

Chair Raúl M. Grijalva
House Natural Resources Committee
Ocean-Based Climate Solutions Act of 2021
Section-by-Section Summary

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Last updated: June 1, 2021

TITLE I—BLUE CARBON

Section 101. Blue Carbon Program

Establishes a Blue Carbon Program within the National Oceanic and Atmospheric Administration (NOAA). Directs the agency to coordinate an interagency effort to understand, protect, and restore blue carbon ecosystems (BCEs).

Section 102. National map of coastal blue carbon ecosystems

Requires NOAA to produce and maintain a map and inventory of BCEs in the US to assess carbon sequestration in existing BCEs and potential carbon sequestration from the restoration of degraded BCEs.

Section 103. Report on blue carbon in the United States

Requires NOAA to submit biennial reports to Congress summarizing federally funded efforts to study, monitor, preserve, and restore BCEs in the United States. The report should assess the status and trends, vulnerabilities, impediments to restoration, and co-benefits of BCEs.

Section 104. Blue Carbon Partnership Grant Program

Establishes and authorizes \$300 million per year from 2022-2026 for NOAA to provide grants to eligible non-federal entities to restore BCEs on non-federal land. Grants are competitive, prioritizing projects that would protect fish and wildlife habitat, other coastal resources and benefit lower-income communities.

Section 105. Integrated pilot programs to restore degraded blue carbon ecosystems

Directs the Blue Carbon Program to carry out a set of pilot programs for blue carbon protection and restoration. Ensures that pilot projects are geographically, ecologically, culturally, and economically representative and maximize blue carbon storage and sequestration.

Section 106. Interagency working group

Establishes an interagency working group, to be chaired by the director of the Blue Carbon Program, to develop a national strategy for research, development, and demonstration (RD&D), monitoring, and stewardship (including assessment of legal authority to protect and restore) of BCEs. The strategy is to be developed within a year, updated every five years, and submitted to Congress.

Section 107. Blue carbon areas of significance

Directs the Administrator of NOAA to develop criteria for and designate “blue carbon areas of significance” (BCAS) and ensure the conservation of BCAS using Department of Commerce programs and resources. Federal agencies proposing actions that may harm BCAS are required to notify NOAA. The NOAA administrator shall consult with the action agency to determine adverse impacts, how to avoid such effects, and prescribe alternative action(s), if any, to mitigate negative impact. The action agency shall not carry out the proposed action if an alternative exists that fulfills the purpose of the proposed action without harming BCAS. If no feasible alternative exists, the action agency shall mitigate the impact and create carbon storage offsets for unavoidable impact.

Section 108. Authorization of Smithsonian Institution blue carbon activities

Charges the Smithsonian Institution to support and maintain the Coastal Carbon Data Clearinghouse to provide long-term stewardship of, and public access to, data related to BCEs. Authorizes \$5 million for each fiscal year 2022-2026 to carry out this section.

Section 109. Federal coastal and marine blue carbon restoration and protections; Funding

Directs the Fish and Wildlife Service (FWS), National Park Service, and NOAA to conduct coastal and marine restoration and protection on land and water managed by the respective agencies, to achieve: carbon sequestration through the restoration of BCEs, conservation of threatened BCEs, restoration of drained coastal wetlands, or restoration of impounded wetlands. Authorizes \$200 million to FWS, \$200 million to the National Park Service, and \$200 million to NOAA for each fiscal year 2022-2026.

Section 110. Authorization of appropriations

Authorizes \$50 million per year from 2022-2026 to the NOAA Administrator to carry out activities under this title.

Section 111. Definitions

TITLE II—OFFSHORE ENERGY

Subtitle A—Oil and Gas Leasing in the Outer Continental Shelf

Section 201. Prohibition of oil and gas activities in the Outer Continental Shelf

Prohibits geological or geophysical activities in support of oil, gas, or methane hydrate exploration and development in any area of the Outer Continental Shelf (OCS) except for the western and central Gulf of Mexico planning areas. Requires lessees conducting geophysical exploration on the OCS to use the best commercially available technology to reduce acoustic pressure levels.

Subtitle B—Offshore Renewable Energy

Section 211. Sense of Congress on the importance of offshore wind energy

Expresses the sense of Congress on the importance of increasing electricity production from offshore wind, consistent with environmental protection, in achieving a national goal of net-zero emissions.

