Good afternoon Chairman Grijalva, Ranking Member Westerman, and members of the Committee. I am Stephen Guertin, Deputy Director for Policy for the U.S. Fish and Wildlife Service (Service) within the Department of the Interior (Department). I appreciate the opportunity to testify before you today on the Service-related provisions contained in H.R. 3764, the Ocean-Based Climate Solutions Act. This testimony provides comments on the provisions of greatest relevance to the Service’s areas of jurisdiction and does not include comments on other provisions of the legislation, which continue to be under review by the Department and the Administration.

The Service’s mission is “working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.” As we work to carry out this important charge, climate change presents a profound and growing conservation challenge. Warming temperatures, changing weather patterns, and other climatic changes are having far-reaching impacts on species and ecosystems, causing shifts and contractions in species ranges, changes in the timing of breeding and migration events, and declines in fish, wildlife, and plant populations.

The impacts of greenhouse gas emissions and climate change are especially apparent along our nation’s coasts, which face rising sea levels, saltwater intrusion, warming ocean temperatures, ocean acidification, and increasingly frequent and intense storms. These stressors can have cascading and cumulative impacts to species and their habitats. Increasing coastal development further compounds these risks by reducing available habitat and making our coasts less resilient in the face of storms. With population growth and urbanization projected to increase along the American coastline, the people, assets, and natural resources exposed to these risks will increase significantly.

Despite these challenges, our coasts present a tremendous opportunity to address climate change and its effects, and create a more resilient future for people and wildlife alike. By investing in green infrastructure and coastal protection and restoration, fish and wildlife habitat can be created and improved, more carbon can be sequestered, and coastal communities can be more effectively buffered from severe storms. The Service deploys these strategies in coastal habitats across the country to capture and store carbon, mitigate the impacts of climate change, and help wildlife and people adapt to our changing world. The Ocean-Based Climate Solution Act
recognizes the important role that oceans and coasts play in addressing climate change and its impacts on the people and natural resources that depend on them. The bill authorizes new programs and expands upon existing ones with the goal of better tackling the impacts of climate change on coastal and marine communities and ecosystems.

**Title IV – Coastal Barrier Resources Act amendments**

Undeveloped coastal barriers and their associated aquatic habitat provide a number of benefits to the economy and society. These lands and waters serve as natural storm buffers; provide habitat for countless fish and wildlife species, including many at-risk species; support recreationally- and commercially-important fisheries; improve water quality; and create recreation and tourism opportunities that help support local economies. Development of these dynamic areas, however, often puts people in harm’s way and can disrupt the natural movement and functions of the barriers, degrading fish and wildlife habitat and increasing shoreline erosion. The impacts of sea level rise and storm surge due to climate change will increase both the risk associated with developing coastal barriers and the value of these areas as cost-effective buffers to protect mainland communities against coastal storm damage.

With the passage of the Coastal Barrier Resources Act (CBRA) in 1982, Congress recognized that certain actions and programs of the Federal Government have historically subsidized and encouraged development on coastal barriers, resulting in the loss of natural resources, threats to human life, health, and property, and the expenditure of millions of tax dollars each year. The purposes of the law are to save taxpayers’ money, keep people out of harm’s way, and remove federal incentives to develop coastal barriers. The law accomplishes these purposes by restricting most new federal expenditures and financial assistance, including federal flood insurance, in areas designated as the John H. Chafee Coastal Barrier Resources System (CBRS).

The CBRS now encompasses about 3.5 million acres along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts. The Service is responsible for administering CBRA, which includes maintaining and updating the official maps of the CBRS and consulting with federal agencies that propose to spend funds within the CBRS. Congress plays an important role in the implementation of the law by considering and adopting the Service’s recommended maps into law.

CBRA does not prohibit or regulate development; however, it removes the federal incentives to build on these unstable and environmentally-sensitive areas. By removing federal incentives for such development, CBRA uses a nonregulatory and free-market approach to conserve and maintain these hurricane-prone, biologically-rich coastal barriers. Over its nearly 40-year history, CBRA has been successful in achieving its goals. One recent study evaluating the effectiveness of CBRA in discouraging development on coastal barriers found that the Act has been successful in its intention of decreasing development rates and densities of hazard-prone coastal
Another study found that CBRA reduced federal coastal disaster expenditures by $9.5 billion between 1989 and 2013.

