

**A LEGISLATIVE HEARING TO EXAMINE S. 2194,
THE COASTAL HABITAT CONSERVATION ACT
OF 2021, S. ____, THE STRENGTHENING COAST-
AL COMMUNITIES ACT OF 2022, S. 3069, THE
GREAT LAKES FISH AND WILDLIFE RES-
TORATION REAUTHORIZATION ACT, AND S.
3767, THE DELAWARE RIVER BASIN CON-
SERVATION REAUTHORIZATION ACT**

HEARING
BEFORE THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE
ONE HUNDRED SEVENTEENTH CONGRESS
SECOND SESSION
JUNE 15, 2022

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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED SEVENTEENTH CONGRESS

SECOND SESSION

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A LEGISLATIVE HEARING TO EXAMINE S. 2194, THE COASTAL HABITAT CONSERVATION ACT OF 2021, S. ____, THE STRENGTHENING COASTAL COMMUNITIES ACT OF 2022, S. 3069, THE GREAT LAKES FISH AND WILDLIFE RESTORATION REAUTHORIZATION ACT, AND S. 3767, THE DELAWARE RIVER BASIN CONSERVATION REAUTHORIZATION ACT

WEDNESDAY, JUNE 15, 2022

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
Washington, DC.

The Committee, met, pursuant to notice, at 10 a.m. in room 406, Dirksen Senate Office Building, Hon. Thomas R. Carper (Chairman of the Committee) presiding.

Present: Senators Carper, Capito, Cardin, Whitehouse, and Graham.

**OPENING STATEMENT OF HON. THOMAS R. CARPER,
U.S. SENATOR FROM THE STATE OF DELAWARE**

Senator CARPER. Good morning, everyone. I am happy to call this hearing to order.

We welcome our witnesses.

We welcome the jury sitting back here, all these young people in the audience. It is nice to see you guys.

Today, our Committee, the Environment and Public Works Committee, will examine four pieces of legislation. Collectively, they would enhance the ability of the U.S. Fish and Wildlife Service to restore but also conserve coastal habitats for the benefit of wildlife and people too.

The critical work implicated in each of these bills could not be more timely. According to the United Nations, we are experiencing an unprecedented global biodiversity decline. And extreme weather events are causing accelerated loss of coastal habitat, imperiling vulnerable species.

But that is not all. These coastal areas that many species call home also protect coastal communities, homes, businesses, and infrastructure alike. So by investing in coastal habitats, we are investing in local economies at the same time.

One of the bills we are examining today, the Coastal Habitat Conservation Act, would codify the Fish and Wildlife Service Coastal Program. This voluntary program provides technical and financial assistance to States, to Tribes, to landowners, and to other partners to support habitat conservation in coastal watersheds.

Since 2010, this program has enabled, just in Delaware alone, some 66 projects. For every Federal dollar invested, partners have contributed \$7, an impressive leveraging ratio.

I want to thank both Senator Cardin and Senator Graham, who will be joining us later, for their leadership on this legislation, and Senator Cardin in particular for encouraging us to hold today's hearing.

We will also consider legislation today pertaining to two regional Fish and Wildlife Service programs. The Great Lakes Fish and Wildlife Restoration Authorization Act would reauthorize the Service's Great Lakes Program. This program has provided funding for research and restoration projects in the Great Lakes since 1998. That is before a number of our guests out here today were born.

The Delaware River Basin Conservation Reauthorization Act would reauthorize the Service's Delaware River Basin Program. This program has successfully brought Federal along with State and local governments together with regional partners to identify, to prioritize, and to implement restoration activities within the Basin.

I would like to note that the Fish and Wildlife Service has done an exceptional job of getting this program off the ground since Congress authorized it in 2016. Recent grants from the Service are already being put to work in Delaware enhancing pollinator habitats and improving fish passage and restoring our wetlands.

Last but not least, today we will consider draft legislation that amends the Coastal Barrier Resources Act and codifies maps to add units to the Coastal Barrier Resources System. This program protects sensitive habitats, and in doing so saves taxpayers dollars by restricting the use of Federal funding in those areas.

The bipartisan Coastal Barrier Resources Act became law in 1982, the year I was elected to serve in the U.S. House of Representatives. It became law in 1982, in no small part due to the hard work of my predecessor, Congressman Tom Evans from Delaware. And I am glad to carry on his important work.

As I mentioned earlier today, the benefits of coastal restoration are well documented. After Hurricane Sandy, the Fish and Wildlife Service received funding for large scale restoration activities to remediate habitat damage and to improve resiliency. The Service spent some of this much needed funding to restore Fowler Beach in Prime Hook National Wildlife Refuge, one of our two national wildlife refuges in Delaware.

As a result of that project's completion more than 6 years ago, record numbers of piping plovers are nesting on our beaches. And the community resiliency benefits are just as impressive. The homes and infrastructure surrounding Fowler Beach which had flooded in nearly every major rain event in the years before the completion of this project no longer flood. That is what we call in our State a real win-win.

In addition to advancing the legislation before our Committee today, I believe we should also undertake these types of large scale restoration activities ahead of the next storm, instead of in response to it. Doing so would make our coastal communities even more resilient and better able to withstand extreme weather events in the face of a changing climate.

Just as our Committee has agreed that an ounce of prevention is worth a pound of cure when it comes to our goals for conserving species, the same is true of building resiliency in our Nation's coastal communities. The Fish and Wildlife Service has demonstrated that we can and we should tackle these important goals together. This is evident from their successful work not just in the First State but in many other States as well.

While what we have experienced in Delaware is the rule, not the exception. When we restore and conserve habitat, we also protect communities and support local economies. I hope that our colleagues and our distinguished panel of witnesses will highlight their similar experiences. And we look forward to hearing from all of you.