Section 212. National offshore wind goal

Directs the Secretary of the Interior to seek to permit not less than 12.5 gigawatts of offshore wind energy production on the OCS by January 1, 2025, and not less than 30 gigawatts of offshore wind energy production by January 1, 2030. Requires DOI to submit an annual report to Congress detailing progress toward those targets.

Section 213. Removing roadblocks for data sharing

Amends confidentiality requirements to allow the Secretary of Commerce to share specific fisheries-related data with the Secretary of the Interior for offshore wind activities.

Section 214. Increasing funding for scientific research

Makes a portion of funds derived from offshore wind lease sales available to NOAA to research responsible long-term offshore wind development and interaction between federally protected marine resources.

Section 215. Extending collaboration with industry

Allows the Secretary of the Interior to accept contributions of money and services from public and private sources to assist in the orderly development of offshore wind on the OCS.

Section 216. Developing strategies to protect wildlife

Authorizes a National Academies study to review existing research and best practices for managing effects on wildlife of offshore wind development, as well as best practices for mitigating those effects. The report shall include consideration of the impact of reducing carbon emissions.

Section 217. Offshore wind for the Territories

Amends the Outer Continental Shelf Leasing Act to allow for offshore wind leasing and development in American Samoa, the Commonwealth of the Northern Mariana Islands, the Commonwealth of Puerto Rico, Guam, and the US Virgin Islands. Directs the Secretary of the Interior, in consultation with the governors of the territories, to study the feasibility of conducting offshore wind lease sales in areas of the OCS within the jurisdiction of US Territories. The Secretary shall conduct at least one lease sale for each Territory in which offshore wind leasing is feasible and appropriate and meet specific criteria.

Section 218. Increasing funding for coastal conservation and resilience

Directs 30% of revenue from federal offshore wind energy leases to NOAA’s national coastal resilience program.

TITLE III—CLIMATE-READY FISHERIES, EFFICIENT FISHERY VESSELS, AND BUY AMERICAN SEAFOOD

Subtitle A—Eat American Fish

Section 301. Sense of Congress

Expresses the sense of Congress that US government agencies that purchase seafood should prioritize buying seafood caught or harvested in the United States.

Section 302. Caught in the USA.

Provides authority to the Secretary of Commerce to make grants from the Saltonstall-Kennedy fund to promote the consumption of seafood products that are local or domestic, climate-friendly, or from well-managed but less known species.

Section 303. Eliminate fish subsidies in trade agreements

Directs federal trade negotiators to include eliminating subsidies that contribute to overfishing or illegal, unreported, and unregulated fishing among their "priority objectives." Requires parties to trade agreements to certify that they have made progress towards protecting and conserving 30 percent of their land and waters by 2030.

Section 304. Fuel efficient fishing vessels

Allows federal loan guarantees for fishing vessels to increase fuel efficiency or reduce fuel usage.

Section 305. Climate and Fisheries Research and Management Program

Establishes a new program within the Department of Commerce to identify, develop, and implement strategies to improve fisheries and aquaculture management under current and anticipated effects of climate change. Within three years, the Secretary is to commission and submit an independent evaluation of the program's results to Congress. Authorizes \$2 million for each fiscal year 2022-2026 to carry out this section.

Section 306. Climate-Ready Fisheries Innovation Program

Establishes a program to increase the capacity of fisheries management to adapt to climate change through research and development, consultation, provision of technical assistance, and grants. Authorizes \$5 million for each fiscal year 2022-2026 to carry out this section.

Section 307. Report on shifting stocks and ways to adapt fisheries for the impacts of climate change

Directs NOAA to assess current and future shifts in fish stocks due to climate change, evaluate those changes on fisheries stock assessments, assess current federal policies and their ability to promote resilience and adaptation, and identify actions to facilitate the shifting, splitting, or transitioning of fishing permits in regions where stocks have shifted.

Section 308. Essential fish habitat consultation

Prohibits federal agency actions, including funding and permits, that would harm areas designated as habitat areas of particular concern under the Magnuson Stevens Act. Requires consultation and mitigation of activities that would harm essential fish habitat. Authorizes such funds to the Secretary as may be necessary to carry out the requirements of the section.