Maintaining these natural storm buffers will be even more important as the nation prepares for more severe coastal flooding, erosion, and other anticipated effects associated with climate change and sea level rise. Title IV of the Ocean-Based Climate Solutions Act recognizes CBRA’s role in mitigating these hazards associated with climate change and reducing development pressures along our coasts. The bill makes several amendments to the law to expand its geographic scope and to enhance compliance with and awareness of CBRA. The Service supports the provisions of this title, which are outlined below, and looks forward to working with the Committee on technical changes.

Section 401. Undeveloped coastal barrier
The Service supports Section 401, which revises the definition of an “undeveloped coastal barrier” to remove restrictive language regarding the impact of “man’s activities” on coastal barriers. Section 401 also modifies the definition of a coastal barrier to accommodate the geomorphology of the Pacific Coast and address sea level rise.

Section 402. Coastal hazard pilot project
The Service supports Section 402, which authorizes a pilot project to examine application of the free market CBRA approach to certain high hazard coastal areas that are not currently a part of the CBRS. The longer-term purpose of this project is to better address coastal hazards that are increasing, such as sea level rise and storm surge. This section directs the Service to consider including within the CBRS, certain vulnerable coastal areas that would not otherwise meet the criteria of CBRA and submit to Congress a subset of draft maps delineating those areas. This pilot project could lead to future Congressional action to add such areas to the CBRS under certain conditions and may result in enhanced coastal resiliency for the longer term.

Section 403. Report on expanding Coastal Barrier Resources Act to the Pacific coast
Section 403 authorizes a study on expanding the CBRS to include areas along the Pacific coast, including Alaska, Pacific Territories, and Freely Associated States. The Service supports the intent of this provision to increase the resiliency of the Pacific coastline and save taxpayer dollars. There are, however, significant geological and climatic differences between the Pacific coast and those areas of the Atlantic and Gulf coasts that meet the definition of coastal barrier under CBRA. Additionally, large portions of the Pacific coast of the contiguous United States are already either highly developed and therefore would not meet criteria for inclusion in the CBRS, or are currently protected for conservation purposes, and therefore at low risk of development. Given these significant differences between the Pacific coast and other coastlines currently subject to CBRA, the Service does not believe that CBRA is the most effective tool to achieve the goal of this section. If enacted, we would interpret Section 403 to allow for the consideration
of coastal high hazard areas similar to those considered in Section 402. To ensure that the potential impacts on federally-recognized tribes, indigenous communities, and cultural and historic resources are fully considered, the Service would coordinate with the Bureau of Indian Affairs and Interior’s Office of Insular Affairs on a study of expanding CBRA to the Pacific Coast.

Section 404. Require disclosure to prospective buyers that property is in the CBRS
Section 404 requires that sellers of real property disclose to buyers when property is within the CBRS and would require the Department to create an online reporting system for such transactions. The Service supports the goal of this provision to increase awareness of CBRA. A CBRS designation can limit the availability of federal flood insurance and other federal subsidies. When prospective buyers are not aware of a property’s inclusion in the CBRS, they are unable to make informed decisions that consider the increased costs of obtaining private flood insurance. Because many sellers (and buyers) may not be aware of existing CBRS designations, the disclosure system established under Section 404 may not have the full desired effect. The Service suggests modeling this disclosure requirement after the Residential Lead-Based Paint Hazard Reduction Act of 1992, which has been highly effective at increasing awareness of lead-based paint and lead-based paint hazards before the sale or lease of most housing.

Section 405. Improve Federal agency compliance with CBRA
The Service supports Section 405, which requires the Secretary of the Interior (Secretary) to annually certify to Congress whether federal agencies are in compliance with CBRA. This builds upon an existing requirement that affected agencies certify annually to the Secretary that they are in compliance with the Act. Section 405 also directs affected agencies to update their regulations and guidance, as necessary, to comply with CBRA.

Section 406. Excess Federal property
The Service supports Section 406, which expands upon the existing authority for the Secretary to administratively add to the CBRS excess federal property that qualifies as an “undeveloped coastal barrier” to also allow for the inclusion of any excess federal property regardless of the degree of development.