Before we do, though, let me turn to our Ranking Member, Senator Capito, for her opening remarks.

Senator Capito.

**OPENING STATEMENT OF HON. SHELLEY MOORE CAPITO,
U.S. SENATOR FROM THE STATE OF WEST VIRGINIA**

Senator CAPITO. Thank you, Chairman Carper, and thank all of our witnesses for coming today. I look forward to hearing from each one of you.

When considering our Nation's natural resources and all that our beautiful country has to offer, it is important to consider the importance of our coastal communities and foster programs that protect those resources while also supporting economic growth. We are lucky on this Committee to have much representation from our coastal States.

We are here today to examine a number of bills that would affect our coastal communities and the programs established to conserve and protect those areas. The Coastal Habitat Conservation Act of 2021 introduced by my colleagues, Senators Cardin and Graham, provides statutory authority for the U.S. Fish and Wildlife Coastal Program, as the Chairman said, originated in appropriations language in 1985.

The Coastal Program works through partnerships to protect, restore, and enhance important coastal areas that provide fish and wildlife habitat. I want to thank Senator Graham for inviting our witness Emily Cope, from the South Carolina Department of Natural Resources, for their support for partnership programs that encourage conservation of these areas.

Next on the agenda is Chairman Carper's draft legislative text, the Strengthening Coastal Communities Act of 2022, which would amend the Coastal Barrier Resources Act, or CBRA, and codify changes to the John Chafee Coastal Barrier Resources, CBRs, maps. In the past, these maps have been codified in a bipartisan manner. In 2018, 35 revised maps were adopted with the bipar-

tisan support of this Committee. That compilation of maps was the largest legislative update to the CBRs since 1990.

In addition to codification of maps, the legislation we are looking at today would make programmatic changes to the CBRA program. As we learn more about the proposed amendments to the CBRA, it is important to me that we maintain the bipartisan approach to updating CBRA that the Committee has followed in the past.

We will also consider the Great Lakes Fish and Wildlife Restoration and Reauthorization of 2021, which would reauthorize that underlying statute through fiscal year 2027 to fund projects to conserve Great Lakes fish and wildlife habitat.

Finally, we will consider the Delaware River Basin Conservation Reauthorization Act of 2022 that the Chairman spoke about, which would reauthorize the Delaware River Basin Restoration Grant Program through 2030 and makes a number of changes to the program. I think the Chairman is aware, we have made him aware, that we have heard some concerns on this bill, specifically, that it fails to address some of the regulatory overreach of the Delaware River Basin Commission.

The concerns are that commission has overstepped its intended role as coordinator and clearinghouse for State and Federal stakeholders in the Delaware Basin by taking actions to ban the development of natural gas in the commission's footprint, a troubling precedent. Indeed, the commission's claim to regulatory authority is rooted in a statute enacted before the passage of the Clean Water Act or even the creation of the EPA.

At a time when we are seeking to increase our natural gas production to meet domestic and international demands, it is worth the Senate reviewing whether the commission has assumed for itself a regulatory role that is out of step with our current environmental statutes and policy needs. As we examine each of the four pieces of legislation before us today, I look forward to hearing more about the programs that you support and working toward bipartisan solutions.

Again, I thank the Chairman for this hearing.

Senator CARPER. I have just spoken with Elizabeth Grace Mabry. She thinks we may be conflating two different items that have very similar names. But we will get to the bottom of that and try to straighten this out.

Senator CAPITO. Sounds good.

Senator CARPER. Thanks so much.

Before I introduce Mr. Guertin, our first witness on panel one, all by himself, I want to turn to our colleague without whom we probably wouldn't be here today.

Senator Cardin, thank you for your leadership on these issues.

**OPENING STATEMENT OF HON. BENJAMIN L. CARDIN,
U.S. SENATOR FROM THE STATE OF MARYLAND**

Senator CARDIN. To our Chairman and Ranking Member, thanks for scheduling the hearing on these four very important bills. I thank you.

One of the things I really enjoy about this Committee is that we do work together, Democrats and Republicans, to advance the

agenda of the Environment and Public Works Committee. And today is no exception.

I am very proud to partner with Senator Graham on the Coastal Habitat Conservation Act. I can point to so many areas where this has been beneficial in the Chesapeake Bay Watershed.

As the Chairman pointed out, this is a voluntary program that provides the services of Fish and Wildlife for the planning, protection, and restoration of public and private lands on our coastal habitat.

Mr. Chairman, I can point to so many examples of where this program has been instrumental in helping us achieve our objectives in the Chesapeake Bay Watershed. I could point to the fact that we have been able to deal with habitat restoration for Federal trust species; the DelMarVa fox squirrel is doing very well, thanks to the help of this program.

We can point to the fact that our nutria population on the Eastern Shore is just about zero, which is critically important to protecting our wetlands. We can point to wetlands restoration from Blackwater throughout our watershed. We can point to our coastal cities, including Annapolis, that have benefited from these programs. We can point to the oyster beds that are now coming back as a result of the help from these programs. There are so many examples that we could give.

I take pride because the Fish and Wildlife Service started with the Chesapeake Bay but it is now a national program and a very effective national program. This legislation would codify and authorize at a level slightly higher than the President's fiscal year 2023 budget. The fiscal year 2023 budget is \$16 million. We are suggesting reauthorizing it at \$20 million, growing to \$25 million.

I thank the Chairman and Ranking Member for their help in putting together this legislation, and I look forward to our witnesses.

Senator CARPER. Senator Cardin, thank you so much. Thank you so much.

We have two panels today. The first panel is a one person panel. And I want to welcome Stephen Guertin, who is currently serving as the Deputy Director for Program Management and Policy at the U.S. Fish and Wildlife Service. Mr. Guertin has been a public servant for over 30 years, almost all of his life. He started to work at the Department of Interior in 1989, and later the Fish and Wildlife Service, where he has held several leadership positions.