Section 309. Ocean Aquaculture Research and Policy Program

Establishes a program in the Department of Commerce to promote aquaculture that maximizes ecosystem benefits and minimizes negative impacts in US coastal waters and the Exclusive Economic Zone (EEZ). Directs the Secretary to use existing grant and research programs within the Department to support the program. Directs the National Academies to review and synthesize

existing technologies and assessments of restorative ocean aquaculture to inform ongoing research and technical assistance funded by the program. Authorizes \$5 million for each fiscal year 2022-2026 to carry out this section.

TITLE IV—COASTAL BARRIER RESOURCE ACT AMENDMENTS

Section 401. Undeveloped coastal barrier

Broadens the definition of a coastal barrier to include bluffs and areas that are or will be vulnerable to coastal hazards such as flooding, storm surge, wind, erosion, and sea-level rise.

Section 402. Coastal hazard pilot project

Establishes a pilot program to select and illustratively map an area consisting of up to ten percent of the System showing the inclusion of coastal barriers under the new, broader definition of a coastal barrier outlined in section 401.

Section 403. Report on expanding Coastal Barrier Resources Act to the Pacific Coast, including Pacific Territories and the Freely Associated States

Directs the Secretary of the Interior to prepare and submit to Congress a report, including maps, describing the implications of expanding the Coastal Barrier Resource System to the Pacific coast, islands, and Territories, including defining coastal barriers using the broader definition of section 401.

Section 404. Require disclosure to prospective buyers that property is in the Coastal Barrier Resources System

Prohibits the sale of any interest in real property located in the CBRS unless the seller has disclosed to the buyer that the property is in the System and subject to the limitations on federal infrastructure and development assistance. Creates a civil penalty for violation of this provision.

Section 405. Improve Federal agency compliance with Coastal Barrier Resources Act

Each agency affected by the Coastal Barrier Resources Act shall report annually to the Secretary of the Interior regarding the agency's compliance with the Act, and the Secretary must certify agency compliance. Any agency not certified as in compliance must report to Congress within 90 days regarding how the agency will comply with the Act.

Section 406. Excess Federal Property

Defines “undeveloped coastal barrier” to mean any undeveloped coastal barrier regardless of the degree of development.

Section 407. Exceptions to Limitations on Expenditures

Makes a technical change to the current exceptions in the Coastal Barrier Resource Act by moving the existing exception for emergency actions to a different section to remove a current loophole.

Section 408. Authorization of appropriations

Increases the authorization of appropriations to carry out the Act from \$2 million to \$5 million annually for fiscal years 2022 through 2026.

TITLE V—COASTAL ZONE MANAGEMENT ACT

Section 501. Grants to further achievement of Tribal coastal zone objectives

Creates a new program of grants under the Coastal Zone Management Act (CZMA) to assist tribes in managing and conserving coastal lands and resources under their jurisdiction. Authorizes the Secretary of Commerce to waive matching requirements under certain conditions. Authorizes \$5 million per fiscal year 2022-2026 for such grants.

Section 502. Eligibility of District of Columbia for Federal funding

Adds the District of Columbia as a coastal state under the definitions of the CZMA to allow the District to develop and implement a state coastal zone management plan, exercise federal consistency authority, and receive federal funding and other assistance under the Act.

Section 503. Coastal and Estuarine Resilience and Restoration Program

Renames the Coastal and Estuarine Land Program the “Coastal and Estuarine Resilience and Restoration Program” and reauthorizes it at \$60 million per year from 2022-2026. Amends the purposes of the program to add mitigation of climate change to the original purposes of preserving conservation, recreation, ecological, historical, or aesthetic values. Sets additional criteria for prioritizing grants for projects that mitigate the effects of climate change through carbon sequestration and/or reduction of coastal hazards and/or to benefit communities lacking resources to prepare for or respond to coastal hazards.

Section 504. Coastal Zone Management Fund

Reauthorizes and amends the Coastal Zone Management Fund to provide grants to coastal states and tribes to address severe coastal flooding hazards, including emergency grants to address coastal flooding hazards following a major disaster declared under the authority of the Stafford Act and pre-disaster flooding mitigation projects. In addition to fees for coastal zone consistency appeal applications already deposited into the fund, authorizes appropriations of \$100 million annually for fiscal years 2022-2026.

Section 505. Authorization of appropriations

Authorizes appropriations to carry out the CZMA, which Congress has not reauthorized since 1999. Sets annual appropriations for the various grant programs under CZMA at \$137 million for each fiscal year 2022-2026.