Section 407. Emergency exceptions to limitations on expenditures
The Service supports Section 407, which modifies the emergency exemption to CBRA’s limitations on expenditures to better provide for critical response activities to alleviate an immediate emergency. Section 6 of CBRA provides several exceptions to the law’s limitations on expenditures for federal assistance. These exemptions are divided into two broad categories – those exempted activities and projects that must be consistent with the purposes of CBRA and those that are exempted regardless of consistency.
Currently, the law’s exemption for emergency actions essential to saving lives and protecting property and public health and safety requires that the exempted actions be consistent with the purposes of CBRA. The Service supports removing this requirement, as it is not practical for urgent life-saving emergency actions. The Service also agrees that this exception should be limited to expenditures necessary to alleviate the “immediate” emergency, consistent with the original spirit of the exception. It is the Service’s view that the emergency exception should not be used to facilitate federal expenditures for property protection activities that exceed the scope and needs of the true and immediate emergency.

Section 408. Authorization of appropriations
The Service supports Section 408, which reauthorizes CBRA through 2026 at an increased level. Fulfillment of this section will better position the Service to help mitigate the effects of climate change. In addition to supporting the implementation of the above provisions, the increased authorization level will allow the Service to increase its capacity to maintain and update the maps, improve public awareness of CBRA, and engage in consultation with other federal agencies.

Additional opportunities for enhancement of CBRA
The Service proposes the following additional amendments to CBRA to complement and enhance the efforts contained in Title IV, H.R. 3764, the Ocean-Based Climate Solutions Act.

Incentivizing federally-funded buyouts to enhance long term coastal resiliency
With the heightened risk of sea level rise and coastal flooding, federally-funded buyouts that remove properties from the development cycle and allow them to return to their natural state are becoming an increasingly important component of federal disaster policy. As coastlines become more vulnerable to the effects of climate change, federal, state, and local governments are offering incentives in certain areas to help keep people and property out of harm’s way. Such efforts can result in a patchwork of acquired properties when some property owners decline buyout offers. Because buyout programs are generally consistent with the purposes of CBRA, the Service recommends amending Section 4 to allow the Service to administratively add to the CBRS coastal barrier areas that have been offered federally-funded buyouts. This authority would build upon CBRA’s free-market approach and allow property owners a choice to be fairly compensated by the federal government for transferring ownership of their property and removing it from the development cycle; or to maintain their homes in high-risk areas, but to do so at their own expense, without future federal financial assistance.

Mapping progress and timely adoption of recommended maps
An important step in solidifying CBRA’s conservation legacy is the digitization and modernization of the maps upon which the law is based. The official maps of the CBRS were
first created more than 40 years ago. Today’s technology produces more refined maps and digital data that are more easily accessed and understood by the public. Congress recognized the challenges associated with the outdated maps and, through the 2000 and 2005 CBRA reauthorizations, directed the Service to prepare digital maps for the entire CBRS and make recommendations for its expansion. The Service agrees that the maps should be modernized and is working diligently on that effort.

To date, the Service has transmitted comprehensively revised maps for approximately 14 percent of the CBRS to Congress for consideration and Congress has adopted modernized maps for 9 percent of the acreage within the CBRS.

The Service is actively remapping an additional 26 percent of the CBRS. This includes the Hurricane Sandy Remapping Project, through which the Service is modernizing and remapping the official maps of the CBRS for the nine states affected by Hurricane Sandy in 2012. The Service is also undertaking smaller mapping projects to address mapping errors and make technical corrections, including revising the maps for certain units in Florida and South Carolina. The maps associated with these projects recently underwent public review and we look forward to delivering the Service’s final recommended maps to Congress in the near future.

Congress’ adoption of final recommended maps produced by the Service will help enhance coastal resiliency and sustainability by improving federal agency compliance with CBRA and by adding other vulnerable coastal areas that qualify as undeveloped coastal barriers to the CBRS. Many of these revised maps also correct mapping errors affecting property owners and provide more accurate and accessible CBRS data for planning coastal infrastructure projects, habitat conservation efforts, and flood risk mitigation measures. We would appreciate the opportunity to brief the Committee on the process and on outstanding maps.

**Title VII – Strengthening marine mammal conservation**

The Marine Mammal Protection Act (MMPA) of 1972 established a federal responsibility for the management and conservation of marine mammals and was the first statute to call for an ecosystem approach to natural resource management and conservation. Jurisdiction under the MMPA is shared between the Service and the National Marine Fisheries Service, with the Service having authority over the conservation and management of sea and marine otters, walrus, polar bear, three species of manatee, and dugong.

