I

118TH CONGRESS
2D SESSION

H. R. 9912

To require the Subcommittee on Ocean Science and Technology of the National Science and Technology Council to establish the Interagency Working Group on Coastal Blue Carbon, require the Interagency Working Group to produce a national map and inventory of coastal blue carbon ecosystems, require the Administrator of the National Oceanic and Atmospheric Administration to carry out pilot programs to protect intact and restore degraded coastal blue carbon ecosystems, require the Secretary of the Smithsonian Institution to establish the Coastal Carbon Data Clearinghouse, require the Administrator to seek to enter into an agreement with the National Academies of Science, Engineering, and Medicine to conduct an assessment regarding geologic stores of carbon dioxide, require the Administrator to establish the Coastal Blue Carbon Inventory Program, and require the Administrator to conduct a national assessment to quantify the carbon sequestration potential of coastal blue carbon ecosystems.

IN THE HOUSE OF REPRESENTATIVES

OCTOBER 4, 2024

Ms. BONAMICI (for herself, Mr. POSEY, and Mr. BEYER) introduced the following bill; which was referred to the Committee on Natural Resources, and in addition to the Committees on Science, Space, and Technology, House Administration, and Energy and Commerce, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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A BILL

To require the Subcommittee on Ocean Science and Technology of the National Science and Technology Council to establish the Interagency Working Group on Coastal Blue Carbon, require the Interagency Working Group

to produce a national map and inventory of coastal blue carbon ecosystems, require the Administrator of the National Oceanic and Atmospheric Administration to carry out pilot programs to protect intact and restore degraded coastal blue carbon ecosystems, require the Secretary of the Smithsonian Institution to establish the Coastal Carbon Data Clearinghouse, require the Administrator to seek to enter into an agreement with the National Academies of Science, Engineering, and Medicine to conduct an assessment regarding geologic stores of carbon dioxide, require the Administrator to establish the Coastal Blue Carbon Inventory Program, and require the Administrator to conduct a national assessment to quantify the carbon sequestration potential of coastal blue carbon ecosystems.

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 ''Coastal Restoration Act of 2024''.

SEC. 2. DEFINITIONS.

In this Act:

(1) APPROPRIATE CONGRESSIONAL COMMITTEES.—The term ''appropriate congressional committees'' means—

(A) the Committees on Natural Resources and Science, Space, and Technology of the House of Representatives; and

(B) the Committee on Commerce, Science, and Transportation of the Senate.

(2) COASTAL BLUE CARBON ECOSYSTEM.—The term ''coastal blue carbon ecosystem''—

(A) means a coastal habitat, including a mangrove forest, a tidal marsh, a shrub-dominated or -forested tidal swamp, a kelp forest, a tidal mudflat, seagrass, coastal subtidal sediment, and other tidal freshwater, brackish, or salt-water wetlands, that has the ability to sequester carbon from the atmosphere, accumulate such sequestered carbon in biomass for years to decades, and store such sequestered carbon in soil for centuries to millennia; and

(B) includes—

(i) autochthonous carbon ecosystems; and

(ii) allochthonous carbon ecosystems.

(3) INDIAN TRIBE.—The term ''Indian Tribe'' has the meaning given such term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).

(4) INTERAGENCY WORKING GROUP.—The term ''Interagency Working Group'' means the Inter-

agency Working Group on Coastal Blue Carbon established under section 3(a).

(5) REGIONAL COASTAL OBSERVING SYSTEM.—The term ''regional coastal observing system'' has the meaning given the term in section 12303 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3602).

(6) STATE.—The term ''State'' means each of the several States, the District of Columbia, and each territory and possession of the United States.

(7) SUBCOMMITTEE.—The term ''Subcommittee'' means the Subcommittee on Ocean Science and Technology of the National Science and Technology Council.

(8) UNDERSECRETARY.—The term ''Undersecretary'' 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.

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

(a) ESTABLISHMENT.—The Subcommittee shall establish an Interagency Working Group on Coastal Blue Carbon to coordinate Federal efforts to research, monitor,

identify, map, protect, and restore coastal blue carbon ecosystems, including by—

(1) facilitating interagency coordination;

(2) developing a national strategy;

(3) supporting research and data collection;

(4) identifying resource and policy needs; and

(5) engaging relevant stakeholders.

(b) MEMBERSHIP.—The Interagency Working Group shall be composed 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 Transportation;

(15) the Department of State;

(16) the Federal Emergency Management Agency;

(17) the Office of Science and Technology Policy; and

(18) the Council on Environmental Quality.