He also served in the United States Marine Corps for 8 years, and we want to thank you for your service, and thank you for joining us today. I am a retired Navy captain, and we have Dan Sullivan, who is from Alaska, who is a Marine colonel. So Navy and Marine Corps welcome you here today.

I like to say the Navy and Marine Corps have a friendly rivalry. I like to say different uniforms, same team. So we welcome you before this team here today.

You may begin your testimony when you are ready. The Committee will then proceed with asking you some questions before we move on to our second panel. Please proceed.

STATEMENT OF STEPHEN GUERTIN, DEPUTY DIRECTOR, PROGRAM MANAGEMENT AND POLICY, U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR

Mr. GUERTIN. Thank you, Chairman Carper, Ranking Member Capito, and members of the Committee. I am Steve Guertin, Deputy Director at the U.S. Fish and Wildlife Service. We appreciate the opportunity to testify today on three bills, as well as the discussion draft regarding the conservation of coastal habitats.

Our Nation's coastal habitats play a vital role in sustaining healthy populations of fish, wildlife, and plants. These habitats provide shelter and food to a diverse array of species. They serve as breeding grounds and nurseries for fish and shellfish and are important stopovers for migratory birds.

Coastal habitats are equally important for people. They support commercial and recreational fisheries, buffer communities against storms and sea level rise, improve water quality, and provide other valuable ecosystem services. These coastal habitats are threatened by climate change, rising sea levels, increasingly frequent and intense storms, and habitat loss. With population growth and urbanization projected to increase along our coastline, the people, assets, and natural resources exposed to these risks will only increase.

We at the Fish and Wildlife Service play a key role in protecting, conserving, and restoring these important habitats. We recognize the importance of amplifying our efforts to address these threats as well as the need for greater investment in coastal habitat conservation.

These bills and the discussion draft before the Committee today would take steps to address these needs, and we support these legislations. We support S. 2194, the Coastal Habitat Conservation Act, which would codify and authorize funding for the Service's Coastal Program. The Coastal Program is a voluntary, partnership based program that provides beneficial and financial assistance to States, Tribes, coastal communities, and other partners for habitat conservation in coastal watersheds. It leverages partner funds at a ratio of five to one, increasing the positive impact of every taxpayer dollar.

These projects result in many benefits for fish, wildlife, plants, and people. They help build resilience to the impacts of climate change, conserve Federal trust species, and improve habitat connectivity. They also provide lasting benefits to coastal communities and their economies by employing contractors, restoring coastal wetlands, supporting fisheries, improving water quality, and increasing opportunities for hunting and fishing.

We support S. 3069, which would reauthorize the Great Lakes Fish and Wildlife Restoration Act. This partnerlike grant program under the act has a successful track record of restoring and managing fish and wildlife resources and their habitats in the Great Lakes Basin. The program has provided over \$32 million in Federal funding to 193 projects. We have worked collaboratively with more than 100 organizations that have contributed about \$15 million in matching, non-Federal support.

We also support S. 3767, which would reauthorize our successful Delaware River Basin Restoration Program. This voluntary, non-regulatory program brings partners together across the Delaware

River watershed in pursuit of a shared vision: Restoring and protecting the Nation's watersheds' natural resources for the benefit of wildlife and people.

This program supports partner priorities of the watershed by awarding matching grants to on the ground conservation projects. Since 2018, we have awarded nearly \$27 million to 123 projects which have generated \$46 million in matching funds. These projects have helped restore fish and wildlife habitat, improve water quality, reduce flooding, and enhance public access and recreational opportunities.

Finally, we support the draft bill, the Strengthening Coastal Communities Act. The Coastal Barrier Resources Act, through its non-regulatory, free market approach, mitigates coastal hazards associated with climate change by removing Federal subsidies and incentives for development along our coastlines. This in turn reduces development pressures and conserves fish and wildlife and their habitats. The Coastal Barrier Resources Act has been highly successful in its 40 year history by reducing the intensity of development on these important coastal barriers, resulting in over \$9.5 billion in savings.

The draft bill would improve our administration of the Coastal Barrier Resources Act. For example, it would examine future application of the act to high hazard areas not included in the current CBRA system. The bill would also adopt our final recommended modernized maps for more than 450 coastal barrier resource system units, including those maps recently revised through our Hurricane Sandy remapping project. Adoption of these maps by Congress would be the single largest action to modernize the system since the law's enactment.

We support the draft bill and look forward to working with the Committee on technical changes to ensure the successful implementation of the act and the long term protection of these important coastal barriers that help keep our communities safe. We appreciate the Committee's interest in advancing coastal habitat conservation and restoration, and I would be pleased to answer any questions that you may have.

[The prepared statement of Mr. Guertin follows:]

Testimony of Stephen Guertin
Deputy Director for Policy, U.S. Fish and Wildlife Service, Department of the Interior,
Before the Senate Committee on Environment and Public Works on
S. 2194, the “Coastal Habitat Conservation Act of 2021”; S. 3069, the “Great Lakes Fish
and Wildlife Restoration Reauthorization Act of 2021”; S. 3767, the “Delaware River Basin
Conservation Reauthorization Act of 2022”; S. ___, the “Strengthening Coastal
Communities Act of 2022”

June 15, 2022

Introduction

Good morning, Chairman Carper, Ranking Member Capito, 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 three bills and one discussion draft bill regarding the conservation and protection of coastal habitats.