Section 506. Amendments to National Estuarine Research Reserve System Program

Directs the Secretary of Commerce to designate at least five new National Estuarine Research Reserves within five years and to do so in a manner that ensures that there is a reserve in each coastal state and all biogeographic regions of the United States. Requires research guidelines for

the program to include monitoring and methods for tracking and modeling the impacts of climate change on estuarine systems. Directs the program to undertake additional activities to promote and coordinate estuarine research and to address climate change. Authorizes land acquisition and the construction and renovation of facilities to carry out the purposes of the program.

Section 507. Working Waterfronts Grants Program

Establishes a task force to identify and address critical needs of working waterfronts and outline options for addressing those needs. Establishes a Working Waterfront Grant Program for coastal states to implement a working waterfront plan. Plans must preserve and expand access to coastal waters for persons engaged in commercial fishing, recreational fishing and boating businesses, aquaculture, boatbuilding, or other water-dependent, coastal-related businesses. Authorizes \$15 million for each fiscal year 2022-2026.

TITLE VI—INSULAR AFFAIRS

Section 601. Definitions

Section 602. Coastal management technical assistance and report

Requires the Office for Coastal Management to provide technical assistance to the Insular Areas to enhance their coastal management and climate change programs. Authorizes \$5 million for each fiscal year 2022-2026 for this subsection. Requires the Office for Coastal Management to report annually to Congress on wetlands and climate change impacts in the Insular Areas.

Section 603. Climate Change Insular Research Grant Program

Establishes a program within NOAA to provide grants to institutions of higher education in the Insular Areas for monitoring, collecting, synthesizing, analyzing, and publishing local climate change data. Authorizes \$5 million per fiscal year 2022-2026 for this section.

Section 604. Extreme weather and climate outreach to Insular Areas

Directs the Office for Coastal Management to provide technical assistance to certain forecast offices in the Insular Areas for improving weather data collection, forecasting, and providing science, data, information, and impact-based decision support services. Authorizes grants to academic, non-profit, and local entities to conduct climate change research in the Insular Areas. Authorizes \$5 million for each fiscal year 2022-2026.

Section 605. Coral reef prize competitions

Authorizes the head of each federal agency represented on the U.S. Coral Reef Task Force to carry out prize competitions that promote coral reef research and conservation in the Insular Areas. Waives matching requirements under the Coral Reef Conservation Act of 2000 for grants to implement state and territorial coral reef conservation cooperative agreements to sustain coral reef management and monitoring.

Section 606. Ocean and Coastal Mapping Integration Act

Adds assessment of progress in the study of Insular Areas and the effects of climate change as an element of the biennial report to Congress on progress in coverage and modernization of ocean and coastal mapping required by the Ocean and Coastal Mapping Integration Act.

Section 607. Department of Interior Insular Affairs Technical Assistance Program

Authorizes \$5 million for each fiscal year 2022-2026 for the Department of the Interior to provide technical assistance for climate change planning, mitigation, and adaptation to Insular Areas.

Section 608. Disaster relief non-federal cost-share waiver

Exempts the Insular Areas from non-federal cost-sharing requirements for any funding for disaster relief, long-term recovery, restoration of infrastructure and housing, economic revitalization, and mitigation received under the Stafford Act.

TITLE VII—STRENGTHENING MARINE MAMMAL CONSERVATION

Section 701. Conservation of marine mammals adversely affected by climate change.

Amends the Marine Mammal Protection Act to direct NOAA, in consultation with the Marine Mammal Commission, to develop climate impact management plans for marine mammals highly threatened by climate change. These management plans must include strategies for mitigating climate change's direct and indirect effects on the marine mammal population and may be integrated into Marine Mammal Protection Act conservation plans or Endangered Species Act recovery plans. Authorizes \$3 million to NOAA, \$2 million to DOI, and \$1 million to the Marine Mammal Commission per each fiscal year 2022-2026 to carry out this section.

Section 702. Vessel speed restrictions in marine mammal habitat

Directs the NOAA Administrator to designate areas of importance to marine mammals known to experience vessel strikes and establish seasonal or year-round vessel restrictions to reduce vessel strikes as necessary for all vessels, consistent with safe navigation. Authorizes \$3 million for each fiscal year 2022-2026 to carry out this section.