(c) CHAIR.—The Interagency Working Group shall be chaired by the Undersecretary.

(d) RESPONSIBILITIES.—The Interagency Working Group shall carry out the following activities:

(1) In accordance with section 4, produce, oversee, update, and maintain a national map and inventory of coastal blue carbon ecosystems, including information required under that section.

(2) Develop a strategic assessment of the biophysical, chemical, economic, regulatory, social, and statutory impediments, including regionally specific opportunities to reduce such impediments and facilitating factors of such impediments, to restoration of coastal blue carbon ecosystems.

(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 carbon sequestration rates, in-

cluding lateral carbon fluxes, and greenhouse gas emissions in coastal blue carbon ecosystems.

(4) Establish national protection and restoration priorities for coastal blue carbon ecosystems, including an assessment of Federal funding being used for restoration efforts with respect to coastal blue carbon ecosystems.

(5) With other Federal agencies and users, ensure the continuity, use, and interoperability of relevant data assets through the Coastal Carbon Data Clearinghouse established under section 6(a).

(6) Coordinate with research, monitoring, standards development, project design, and other work related to marine carbon dioxide removal being conducted by relevant laboratories and offices of the National Oceanic and Atmospheric Administration and the Subcommittee.

(7) Assess the legal authorities that exist to protect and restore coastal blue carbon ecosystems.

(8) Implement the strategic plan required under subsection (e)(2).

(e) REPORTS.—

(1) IN GENERAL.—Not later than 1 year after the date of the enactment of this section, the Interagency Working Group shall submit to the appro-

priate congressional committees a report regarding the activities carried out by the Interagency Working Group under subsection (d), including the following:

(A) Information regarding activities, challenges, analyses, and additional work and research needed with respect to such activities.

(B) A summary of each federally funded coastal blue carbon ecosystem research, monitoring, protection, and restoration activity, including—

(i) the budget for each such activity; and

(ii) a description of the progress made by each such activity in advancing the national protection and restoration priorities established under subsection (d)(4).

(C) The strategic assessment developed under subsection (d)(2), including information regarding the vulnerability of coastal blue carbon ecosystems to climate impacts, such as sea-level rise, ocean and coastal acidification, and other environmental and human stressors.

(2) STRATEGIC PLAN.—

(A) IN GENERAL.—Not later than 6 months after the date on which the Interagency

Working Group submits the report required under paragraph (1), and not less than once every 5 years thereafter, the Interagency Working Group shall submit to the appropriate congressional committees 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 full fiscal year after the date on which the Interagency Working Group submits to Congress the report required under paragraph (1) begins.

(B) REQUIREMENT.—The strategic plan required under subparagraph (A) shall include an assessment of the use of existing Federal authorities and programs to protect and restore coastal blue carbon ecosystems and identify whether any additional such authorities or programs are needed.

(C) PUBLICATION.—Not later than 90 days before the Interagency Working Group submits to the appropriate congressional committees each strategic plan under subparagraph (A), the Interagency Working Group shall pub-

lish each such strategic plan in the Federal Register and 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, oversee, update not less than once every 5 years, and maintain a national map and inventory of coastal blue carbon ecosystems, including, with respect to each coastal blue carbon ecosystem—

(1) the species and each type of habitat in the coastal blue carbon ecosystem;

(2) the condition of each such habitat, including whether the habitat is minimally disturbed, degraded, drained, eutrophic, or tidally restricted;

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

(4) the size;

(5) the salinity class;

(6) the tidal range;

(7) an assessment of carbon sequestration potential, methane production, and net greenhouse gas reductions, including—

(A) consideration of—

(i) quantification;

(ii) verifiability; and

(iii) the permanence of such carbon sequestration potential, methane production, and net greenhouse gas reductions; and

(B) comparison to a historical baseline, as available;

(8) an assessment of the co-benefits associated with restoration 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 of aquatic infrastructure, such as dams, dikes, and levees;

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

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

(b) REQUIREMENTS.—In carrying out subsection (a), the Interagency Working Group shall—

(1) incorporate, to the extent possible, existing data collected—

(A) through federally funded research; or

(B) by a Federal, State, local, or Tribal agency, including data collected through—

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

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

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

(iv) the LiDar information coordination and knowledge program of the Federal Emergency Management Agency;

(v) the Biological and Environmental Research program of the Department of Energy; and

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

(2) procure, as the chair of the Interagency Working Group determines necessary, new data related to coastal blue carbon ecosystem mapping and inventorying;

(3) engage regional technical experts to accurately account for regional differences in coastal blue carbon ecosystems; and

(4) leverage relevant resources and information through the Marine Cadastre Hub and the National Marine Ecosystem Status Website.