Despite the significant conservation gains since the passage of the MMPA nearly 50 years ago, many marine mammal populations continue to face declines due to habitat loss and other anthropogenic impacts such as boat strikes and entanglement in marine debris. The Service supports efforts to strengthen MMPA implementation and enhance conservation delivery for marine mammals, such as those in Title VII of the Ocean-Based Climate Solutions Act. We offer
the below comments on the sections in this title and look forward to working with the Committee on this and other marine mammal legislation.

**Section 701. Conservation of marine mammals adversely affected by climate change**
Section 701 directs the Administrator of the National Oceanic and Atmospheric Administration (NOAA) to designate a list of marine mammal species and stocks that may be negatively impacted by climate change and to develop climate impact management plans for the entities on that list. The Service supports the intent of this section to increase the consideration of climate change impacts in marine mammal management and conservation and recommends that this section direct coordination with the Service for those species under Service jurisdiction. All Service-managed stocks are already facing the effects of climate change, including loss of sea ice and changes in the range and abundance of important prey species. As such, the Service recommends that the listing process be struck from this section so that agencies can focus limited resources on developing and implementing measures to address the impacts of climate on marine mammals.

Section 701 also recognizes the inherent connection between climate impact management plans and similar plans under Section 115 of the MMPA (conservation plans) and Section 4 of the Endangered Species Act (recovery plans) and encourages the integration of such plans. The Service appreciates the Committee’s consideration of these complementary plans and recommends that the requirements of Section 701 be incorporated into existing requirements for similar plans under the MMPA and other conservation statutes to avoid duplicative efforts. Many of the components of climate impact management plans are already considered in existing species planning efforts. By incorporating the concepts of this section into existing management and recovery plans, we can achieve more effective and efficient conservation for marine mammals.

**Additional Marine Mammal Sections**
- **Section 702. Vessel speed restrictions in marine mammal habitat**
- **Section 703. Monitoring ocean noise for marine mammal protection**
- **Section 704. Grants for seaports to establish programs to reduce the impacts of vessel traffic and port operations on marine mammals**
- **Section 706. Grants to support technology that reduces underwater noise from vessels**
- **Section 707. Naval technology transfer for quieting federal non-combatant vessels**

The risks and challenges that marine mammals face due to climate change are exacerbated by other human-caused stressors, including vessel strikes and noise pollution. We have seen the harmful effects of these stressors on Service-managed species. Sea otters may alter their behavior in the face of noise pollution, with high levels of noise causing temporary and permanent hearing loss. Slow-moving manatees may be injured or killed by accidental collisions with watercraft, an
ongoing threat that the Service is working to reduce in coordination with state and local authorities.

Sections 702, 703, 704, 706, and 707 of the Ocean-Based Climate Solutions Act authorize NOAA and the U.S. military to pursue various studies, grant programs and regulations with the goals of reducing and mitigating the impacts of ocean noise and vessel strikes. The Service supports these goals and recommends that these sections be carried out in coordination with the Service and, when appropriate, the relevant state, Tribal, and local governments. Coordination among the many agencies responsible for marine mammal conservation is essential in order to provide the best management strategies and practices for marine mammals.

Title I – Blue carbon
Section 109. Federal coastal and marine blue carbon restoration and protections; funding
Section 109 directs the Service, the National Park Service, and NOAA to conduct coastal and marine restoration and protection activities to support blue carbon ecosystems. The Service manages extensive coastal and marine resources, including 760 million acres of Marine National Monument submerged lands and waters, and has vast experience in restoring and protecting coastal wetlands and ecosystems across the country. Many lands and waters of the National Wildlife Refuge System are strategically located along our coasts and estuaries where blue carbon ecosystems are located, and the Service’s Coastal Program provides key financial and technical assistance to federal, state, and local agencies as well as local communities for projects that have blue carbon co-benefits. As a result, the Service is well-positioned to execute the Service-related provisions of Section 109 and to further the goals of restoration and protection of our nation’s blue carbon ecosystems.

Conclusion
Warming from anthropogenic greenhouse gas emissions will accelerate the rate of climate change, which will in turn have significant consequences for people and natural resources across the globe. In order to address this growing threat, it is essential that we consider all available tools to build climate resilience for communities, species, and habitats. The Ocean-Based Climate Solutions Act recognizes the dual vulnerability and resilience of our coastal and marine resources and proposes, through the policies discussed above, to strengthen the Federal Government’s response to climate change through stewardship of these resources. The Service is committed to meeting the challenge a changing climate presents to fish and wildlife resources, and we look forward to working with this Committee and the Congress to enhance this important work.

https://doi.org/10.1371/journal.pone.0233888.