Section 703. Monitoring ocean noise for marine mammal protection

Directs NOAA to work through the Integrated Ocean Observation System to maintain and expand a network of federal and non-federal systems that measure and observe underwater sound to protect and manage marine life. Authorizes \$1.5 million for fiscal years 2022-2026 to carry out this section.

Section 704. Grants for seaports to establish programs to reduce the impacts of vessel traffic and port operations on marine mammals

Directs NOAA to establish a grant program for up to 10 ports to develop and implement programs to protect marine mammals through activities that reduce noise and vessel strikes, enhance marine mammal habitat, and monitor threats to marine mammals. Priority is given to programs at ports

with a higher relative threat to marine mammals, reduce noise and vessel strikes, and track progress toward program goals. Authorizes \$5 million for each fiscal year 2022-2026.

Section 705. Near real-time monitoring and mitigation program for large whales.

Directs NOAA to create a Near Real-Time Large Whale Monitoring and Mitigation Program to curtail vessel collision, entanglement risk, and other impacts such as underwater noise to large whales. The program should detect and alert ocean users and enforcement agencies of the location of large whales on a near real-time basis, inform sector-specific mitigation protocols that can reduce take, and continually integrate improved technology. A pilot project will inform the technologies, monitoring methods, and mitigation protocols used. Requires an annual report of the benefits and efficacy of the pilot program. Authorizes \$5 million for each fiscal year 2022-2026 for this section.

Section 706. Grants to support technology that reduces underwater noise from vessels.

Directs NOAA to create a grant program to assist the development and implementation of new or improved technologies that reduce threats to and enhance the habitats of marine mammals and other marine species by quantifiably reducing underwater noise from marine vessels. Authorizes \$5 million for each fiscal year 2022-2026.

Section 707. Naval technology transfer for quieting federal non-combatant vessels

Directs the Department of Defense to write an unclassified report to Congress identifying existing non-classified naval technologies that reduce underwater noise and evaluate the effectiveness and feasibility of incorporating such technologies in the design, procurement, and construction of non-combatant vessels in the United States. Authorizes \$1 million for the fiscal year 2022 to remain available until expended.

TITLE VIII—INTERNATIONAL AGREEMENTS, EFFORTS IN THE ARCTIC, AND BUREAU OF INDIAN AFFAIRS TRIBAL RESILIENCE PROGRAM

Subtitle A: International Agreements

Section 801. Law of the Sea Convention

Finds that the United States would benefit from being party to the Law of the Sea Convention (LOSC) by being better able to negotiate issues such as deep seabed mining, Arctic claims, high seas, and migratory fish stocks, and ocean protection. Expresses the sense of the House of Representatives that the Senate should give its advice and consent to the ratification of LOSC.

Section 802 United Nations Sustainable Development Goal 14

Requires NOAA to submit a report to Congress that describes the manner and extent to which the US has made progress towards achieving the targets of the 14th Sustainable Development Goal of the United Nations (relating to conserving and sustainably using the oceans, seas, and marine resources), and plans to achieve those targets.

Section 803. Marine Protected Areas in areas beyond national jurisdiction

Requires the Secretary of State, in consultation with NOAA, to develop a plan to provide technical assistance, data, and other resources for identifying and establishing strongly protected areas of the ocean in areas beyond national jurisdiction.

Subtitle B: Efforts in the Arctic

Section 811. Plan for the United States to cut black carbon emissions to 33 percent below 2013 levels by 2025

Expresses the sense of Congress that black carbon contributes substantially to warming in the Arctic. The United States should therefore reaffirm its international commitment to reduce this pollutant dramatically. Directs the Secretary of State to lead an interagency effort, in consultation with tribes and Indigenous communities, to develop and submit to Congress a plan to reduce black carbon emissions 33 percent below their 2013 level by 2025.

Subtitle C: Bureau of Indian Affairs Tribal Resilience Program

Section 821. Bureau of Indian Affairs Tribal Resilience Program

Establishes a grant program within the Department of the Interior to improve the resilience of tribes and Indigenous communities to the effects of climate change. Creates a subgroup on Tribal resilience within the White House Council on Native American Affairs. Establishes a tribal resilience liaison within the Department of the Interior to coordinate with tribes, Indigenous communities, and relevant Federal agencies to facilitate tribal engagement in climate matters at the Federal level. Authorizes \$200 million for each fiscal year 2022-2026 to carry out these activities.