(c) USE.—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—

(A) regional assessments of the number of degraded and destroyed coastal blue carbon ecosystems and contributing factors to the degradation and destruction of such coastal blue carbon ecosystems; and

(B) regionally specific recommendations for actions to support the restoration of such coastal blue carbon ecosystems;

(4) to provide to regional, State, local, and Tribal agencies and regional coastal observing system entities technical assistance, informed by the regional assessment developed under paragraph (3), to develop coastal blue carbon ecosystem restoration goals practices;

(5) to assess degraded coastal blue carbon ecosystems and the potential restore such coastal blue carbon ecosystems, including developing scenario modeling to identify vulnerable areas where management, protection, and restoration efforts should be focused;

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

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

(8) to develop, or scope development, of a coastal blue carbon calculator that is capable of providing estimates of carbon sequestration potential resulting from different restoration actions in coastal blue carbon ecosystems.

SEC. 5. RESTORATION AND PROTECTIONS FOR EXISTING COASTAL BLUE CARBON ECOSYSTEMS.

(a) IN GENERAL.—The Undersecretary shall—

(1) coordinate monitoring and research efforts of coastal blue carbon ecosystems among Federal agencies in cooperation with State, local, and Tribal governments, international partners, and nongovernmental organizations;

(2) establish a national goal for conserving coastal blue carbon ecosystems within States and Tribal lands, and, as appropriate, setting targets for the protection and restoration of intact coastal blue carbon ecosystems and the restoration of degraded coastal blue carbon ecosystems; and

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

(A) identify national coastal blue carbon ecosystem protection and restoration priorities, including, as applicable, the national priorities established under section 3(d)(4), 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) identify 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.

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

(1) IN GENERAL.—The Undersecretary, in coordination with the Interagency Working Group, State, local, and Tribal governments, and coastal stakeholders and as informed by the report required under section 3(e)(1), shall carry out—

(A) a pilot program to protect intact coastal blue carbon ecosystems; and

(B) a pilot program to restore degraded coastal blue carbon ecosystems.

(2) REQUIREMENTS.—In carrying out the pilot programs under paragraph (1), the Undersecretary shall—

(A) integrate the pilot programs to allow for the sharing of data, monitoring resources,

and mapping information between the pilot programs;

(B) develop best management practices, including selection criteria for high-functioning coastal blue carbon ecosystems in need of protection, design criteria and performance functions for coastal blue carbon ecosystem restoration, nature-based adaptation, restoration areas that intersect with built environments as green-gray infrastructure projects, and management of landward progression or migration of coastal blue carbon ecosystems;

(C) identify any barriers to efforts to restore coastal blue carbon ecosystems;

(D) seek to increase long-term carbon sequestration and storage in coastal blue carbon ecosystems;

(E) ensure that the pilot programs cover geographically and ecologically diverse locations with 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 maximum potential for greenhouse gas emission reduction;

(F) ensure that the goals and metrics for the pilot programs are communicated to the appropriate State, Tribal, and local governments and to the general public;

(G) coordinate with relevant Federal agencies on the Interagency Working Group to prevent unnecessary duplication of effort among Federal agencies and departments with respect to coastal blue carbon ecosystem restoration and protection programs;

(H) establish a procedure to review applications to the pilot programs, taking into account—

(i) quantification of coastal blue carbon ecosystem protection or restoration activities and outcomes;

(ii) verifiability of net carbon sequestration outcomes, including net climate effects;

(iii) additionality of carbon sequestered or emissions that are avoided as a result of coastal blue carbon ecosystem protection or restoration activities as compared to a historical baseline, when feasible and appropriate; and

(iv) permanence of the properties described in clauses (i) through (iii); and

(I) give priority to applications that propose restoration activities that the Undersecretary determines would—

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

(ii) protect key habitats for fish, wildlife, and maintenance of biodiversity;

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

(iv) protect coastal resources of national, historical, and cultural significance; and

(v) benefit communities of color, low-income communities, Tribal or Indigenous communities, or rural communities.

(3) REPORT.—The Undersecretary shall submit to the Interagency Working Group and the appropriate congressional committees a report regarding the pilot programs carried out under paragraph (1), including—

(A) the total number of acres of land or water protected or restored through the pilot programs;

(B) the status of each project to restore degraded coastal blue carbon ecosystems carried out under the pilot programs; and

(C) the change in the potential of coastal blue carbon ecosystems to sequester carbon associated with each project to restore degraded coastal blue carbon ecosystems carried out under the pilot programs.