From the Chesapeake Bay’s salt marshes to the Great Lakes’ sand dunes to Alaska’s rocky shores, our nation’s coastal habitats play a vital role in sustaining healthy populations of fish, wildlife, and plants. These habitats provide shelter and food to a diverse array of species, including threatened and endangered wildlife like the Rufa red knot and loggerhead sea turtle. They serve as breeding grounds and nurseries for fish and shellfish and are important stopovers for migratory birds. Coastal habitats are equally important for people. They support commercial and recreational fisheries, buffer communities against storms and sea level rise, improve water quality, and provide other valuable ecosystem services.

The Service plays a key role in protecting, conserving, and restoring these important habitats through numerous programs mandated, authorized, and funded by Congress through legislation. We administer the Coastal Barrier Resources Act (CBRA), which, through its non-regulatory, free market approach, mitigates coastal hazards associated with climate change by removing federal subsidies and incentives for development along our coasts. This in turn reduces development pressures and conserves fish, wildlife, and their habitats. Our Coastal Program provides technical and financial assistance to partners in coastal areas across the country to advance non-regulatory, voluntary coastal habitat conservation on public and private lands. We also administer several regional programs, such as the Delaware River Basin Restoration Program and Great Lakes Fish and Wildlife Restoration Act. These non-regulatory, voluntary programs advance habitat restoration, fish and wildlife conservation, and public access in large coastal landscapes of great local and national significance.

However, given the magnitude of threats facing our coasts, it’s clear that we need to do more. Coastal habitats are threatened by climate change, rising sea levels, and increasingly frequent and intense storms, which can have cascading and cumulative impacts to species and their habitats. Development along our nation’s coasts 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 only increase.

We recognize the importance of amplifying our efforts to address these threats, as well as the need for greater investment in coastal habitat conservation. The bills and discussion draft bill before the Committee today would take steps to address these needs by improving the Service's administration of CBRA, examining future application of CBRA to high hazard areas not currently included in the John H. Chafee Coastal Barrier Resources System, codifying and authorizing funding for our Coastal Program, and reauthorizing regional coastal habitat conservation programs in the Delaware River watershed and in the Great Lakes. We support the bills and draft bill and offer the following comments for the Committee's consideration.

S. 2194, Coastal Habitat Conservation Act of 2021

S.2194 would codify the Service's Coastal Program and authorize appropriations for the program that would begin at \$20 million for Fiscal Year (FY) 2022 and increase over time to \$25 million for FY 2026. The Service supports S. 2194, which would strengthen the Service's authorities to continue this successful program.

The Coastal Program is one of the Service's premier voluntary habitat conservation programs. The program provides technical and financial assistance to State and Tribal agencies, coastal communities, conservation organizations, and other federal programs to conserve fish and wildlife habitat on public and private lands.

Coastal Program projects build coastal resilience to the impacts of climate change by improving the health of coastal ecosystems. They support the conservation of federal trust species and have contributed to the recovery and downlisting of 20 listed species. The program also supports natural and nature-based infrastructure by restoring saltmarsh and streams in coastal watersheds, coastal barrier islands, seagrass beds, and mangrove forests. These projects provide lasting benefits to coastal communities by employing contractors and stimulating local economies, restoring coastal wetlands that support commercial and recreational fisheries, improving water quality, and increasing opportunities for hunting, fishing, and wildlife observation.

Since 1985, the Coastal Program has collaborated with 6,400 partners to protect 2.1 million acres of habitat and restored nearly 600,000 acres of habitat and over 2,600 stream miles in coastal watersheds. Through these partnerships, the program leverages partner contributions at a ratio of 5:1 or greater, significantly increasing the positive impact and reach of the program.

The Service supports S.2194, which would codify the Coastal Program's approach to voluntary, collaborative conservation—a proven and effective strategy to achieve shared conservation goals.

S. 3069, Great Lakes Fish and Wildlife Restoration Reauthorization Act of 2021

S.3069 would reauthorize the Great Lakes Fish and Wildlife Restoration Act (GLFWRA) program. The GLFWRA provides assistance to states, Native American Tribes, and other interested entities to encourage cooperative conservation, restoration, and management of the fish and wildlife resources and their habitats in the Great Lakes Basin.

Since 1998, GLFWRA has provided \$32.8 million dollars in federal funding to 193 restoration and regional projects. The Service has worked collaboratively with more than 100 organizations that have contributed nearly \$15.1 million in matching non-federal partner support, equating to \$47 million worth of benefits to Great Lakes Basin fish and wildlife resources. Additionally, since FY 2010, GLFWRA has received supplemental funding from the Great Lakes Restoration Initiative. Since the last reauthorization in 2016, the Service has received grant proposals requesting more than \$59.6 million in funding.

S.3069 reauthorizes a partner-led grant program with an excellent track record of success. This success is in large part due to the Proposal Review Committee (PRC), which is responsible for reviewing, scoring, and ranking each project proposal. The PRC is comprised of two representatives of each of the State Directors from the Great Lake states and several Native American communities. The PRC then provides recommendations to the Service's Midwest Regional Director on which proposals should be funded and implemented.

Some successful projects include developing ecosystem management tools, restoring wetlands, restoring aquatic habitat, and ecological monitoring and modeling. A recent project in Minnesota funded work on the conservation and management of common terns by analyzing thirty years of nesting and banding data from colonies on Lake Superior. Also recently funded is a wetland restoration project in Ohio to restore and enhance 224 acres of wetlands to improve wildlife habitat and hydrologic functioning in the historic Bloomfield Swamp. The swamp was converted to farmland, impacted by agricultural practices, and lost hydrological function caused by creating ditches. Projects like these have contributed important information and actions toward meeting Great Lakes restoration goals.

The Service supports the reauthorization of GLFWRA to continue restoration and management of the fish and wildlife resources and their habitats in the Great Lakes Basin.