TITLE IX—COASTAL RESILIENCY AND ADAPTATION

Section 901. Living Shoreline Grant Program

Establishes within NOAA a grants program for the design and implementation of living shoreline projects. Grants are available to state, local and tribal governments and non-profit organizations. Authorizes \$50 million for each fiscal year 2022-2026.

Section 902. National Oceanic and Atmospheric Administration research programs

Establishes a living shoreline and nature-based infrastructure research program to provide risk reduction for coastal areas. Authorizes \$5 million for each fiscal year 2022-2026 for this subsection.

Establishes a competitive extramural grants program to enhance the resilience and sustainability of coastal communities and reduce disaster recovery costs. The program aims to prioritize projects that protect life and critical infrastructure and provide analyses and decision support tools to

enhance community and coastal ecosystem resilience. Authorizes \$5 million for each fiscal year 2022-2026 for this subsection.

Establishes within NOAA a program of grants to members of the academic community, the seafood industry, non-profit organizations, or state agencies to research the conservation, restoration, or management of oysters in estuarine ecosystems. Authorizes \$5 million for each fiscal year 2022-2026 for this subsection.

Section 903. Improvements to the National Oceans and Coastal Security Act

Revises purpose and uses of a fund for grants administered by NOAA and the National Fish and Wildlife Foundation. Broadens the definition of Indian Tribe for purposes of the program. Revises the process and procedures for awarding state and national grants under the program. Limits state grants to 80 percent and national grants to 20 percent of annual funding. \$150 million of the funds must go towards state grants, and \$50 million must go towards national grants, \$5 million of which must go to tribes and Indigenous communities. Broadens the activities eligible for funding to include:

- Protection, conservation, and restoration of ocean and coastal resources and infrastructure
- Planning for and management of coastal development
- Improve understanding of changing threats to the ocean and coasts
- Enhancing the resiliency of coastal infrastructure
- Acquiring property in support of the purposes of the program

Requires the program's annual report to Congress to include the blue carbon benefits of the program. Authorizes the program at \$200 million per year for each fiscal year 2022-2026.

Section 904. Shovel-ready restoration grants for coastlines and fisheries

Authorizes \$10 billion for the fiscal year 2022 to support shovel-ready coastal restoration projects with priority to projects that help stimulate the economy, provide jobs for workers affected by COVID-19, and assist communities of color, low-income communities, tribal communities, and rural communities.

Section 905. Strategic Climate Change Relocation Initiative and Program

Establishes an initiative within the Council on Environmental Quality to coordinate federal activities related to the voluntary relocation of communities facing health, safety, and environmental impacts from climate change, including hurricanes, flooding, sea-level rise, and repeat wildfires.

Section 906. National Centers of Excellence in Coastal Research and Education

Requires NOAA to designate institutions of higher education that have shown national leadership in coastal climate change adaptation and mitigation as National Centers of Excellence in Coastal Resilience Research and Education, identify those Centers of Excellence as sources of expert advice and guidance, and formalize and enhance existing collaborations between public institutions of higher learning and federal agencies. Authorizes \$3 million for each fiscal year 2022-2026 for this section.

Section 907. Initiate designation process for successful sanctuary nominations and technical corrections to the National Marine Sanctuaries Act

Directs the Secretary of Commerce to initiate the process for designating as national marine sanctuaries each area included in the inventory of successful nomination for such designation maintained by NOAA and complete each designation process within four years. Authorizes \$4 million for each fiscal year 2022-2026 for this section.

Section 908. Grants to further resilience and climate research with Indigenous and Tribal communities

Establishes a new grant program in the National Marine Sanctuary System to support climate research and resilience with Indigenous and local knowledge of marine and natural areas. Authorizes \$5 million for each fiscal year 2022-2026.

TITLE X—OCEAN HEALTH: OCEAN ACIDIFICATION AND HARMFUL ALGAL BLOOMS

Subtitle A—Coastal Communities Ocean Acidification Act

Section 1001. Coastal community vulnerability assessment

Amends the Federal Ocean Acidification Research and Monitoring Act of 2009 to require the Secretary of Commerce to assess and issue a public report on the social and economic vulnerability to ocean acidification of coastal resource-dependent communities, including identifying critical knowledge gaps potential adaptation strategies. The report is to be updated every seven years. In addition, the Secretary shall collaborate with and support state, local, Indigenous, and Tribal governments conducting vulnerability assessments related to ocean acidification and to report to Congress on such efforts. Requires the Secretary to include in the ocean acidification strategic research plan already required under the Act recommendations on research needed to address knowledge gaps identified in the community vulnerability assessment.