SEC. 6. COASTAL CARBON DATA CLEARINGHOUSE.

(a) IN GENERAL.—The Secretary of the Smithsonian Institution, in coordination with the Undersecretary and the Interagency Working Group, shall establish and maintain the Coastal Carbon Data Clearinghouse to provide for the long-term stewardship of, and access to, data relating to national mapping of coastal blue carbon ecosystems, including by leveraging resources developed by the Coastal Carbon Network of the Smithsonian Institution.

(b) REQUIREMENTS.—In carrying out subsection (a), the Secretary of the Smithsonian Institution, acting through the head of the Coastal Carbon Data Clearinghouse and in coordination with the Undersecretary and the Interagency Working Group, shall—

(1) to the greatest extent possible, process, store, archive, provide access to, and incorporate all data collected through federally funded research;

(2) to the greatest extent possible, incorporate existing global and national data assets into the Coastal Carbon Data Clearinghouse;

(3) establish standards, protocols, and procedures to process, store, archive, and provide access to data in the Coastal Carbon Data Clearinghouse and best practices to share such data with Federal, State, and local agencies, Indian Tribes, coastal stakeholders, non-Federal resource managers, research institutions, universities, and nonprofit and private organizations;

(4) to the greatest extent possible, disseminate to the entities described in paragraph (3) data in the Coastal Carbon Data Clearinghouse; and

(5) develop digital tools and resources to support the public use of the Coastal Carbon Data Clearinghouse.

SEC. 7. NATIONAL ACADEMIES OF SCIENCES ASSESSMENT OF CONTAINMENT OF CARBON DIOXIDE IN DEEP SEAFLOOR ENVIRONMENT.

Not later than 90 days after the date of the enactment of this section, the Undersecretary shall seek to

enter into an agreement with the National Academies of Science, Engineering, and Medicine to conduct a comprehensive assessment regarding the long-term effects of geologic stores of carbon dioxide in a deep seafloor environment on oceanic and climate conditions, including effects on marine species and ecosystems and the efficacy of existing storage technologies.

SEC. 8. COASTAL BLUE CARBON INVENTORY PROGRAM.

(a) PROGRAM.—The Undersecretary, in coordination with the Secretary of State, the Director of the White House Office of Science and Technology Policy, the Secretary of the Interior, the Administrator of the National Aeronautics and Space Administration, and the Secretary of the Smithsonian Institution, shall establish the Coastal Blue Carbon Inventory Program.

(b) RESPONSIBILITIES.—In carrying out the Program, the Undersecretary—

(1) shall—

(A) support domestic coastal blue carbon ecosystem conservation activities;

(B) develop emissions mitigation, coastal resource management, and resilience strategies related to carbon storage and sequestration, including long-term sustainable management of

coastal blue carbon ecosystems in the context of marine spatial and resilience planning;

(C) assess coastal blue carbon ecosystem needs and prioritize scope;

(D) build country-level awareness of benefits and national priorities related to the restoration of coastal blue carbon ecosystem and capacity to restore coastal blue carbon ecosystems;

(E) address data and knowledge gaps related to—

(i) carbon sequestration rates of ecologically distinct ecosystems; and

(ii) the role of vertically migrating fishes, zooplankton, marine mammals, and fisheries in the carbon cycle;

(F) expand data management tools;

(G) develop national and regional inventories of coastal blue carbon ecosystems;

(H) provide to State, local, and Tribal governments and other entities engaged in coastal blue carbon ecosystem conservation, including universities, research institutions, and private or nonprofit organizations, technical assistance such as—

(i) country- and regional-level workshops and trainings; and

(ii) assessments of carbon stocks and stock changes; and

(I) maintain a publicly available digital library of coastal blue carbon ecosystem data, which shall include—

(i) open-source analysis and modeling tools;

(ii) disaggregated soil carbon data collected from coastal blue carbon ecosystems;

(iii) mapping resources to identify protected coastal blue carbon ecosystems;

(iv) surveys of ongoing and completed restoration projects in identified coastal blue carbon ecosystems; and

(v) any other information the Undersecretary determines necessary; and

(2) may, for any international research, data collection, and technical assistance activities or any other activity the Undersecretary determines appropriate, coordinate with existing interagency efforts to inventory blue carbon.

(c) REPORT.—Not later than 1 year after the date on which the Program is established under subsection (a),

and every 2 years thereafter, the Undersecretary shall submit to the appropriate congressional committees a report that—

(1) describes the type and number of participants in the Program;

(2) details each coastal blue carbon ecosystem inventoried since the previous report;

(3) assesses barriers to providing quality technical assistance to participants in the Program; and

(4) estimates the cost of the operation of the Program, including digital library maintenance and technical assistance.