S. 3767, Delaware River Basin Conservation Reauthorization Act of 2022

The Service supports S. 3767, which will reauthorize the Delaware River Basin Restoration Program (DRBRP) through Fiscal Year (FY) 2030. This legislation would make several changes to the DRBRP's grant program, including increasing the federal cost share for projects that serve small, rural, or underserved communities. S. 3767 would also authorize the Secretary to waive the non-federal cost share if a grant recipient is unable to pay or would face significant financial hardship in paying the non-federal match. Finally, S. 3767 would repeal a prohibition on the use of program funds for land acquisition.

Following the enactment of the Water Infrastructure Improvements for the Nation Act (P.L. 114-322) in 2016, the Service established the DRBRP to develop a comprehensive and collaborative approach to restore and protect the Delaware River watershed. This voluntary, non-regulatory program brings partners together across the four-state watershed in pursuit of a shared vision: restoring and protecting the watershed's natural resources for the benefit of wildlife and people. Guided by a partner-developed strategic framework, the DRBRP prioritizes conservation activities in four key areas: restoring fish and wildlife habitat, improving water quality, reducing flooding and runoff, and enhancing recreational opportunities and access for stakeholders.

The DRBRP's grant program, the Delaware Watershed Conservation Fund (Fund), helps implement these priorities by awarding matching grants to on-the-ground conservation projects. Since 2018, the Fund has awarded nearly \$27 million to 123 projects, which have generated \$46 million in matching funds. This amounts to a total conservation impact of \$73 million.

Recent awards have supported efforts to protect Eastern brook trout habitat through invasive species management in New York; increase cover crops in rural Kent County, Delaware, to improve water quality and habitat for migratory birds; conduct a watershed assessment study and develop a restoration plan to benefit an environmental justice community in Avondale Borough, Pennsylvania; and develop a water trail and recreational programming in urban Camden, New Jersey. These projects have resulted in far-reaching benefits for fish, wildlife, and people. In total, the DRBRP has helped partners restore 100 miles of stream habitat and 500 acres of wetlands and open over 5,000 acres of land and water to new or improved public access.

Building off this history of success, S. 3767 would enable continued progress toward shared conservation goals in the Delaware River watershed. The DRBRP demonstrates the power of collaborative, landscape-scale conservation in tackling 21st century conservation challenges, and we appreciate the bill sponsor and the Committee's continued support for this important program.

The Service also appreciates this bill's focus on ensuring equitable access to funding for small, rural, and underserved communities. The non-federal cost share requirement for the DRBRP's grant program can serve as a barrier to participation for many of the communities that would most benefit from this funding. Watershed partners have already begun prioritizing investments that foster equity and justice, and this bill's changes to the cost-share requirements would complement and advance that ongoing work.

The Service would welcome the opportunity to discuss with the bill sponsor and the Committee an additional suggested edit to H.R. 6949 regarding P.L. 114-322's prohibition on the net gain of Federal employees for the administration of the DRBRP.

S. ____, Strengthening Coastal Communities Act of 2022

The Department is providing preliminary views on this discussion draft and acknowledges we may have additional comments after we have an opportunity to review an introduced bill. The Strengthening Coastal Communities Act of 2022 would enhance the Coastal Barrier Resources Act's (CBRA, Act) role in mitigating the coastal hazards associated with climate change, reducing development pressures along our coasts, and conserving fish, wildlife and their habitats. The draft bill would make several amendments to the law to expand its geographic scope, correct past mapping errors, and enhance compliance with and awareness of CBRA. The draft bill would also adopt the Service's final recommended modernized maps for more than 450 John H. Chafee Coastal Barrier Resources System (CBRS) units, including those maps recently revised through the Service's Hurricane Sandy Remapping Project. Adoption of these maps by Congress would be the single largest action to modernize the CBRS since the law's enactment 40 years ago. The Service supports the Strengthening Coastal Communities Act of 2022 as outlined below, and

looks forward to working with the Committee on technical changes to the provisions included in this draft bill and other improvements to the Act.

Overview of the Coastal Barrier Resources System

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 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 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 free-market approach to conserve and maintain these hurricane-prone, biologically-rich coastal barriers. Over its 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 areas.ⁱ Another study on the effects of CBRA on coastal protection infrastructure found that parcels within the CBRS have 78 percent lower odds of being armored with structures such as seawalls.ⁱⁱ CBRA has also been successful in saving taxpayer dollars; reducing coastal disaster expenditures by an estimated \$9.5 billion between 1989 and 2013.ⁱⁱⁱ

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.

Hurricane Sandy Remapping Project

Hurricane Sandy made landfall along the northeast coast of the United States in October 2012 and caused nearly \$75 billion in damages as the fourth costliest storm in U.S. history. Flooding caused widespread damage to structures, critical facilities, and infrastructure in New Jersey and New York, the two states hit hardest by the storm. More than 600,000 housing units were destroyed; public transit systems were extensively damaged with flooding of a rail operations center, tunnels, and the subway system; local docks, marinas, restaurants, and fish processing plants suffered millions of dollars of damage; and many drinking water systems and wastewater treatment plants were affected by power loss and damages. The storm surge and coastal flooding associated with Hurricane Sandy also caused damage to natural resources including the eroding of dunes, beaches, and existing natural infrastructure; the breaching of islands; the washing of sand and sediment inland; and the inundation of wetland habitats. However, the natural resources in Hurricane Sandy's path endured the effects of the storm better than the built environment and in many areas protected developed areas from more severe damage.

Devastation in the wake of Hurricane Sandy revealed a need to address the vulnerability of populations, infrastructure, and resources at risk throughout more than 31,200 miles of the North Atlantic coastal region. On January 29, 2013, President Obama signed the Disaster Relief Appropriations Act (Pub. L. 113-2), which provided approximately \$50 billion in funding to support rebuilding. Funded through this disaster relief appropriations, the Service undertook a comprehensive effort to modernize the CBRS maps for the nine states along the Mid-Atlantic and New England coasts most affected by Hurricane Sandy: New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, and Virginia. This remapping project includes 42 percent of the total existing CBRS units and 16 percent of the total existing acreage of the CBRS. These final recommended maps were transmitted to Congress on April 5, 2022, with the Service's *Report to Congress: John H. Chafee Coastal Barrier Resources System Hurricane Sandy Remapping Project*.