Subtitle B—Ocean Acidification Act

Section 1011. Prize competitions

Authorizes federal agencies participating in the interagency working group on ocean acidification to offer prizes to advance understanding ocean acidification or its impacts or develop management or adaptation options.

Subtitle C—Harmful Algal Bloom Essential Forecasting

Section 1021. Centers of Excellence in Harmful Algal Bloom Research, Prevention, Response, and Mitigation

Directs the Administrator of NOAA to designate new Centers of Excellence to improve and coordinate existing work to research and address harmful algal blooms, formalizing partnerships

between local, state, and federal stakeholders. Authorizes \$12.5 million for each fiscal year 2022-2026.

TITLE XI—OCEAN DATA AND COLLABORATIVE EFFORTS

Subtitle A—Regional Ocean Partnerships

Section 1101. Findings; sense of Congress; purposes

Congressional findings on the importance of and threats to marine and coastal waters, tribal and Indigenous knowledge and expertise of ocean and coastal waters, and the complexity of their management due to multiple jurisdictions and authorities. Expresses the sense of Congress that regional ocean partnerships (ROPs) help coordinate interstate management and that the federal government should support such efforts to advance shared regional priorities. Establishes the purposes of this subtitle to complement and expand voluntary efforts to manage and restore coastal areas and resources across state boundaries, authorize the establishment of ROPs, empower states and tribes to take a lead role in ocean and coastal management, incorporate tribal interests in management, and make duly designated ROPs eligible to receive federal funding.

Section 1102. Regional Ocean Partnerships

Authorizes the Secretary of Commerce to establish new ROPs on request from the governor of a coastal state. Establishes procedures and requirements for designation and governance of ROPs. Authorizes \$10.1 million for the fiscal year 2022, with slight increases each year through 2026, to carry out the purposes of the subtitle. Authorizes \$1 million for each fiscal year 2022-2026 to NOAA for tribes and Indigenous communities to participate or engage with ROPs.

Subtitle B. National Coastal Resilience Data and Services

Section 1111. Authorization of NOAA Activities

Requires NOAA to develop a comprehensive suite of the coastal flood, sea-level rise, Great Lakes water level, and vertical land motion data, products, and services, and conduct the research and development necessary to support those products and services that augment and combine existing services into a coordinated decision support network; produce and maintain timely data and maps that allow coastal communities to plan for flood risk, and engage with end-users to address information gaps and needs. Requires a report every three years on implementation of this section and an evaluation of the need to expand and improve functions. Authorizes \$3 million for each fiscal year 2022-2026.

Section 1112. Interagency Coordination

Directs the director of the Office of Science and Technology Policy, in consultation with NOAA, to facilitate interagency cooperation and alignment of federal government activities conducted for coastal flooding, including sea-level rise, to improve the ability of the US to prepare for, avoid,

mitigate, respond to, and recover from potentially devastating impacts; and to coordinate the activities of the Coastal Flooding and Sea Level Rise Subcommittee, created in this section. Requires increased engagement with the international and academic communities and the commercial sector regarding these activities.

Subtitle C—Centralized Website for Resiliency Grants

Section 1121. Centralized website for resiliency grants

Directs NOAA to create, maintain, and regularly update a publicly available website that provides links and information about all grant programs administered by NOAA to assist states, tribes, Indigenous, and local communities with resiliency, adaptation, and climate change mitigation and sea-level rise.

Subtitle D – Automatic Identification Systems

Section. 1131. Automatic Identification Systems

Expands requirements for most large commercial vessels operating under the jurisdiction of the United States to be equipped with and use an automatic identification system throughout the US EEZ.

TITLE XII – MEASURES TO ADDRESS GREENHOUSE GAS POLLUTION FROM SHIPPING VESSELS

Section 1201. Greenhouse gas emissions from shipping.

Establishes monitoring, reporting, and verification requirements of greenhouse gas emissions for vessels over 5,000 GT. Vessels must measure and report greenhouse gas emissions and particulate pollution emitted on an annual basis. Directs NOAA to publish a yearly report on the shipping sector's emissions and efficiency.