(d) PROGRAM DEFINED.—In this section, the term ''Program'' means the Coastal Blue Carbon Inventory Program established under subsection (a).

SEC. 9. ASSESSMENT OF COASTAL BLUE CARBON ECOSYSTEM CLIMATE CONTRIBUTIONS.

(a) IN GENERAL.—The Undersecretary, in collaboration with the Administrator of the Environmental Protection Agency, and in consultation with the Secretary of Energy, the Administrator of the National Aeronautics and Space Administration, the Secretary of Agriculture, the Director of the National Science Foundation, and the heads of other Federal agencies the Undersecretary determines appropriate, shall conduct a measurements-based

national assessment to quantify the carbon sequestration potential of coastal blue carbon ecosystems, including the net effects on and contributions to atmospheric and aquatic accumulation of greenhouse gas emissions.

(b) OBJECTIVES.—In conducting the assessment required under subsection (a), the Undersecretary shall—

(1) develop standardization metrics to quantify the carbon sequestration potential of coastal blue carbon ecosystems, including—

(A) surface area of coastal blue ecosystems;

(B) soil carbon density and accumulation rate;

(C) ecosystem-specific carbon cycles; and

(D) any other metrics the Undersecretary determines appropriate;

(2) examine the climate contributions of released stored carbon dioxide, methane, and other harmful greenhouse gases by degraded coastal blue carbon ecosystems, including coastal blue carbon ecosystems degraded or damaged by—

(A) coastal development;

(B) climate change; or

(C) other human activities;

(3) measure the amount of carbon removed from the atmosphere by coastal restoration;

(4) understand measurable sensitivities of coastal blue carbon ecosystems to natural disturbances and human land use stressors;

(5) understand the complementary role that marine sediments play in contributing to organic carbon accumulation, including—

(A) relative rates of accumulation by different sediment types;

(B) the relationship between marine sediment surface area and organic carbon accumulation; and

(C) the effects of natural and human disturbances of continental shelf and slope sediments on releasing carbon dioxide, methane, and other greenhouse gases into the water column from marine sediments that are rich in organic carbon, including—

(i) the amount of greenhouse gas released;

(ii) the period of time that released greenhouse gases may remain in the water column; and

(iii) the amount of released greenhouse gases that may reach the atmosphere;

(6) develop standards for actionable data collection methodologies and archive that are useful to inform coastal management and policy decisions by State, local, and Tribal governments, including—

(A) carbon accounting tools;

(B) field and laboratory protocols; and

(C) valuation metrics;

(7) evaluate the barriers and opportunities to conducting data collection, assessment, project planning, and conservation and restoration work for coastal blue carbon ecosystems with State, local, and Tribal governments;

(8) determine the actions necessary to conduct national and regional research and monitoring of post-restoration coastal blue carbon ecosystems;

(9) assess the viability, barriers, and estimated environmental, social, and economic value of establishing a coastal blue carbon credit market for the purposes of supporting coastal blue carbon ecosystem restoration activities; and

(10) evaluate the current and potential opportunities to coordinate coastal blue carbon ecosystem

protection and restoration activities, research, and climate impact assessments with freshwater wetland ecosystem protection and restoration activities, including swamps and marshes, in and around the Great Lakes.

(c) UPDATES.—The Undersecretary, in collaboration with the Administrator of the Environmental Protection Agency, and in consultation with the Secretary of Energy, the Administrator of the National Aeronautics and Space Administration, the Secretary of Agriculture, the Director of the National Science Foundation, and the heads of other Federal agencies the Undersecretary determines appropriate, shall update the assessment required under subsection (a) every 2 years after the date of the enactment of this section—

(1) to provide long-term data access (and archive such data), recommendations, measurements, and reporting regarding the objectives described in subsection (b); and

(2) to consider objectives beyond those described in subsection (b) the Undersecretary determines appropriate to research the long-term climate contributions of coastal blue carbon ecosystems.

(d) REPORT.—Not later than 180 days after the Undersecretary completes the assessment required under sub-

section (a) or updates such assessment under subsection (c), the Undersecretary shall submit to the appropriate congressional committees a report describing the findings and recommendations regarding the coastal blue carbon ecosystem climate effects based on the assessment as they relate to the objectives outlined in subsection (b).

SEC. 10. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Undersecretary to carry out this Act $15,000,000 for each of fiscal years 2025 through 2029.

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