and marine environments;

(B) conserve key habitats for fish, wildlife, and the maintenance of biodiversity;

(C) provide coastal protection from storms, flooding, and land-based pollution;

(D) restore optimal salinities and chlorophyll levels in estuarine and coastal environments or lead to other improvements to water quality; and

(E) conserve coastal resources of national, historical, and cultural significance.

(7) NON-FEDERAL COST SHARE.—The Administrator may accept, but shall not give priority to, offers to share the cost of a project under a pilot program under paragraph (1) from State, Tribal, local, and nongovernmental applicants.

(8) REQUIREMENT.—Any project performed under a pilot program under paragraph (1) shall be

conducted within the territorial boundaries of the United States.

SEC. 6. COASTAL CARBON DATA CLEARINGHOUSE.

(a) DEFINITION OF SECRETARY.—In this section, the term ''Secretary'' means the Secretary of the Smithsonian Institution.

(b) IN GENERAL.—The Secretary, in coordination with the Administrator and members of the Interagency Working Group, shall provide for the long-term stewardship of, and access to, data relating to coastal blue carbon ecosystems and national mapping, by supporting the maintenance of the Coastal Carbon Data Clearinghouse.

(c) COASTAL CARBON DATA CLEARINGHOUSE DUTIES.—The Secretary, in coordination with the Administrator and members of the Interagency Working Group, shall, through the Coastal Carbon Data Clearinghouse, process, store, archive, provide access to, and incorporate (to the extent practicable) all data relating to coastal carbon collected through federally funded research by a Federal agency, State, Tribe, or local agency, an academic institution, or another relevant entity.

(d) GLOBAL AND NATIONAL DATA ASSETS.—The Secretary, in coordination with the Administrator and members of the Interagency Working Group, shall ensure that existing global and national data assets, as deter-

mined on the date of enactment of this Act, are incorporated into the Coastal Carbon Data Clearinghouse, to the greatest extent practicable.

(e) ESTABLISHMENT OF STANDARDS, PROTOCOLS, AND PROCEDURE.—The Secretary, in coordination with the Administrator and members of the Interagency Working Group, shall establish—

(1) standards, protocols, and procedures for the processing, storing, and archiving of, and providing access to, data in the Coastal Carbon Data Clearinghouse; and

(2) best practices for sharing such data with State, local, and Tribal governments, coastal stakeholders, non-Federal resource managers, and academia.

(f) DISSEMINATION; DIGITAL TOOLS AND RESOURCES.—

(1) DISSEMINATION.—The Administrator shall work to disseminate the data available through the Coastal Carbon Data Clearinghouse to the greatest extent practicable.

(2) DIGITAL TOOLS AND RESOURCES.—The Secretary, in coordination with the Administrator and members of the Interagency Working Group, shall develop digital tools and resources to support

the public use of the Coastal Carbon Data Clearinghouse.

SEC. 7. NATIONAL ACADEMY OF SCIENCES ASSESSMENTS OF CARBON DIOXIDE STORAGE IN DEEP SEAFLOOR ENVIRONMENTS AND OF COASTAL CARBON MARKETS.

Not later than 90 days after the date of the enactment of this Act, the Administrator shall seek to enter into an agreement with the National Academy of Sciences to conduct—

(1) a comprehensive assessment of—

(A) the long-term effects of containment of carbon dioxide in a deep seafloor environment on marine ecosystems;

(B) the socioeconomic effects of such containment on existing ocean users and communities; and

(C) the integrity of existing storage technologies, as determined on the date of enactment of this Act;

(2) a comprehensive assessment of pathways, methods, and technologies able to directly remove carbon dioxide from the oceans by the removal of dissolved carbon dioxide from seawater through engineered or inorganic processes, including filters,

membranes, phase change systems, or other technological pathways; and

(3) a comprehensive assessment of the viability of using coastal macroalgae cultivation and sustainable coastal wetlands management and restoration for carbon sequestration, which shall consider—

(A) environmental and socioeconomic effects on coastal communities;

(B) durability and cost per ton of carbon dioxide sequestered using coastal macroalgae cultivation and sustainable coastal wetlands management in a variety of regions of the United States, including Alaska, the Gulf Coast, the Mid-Atlantic, and the Pacific Northwest;

(C) research, data, resource management, monitoring, reporting, lifecycle assessment, and verification improvements necessary to develop a carbon market around coastal macroalgae cultivation and sustainable coastal wetlands management or restoration; and

(D) relevant successes and failures of carbon markets in agriculture, forestry, and wetlands and how such successes and failures might apply to a future coastal carbon market.

SEC. 8. RULE OF CONSTRUCTION.

Nothing in this Act shall be construed as providing new authority—

(1) to expand Federal land acquisition in pursuit of the goal described in section 216 of Executive Order (86 Fed. Reg. 7627; relating to tackling the climate crisis at home and abroad); or

(2) to conserve or protect Federal lands or waters without prior written approval from the Governor of an affected State.

SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to the Administrator to carry out this Act $15,000,000 for each of fiscal years 2022 through 2026.