Section 1202. Quiet seas and clear skies vessel speed reduction award program

Directs NOAA to establish a program to reduce air pollution, underwater noise, and the risk of vessel strikes by encouraging voluntary reduction in the speed of shipping vessels operating within the EEZ. Authorizes \$4 million for each fiscal year 2022-2026 for this section.

TITLE XIII – VIRGIN PLASTIC EXCISE TAX

Section 1301. Virgin plastic excise tax.

Places a 5-cent excise tax on virgin plastic in manufactured single-use products such as packaging, with exemptions for medical products and personal hygiene products.

Section 1302. Establishment of the Virgin Plastic Trust Fund.

Establishes a Virgin Plastic Trust Fund to receive the funds derived from section 1301. Directs half of the funds to the general fund and the other half to fund activities in the broader ocean climate legislation.

TITLE XIV—STUDIES AND REPORTS

Section 1401. Deep-sea mining

Authorizes a National Academies study of the environmental impacts associated with deep seabed mining, including characterization of deep seabed ecosystems, assessment of species impacts, sediment plume impacts, and potentially related emissions.

Section 1402. National Academies Assessment of Oceanic Blue Carbon

Authorizes a National Academies study of the global carbon sequestration potential of protecting or restoring oceanic blue carbon, including natural carbon storage in the deep seafloor environment and marine mammals, and the impacts of ocean activities like mining on such carbon storage.

Section 1403. Ocean, Great Lakes climate impacts and action report

Requires NOAA to submit a report every two years to Congress about the effects of climate change on the ocean, Great Lakes, and coastal ecosystems and steps the United States is taking to minimize such impacts.

Section 1404. Report on the ecological and economic effects of high seas fishing in the ocean areas beyond national jurisdiction (ABNJ)

Authorizes a National Academies study to explore the challenges and opportunities associated with implementing a moratorium on fishing on the High Seas and evaluate such an action's economic and ecological effects.

Section 1405. National Academies assessment of public access to the coasts

Authorizes a study by the National Academies to assess public access to the nation's coasts, including the Great Lakes. This study must include the quality and quantity of existing public access points by state, opportunities and barriers for low-income communities, communities of color, Tribal and Indigenous communities, and rural communities, the impacts of sea-level rise and extreme weather, and strategies to prevent the loss of public access.

Section 1406. Study examining the impact of acidification and other environmental stressors on estuarine environments

Authorizes the National Academies to conduct a study examining the existing science of acidification in estuarine environments, including the Great Lakes, including challenges to studying the phenomenon and the combined effect of acidification and other environment stressors in estuarine environments. The study shall provide recommendations for improving acidification research and applying science in management and mitigation decisions.

Section 1407. Study examining the causes and impacts of black carbon

Authorizes the National Academies to conduct a study on black carbon that quantifies the sources of black carbon emissions and examines its effects on Indigenous communities and marine and terrestrial Arctic wildlife. Authorizes \$1 million for the study for the fiscal year 2022.

Section 1408. Marine Protected Areas inventory

Requires NOAA to update the National Marine Protection Areas Centers Marine Protected Areas Inventory to include an inventory of areas already protected in the US EEZ, marine protected areas outside of US jurisdiction, areas being considered for protection by other countries or international bodies, areas in the US EEZ that prohibit certain fishing activities, and lease areas for offshore wind. Authorizes \$2 million for the study.

Section 1409. Marine biodiversity census

Requires NOAA to develop a strategy to initiate a census of marine life. Authorizes \$2 million in each fiscal year 2022-2026 to carry out this section.

Section 1410. Marine biodiversity gap analysis

Directs the Secretary of Commerce and the Secretary of the Interior to conduct a marine biodiversity gap analysis within 18 months and updated biennially. The gap analysis must analyze habitats, species, and ecosystems across the US ocean, identify the types of ecosystems and the percentage needed to protect biodiversity and mitigate climate change and be made publicly available. Authorizes \$2 million in each fiscal year 2022-2026 to carry out this section.

Section 1411. Study and action on derelict fishing gear

Directs NOAA to conduct an analysis of the scale of fishing gear losses by the United States and foreign fisheries, an evaluation of the ecological and human impacts of derelict fishing gear, recommendations on management measures and an assessment of their cost, and an assessment of the effect of fishing gear loss attributable to foreign countries.