Map modernization is important to ensuring the durability and long term integrity of the CBRS. The Service and Congress have worked together over the last two decades to make significant improvements in the CBRS maps. The completion of the Hurricane Sandy Remapping Project is a major milestone in that process. Adoption of the revised maps produced through this project will correct decades-old mapping errors affecting more than 900 homes and other structures while at the same time adding hundreds of thousands of acres of qualifying relatively undeveloped areas to the CBRS.

Title I – Coastal Barrier Resources Act amendments

Section 101. Undeveloped coastal barrier

The Service supports Section 101, which revises the definition of an “undeveloped coastal barrier” to remove restrictive language regarding the impact of “man’s activities” on coastal barriers. Section 101 also modifies the definition of a coastal barrier to more explicitly address sea level rise.

Section 102. Coastal hazard pilot project

The Service supports Section 102, which directs the Service to conduct 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 might 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 comprehensively assess and identify such areas and add them to the CBRS under certain conditions. This could be a key step for the nation to enhance coastal resiliency for the longer term.

Section 103. Require disclosure to prospective buyers that property is in the CBRS

Section 103 requires 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. Making buyers aware of a CBRS designation is common sense and good government.

However, the Service does not believe that Section 103 as currently written would have the desired effect, as it would require the sellers of real property to first be aware of existing CBRS designations before they could make the required disclosure to the buyer (and subsequently report the disclosure to the Secretary). There are many circumstances in which sellers are sincerely unaware of a CBRS designation affecting their property, particularly in situations where the land is vacant (and thus the seller may have never sought federal flood insurance or other forms of federal financial assistance). Sellers may also be unaware of CBRS designations if they do not have a mortgage or if their home falls outside of the Special Flood Hazard Area. In either of these cases, there is no mandatory purchase of flood insurance requirement and property owners may not be aware that federal flood insurance is unavailable for their home. Additionally, as there is no penalty for non-compliance with Section 103 as proposed, it is not clear what the incentive would be for sellers to make such disclosures or what the recourse would be for buyers who do not receive the required disclosures.

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. This type of requirement would not be overly burdensome because it would require that sellers in certain communities affected by CBRA (a list of which is maintained on the Service's website) provide potential buyers with a pamphlet describing the CBRA restrictions on federal expenditures and financial assistance and providing information regarding how to determine whether a property is within the CBRS so that buyers would be better positioned to conduct their own due diligence. This model would also ensure that this information is provided before the contract is ratified to avoid any surprises at the closing table. If such a provision were enacted and sufficient resources were provided, the Service could conduct outreach to real estate agents and affected communities to facilitate implementation.

Section 104. Improve Federal agency compliance with CBRA

The Service supports Section 104, 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 104 also directs affected agencies to update their regulations and guidance, as necessary, to comply with CBRA. Most of the existing regulations related to CBRA were promulgated decades ago and warrant updating to ensure consistency with the law and to clarify agency policies and procedures for implementing CBRA.

Section 105. Excess Federal property

The Service supports Section 105, 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. This is another common sense and good government provision. The federal government should not be disposing of undeveloped coastal barrier lands without a CBRS designation being considered and easy to apply, when appropriate.

Section 106. Emergency exceptions to limitations on expenditures

The Service supports Section 106, 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.

While we support this change, it is critical to be clear about the meaning of the term “immediate emergency.” The types of projects undertaken under this exception should include measures necessary to mitigate catastrophic human health and safety impacts, such as impending damage to a nuclear facility or wastewater treatment plant that is at immediate risk. Likewise, our view is that life-saving measures such as road barricades, search and rescue efforts, urgent repairs to utilities or home heating and cooling systems, and the use of temporary measures after a storm such as blue roofs would be permissible as an “immediate emergency”. It is the Service’s view that this emergency exception should not be used to facilitate federal expenditures for property protection activities that exceed the scope and needs of the immediate emergency. For instance, it should not be used for the purpose of shoring up eroding beaches in front of homes that are predominantly secondary residences where the risk is inherent and increasingly foreseeable given the intensifying effects of climate change along the coast. In short, actions that would not be clearly and reasonably be allowable but for an immediate emergency situation should not be

undertaken. The Service would be happy to assist the Committee and bill sponsor to ensure that we can work with affected agencies to determine what constitutes an “immediate emergency.”

Section 107. Authorization of appropriations

The Service supports Section 107, which reauthorizes CBRA through 2027 at an increased level. Fulfillment of this section will better position the Service to help plan for and 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 Opportunity for Enhancement of CBRA

The Service proposes the following additional amendment to CBRA to complement and enhance the efforts contained in the Strengthening Coastal Communities Act of 2022:

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 of CBRA to allow the Service to administratively add to the CBRS coastal barrier areas that are offered federally-funded buyouts under existing or potentially future programs and authorities by other agencies such as the U.S. Army Corps of Engineers or the Federal Emergency Management Agency. 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.

Title II – Changes to John H. Chafee Coastal Barrier Resources System maps

The Strengthening Coastal Communities Act of 2022 would adopt all maps developed through the Hurricane Sandy Remapping Project, as well as final recommended maps that address mapping errors and make technical corrections for certain CBRS units in Florida, Louisiana, South Carolina, North Carolina and Alabama. 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. The Service supports the adoption of these maps through this draft bill.

We note that 15 of the maps included in Title II were produced in 2015 and 2016. Because coastal barriers are subject to continual geomorphic change and development conditions on the

ground are also subject to change, a review of the final recommended boundaries against updated aerial imagery is recommended. The Service stands ready to conduct such a review to ensure that no changes are necessary before these particular maps are adopted into law. Additionally, the Service recommends that the draft bill clarify that the intended effective date on new flood insurance prohibitions for any additions to the CBRS is the date the revised maps are adopted by Congress through legislation. The Service is prepared to work with the Federal Emergency Management Agency to determine how to proceed with applying the flood insurance restriction for new construction or substantial improvements or damage in areas added to the CBRS and grandfathering existing structures.

Summary

Consistent with the original intent of CBRA, this bill updates the law to more directly address the impacts of climate change, which is needed to ensure that the long term conservation of fish, wildlife, and other nature resources may be achieved. Sea level rise will continue to be a driver of changes in coastal habitat and species distribution and the presence of developed shorelines behind many of these habitats will prevent natural barrier island overwash and migration landward in response to sea level change. CBRA is a tool that can help to ensure that federally-subsidized structures are not constructed in these areas where natural processes are critical to the continued existence of coastal barrier ecosystems and the species that they support.

Since Hurricane Sandy made landfall, numerous hurricanes and other named storms have made landfall along the U.S. coasts, causing loss of life and hundreds of billions of dollars in damage to property and infrastructure. Rising sea levels will exacerbate existing vulnerabilities and expose many more coastal communities to chronic high tide flooding, higher storm surges, and associated emergency response costs over the next few decades. We are seeing evidence of this in events such as the recent collapse of several homes into Cape Hatteras National Seashore, with many other structures poised to follow. These home collapses have littered miles of the beaches and nearshore waters of the national seashore with wooden debris that contain exposed nails, wires, broken and exposed septic systems and other hazardous materials. Such events will continue to occur along our coasts unchecked in the absence of a coordinated local, state, and federal effort to discourage new development in dynamic coastal areas and to consider how to facilitate future retreat from the coastlines in a way that helps save lives and minimizes federal expenditures and environmental contamination.

Conclusion

We appreciate the Committee's interest in advancing coastal habitat conservation and restoration. Ensuring the long term health of our coasts is vital to the wellbeing of fish, wildlife, plants, and people, and the Service is committed to working collaboratively with partners to conserve these important habitats. Thank for your interest in the Service's important conservation mission. We look forward to discussing these views and working with you and the sponsors on these and future legislative efforts.

ⁱ Kyle Onda et al., "Does removal of federal subsidies discourage urban development? An evaluation of the US Coastal Barrier Resources Act," PLoS ONE 15, no. 6 (June 2020): e0233888, <https://doi.org/10.1371/journal.pone.0233888>.

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- ⁱⁱ Jordan Branham, Kyle Onda, Nikhil Kaza, Todd K. BenDor, David Salvesen, “How does the removal of federal subsidies affect investment in coastal protection infrastructure?”, *Land Use Policy*, Volume 102 (March 2021): 105245, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2020.105245>.
- ⁱⁱⁱ Andrew S. Coburn and John C. Whitehead, “An analysis of federal expenditures related to the Coastal Barrier Resources Act (CBRA) of 1982,” *Journal of Coastal Research* 35, no. 6 (November 2019): 1358–1361, <https://doi.org/10.2112/JCOASTRES-D-18-00114.1>.

Senator CARPER. Good. Thanks for that testimony. Thanks again for your service in uniform and civilian life, and for your leadership today.

I want to start with a question dealing with the relationship between the Fish and Wildlife Service and the National Fish and Wildlife Foundation. The Delaware River Basin Conservation Act receives appropriations, as you know, through the U.S. Fish and Wildlife Service, and the National Fish and Wildlife Foundation administers grants under that act through a cooperative agreement with the Service.

My question is this. Would you elaborate on the importance of this relationship with National Fish and Wildlife Foundation? How does your partnership with that foundation help leverage additional investment in conservation?

Mr. GUERTIN. Thank you for your question, Mr. Chairman.

We have a very unique mission with the Fish and Wildlife Service. It tells us to work with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people. And we take that model and that mission to heart. Our work with the National Fish and Wildlife Foundation is an example, a great example of collaborative, voluntary, non-regulatory conservation. And we use it to high advantage and great success in the Delaware Basin.

As a matter of fact, Congress saw the effectiveness of this program and appropriated an additional \$5 million a year for the Bipartisan Infrastructure Law for us also to use for this successful partnership. We both bring our expertise, our capacity, our networks, and our hard working employees, as well as those of our partners, to the mission, and collaborate effectively. The match that we are getting out of this partnership is very, very impressive. We have awarded about \$27 million and the matches come in at \$48 million.

Senator CARPER. Say that again.

Mr. GUERTIN. We at the Federal level have used about \$27 million of our appropriated dollars, and the match, led by the foundation, has brought in another \$47 million. So total capacity out there is enormous, and it is all done on a voluntary, non-regulatory approach. And so we find the partnership highly effective and look to it to guide some of our conservation work in other regions of the country as well.

Senator CARPER. I like to say teamwork makes the dream work. It is certainly true in this case as well.

Second question. The Fish and Wildlife Service is known as a regulatory agency to a lot of people. The legislation before us today supports non-regulatory, voluntary partnership based conservation. In my experience, the Fish and Wildlife Service embraces this approach whenever possible.

My question is, would you elaborate on the effectiveness of this approach when it comes to habitat conservation?

Mr. GUERTIN. Thank you, Mr. Chairman. We are all in when it come to non-regulatory, voluntary approach to habitat conservation. We have many authorities under the Fish and Wildlife Coordination Act, legislation that encourages us to work with partners across the landscape.

In my experience, when we can help develop a shared vision amongst all partners, States, Tribes, private sector, military, private industry, and others, and we each bring our advocacy, our capacity, and our hard working folks to the table, we can accomplish great strides for conservation. Our administration, our leadership, Director Williams and others, are encouraging us to focus where we can make the most significant impacts with limited dollars.

This collaborative approach is one way and one approach that helps us do that. And we can see these types of results in Delaware, in the Chesapeake Bay, in the Great Lakes, in the prairie pothole region and other parts of the country.

Senator CARPER. Thank you.

One last question, then I will yield to Senator Capito. My staff knows two of my favorite words are "for example." I love examples. I use a whole lot myself. But would you share with our Committee today some examples of how the legislation before us supports the conservation and recovery of threatened and endangered species?

Mr. GUERTIN. Thank you for your question, Mr. Chairman. These legislative vehicles will give an enormous amount of support and capacity for the Fish and Wildlife Service to deliver our mission. These are the kinds of tools we can use in our joint quest to bring species recovery or to head off a potential listing.

A great example is our work with States and others on the salt marsh sparrow in the Chesapeake Bay area. These small birds are threatened by sea level rise. And we have seen about an 85 percent decline in them. So we are in a race against the clock now using voluntary conservation to head off a potential listing. It is all about voluntary cooperation.

In the Delaware River, we have done a lot of proactive work on the bog turtle. In the Great Lakes, we have done a lot of work on piping plover restoration. We have a lot of positive, cooperative conservation for grassland nesting birds, monarchs and other pollinators. Matter of fact, there will be a big summit or conference here on monarch conservation next week in the capital as well.

Then Senator Cardin talked a little bit about some of our other success stories in conservation with the DelMarVa squirrel and nutria eradication in the Chesapeake Bay. We led an effort involving a lot of partners, and were able to eradicate this invasive species from the ecosystem. We have now turned our efforts to other parts of the country where unfortunately, they have started to show up.

So these pieces of legislation will do an enormous amount of good to further give the Fish and Wildlife Service authorities and funding levels to go after this mission with our partners.

Senator CARPER. Those are good examples.

Before I yield to Senator Capito, I just shared with her a note handed to me by a member of our staff. And the note says that Ranking Member Capito raised concerns regarding the Delaware River Basin Commission, which involves, as you know, the U.S. Army Corps of Engineers and the EPA. My question is, could you confirm for us that this commission is separate and apart from the Delaware River Basin Conservation Act, which is a voluntary, non-regulatory Fish and Wildlife Service program?

Mr. GUERTIN. To the best of my knowledge, yes, Mr. Chairman, they are two separate and distinct organizational entities.

Senator CARPER. I will ask you to respond to that in greater detail for the record.

Then we will talk some more later.

Senator CAPITO. OK.

Senator CARPER. Thank you.

Senator Capito.

Senator CAPITO. Thank you.

Thank you, Mr. Guertin, for being here with us today, and your long years of service at the Federal level.

When you are talking about the coastal program, and you have talked about partnerships, the Chairman was talking about the foundation, how do you weave that into private landowners and those kinds of other partners that could be involved or would be affected by what you might be moving forward with at the coastal program?

Mr. GUERTIN. Thank you for your question, Senator. We are talking about non-regulatory, voluntary programs here. And that is an approach we try to employ whenever we can. We try to establish a vision for a landscape. We reach out and work very closely with our State counterparts, State fish and game agencies, the Tribes, and other jurisdictions.

Then with private landowners, we have several effective programs, Partners for Fish and Wildlife, our private lands program, or the coastal program, where we build trust and confidence up over time, some of it at the kitchen table, some of it at local forums, some of it working with the Farm Service Agency and others to try and generate interest in conservation.

In many cases, private landowners approach us. We can use these programs as a front porch for people to talk about a shared vision, and then work with them on fulfilling some of their conservation needs as well as some of ours.

But we really use a model of trying to bring people to the table and look to convening authorities, many of which are already in existence. And we can just turn to those and bring some of the capacity, and bring capacity from other Federal agencies like Farm Service Agency and RCS, and others and some of the BIL funding is a great example as well, to bring it to the table and pursue a shared vision for conservation on the landscape.

Senator CAPITO. Great, thank you. That is good.

In considering the Coastal Habitat Conservation Act, are there changes to the program that you think would improve its implementation? In every program, not just this one, but any program, in any bailiwick, certainly we want to eliminate any kind of possibility of duplicative programming that might be coming out of one pocket but serving the same purpose. It sort of dilutes the purpose if you keep separating it out into different programs.

Do you have any suggestions there?

Mr. GUERTIN. We see the Coastal Program authorized under the Coastal Habitat Conservation Act as pretty effective right now. We have a lot of flexibilities. We believe getting it codified with its own authorities would be enormously helpful going forward. That will give us kind of a stronger mandate. Setting these new fund targets or authorized funding levels will help us internally with the Department, OMB, advocating for budget increases, and we think it

will give Congress a lot more oversight, getting clearer reporting and chain of command from us into how we are executing the program on the ground.

We work very closely with this program and our Partners for Fish and Wildlife Program, private lands program, to try and have a more consistent approach on the landscape. And our field employees are great. They take off the bowling shirt, and when landowners and others come up to talk to them, they are not representing the Coastal Program or the Partners Program. They are representing the Fish and Wildlife Service and the consortium of land managers on the landscape to try and hammer out that shared vision and try to forge common sense solutions going forward.

Senator CAPITO. Thank you. Just for my own education here, you are talking about, we codified the maps, I said in 2018. You said this is 400 maps that would be codified, the most ever.

How does that affect what you do?

Mr. GUERTIN. Thanks for your question, Senator. This Hurricane Sandy remapping project, as well as the smaller units we updated in about six other States are an enormous undertaking. About a third of the acreage of the CBRA will be impacted as well. It is really going to provide a lot of certainty and answer a lot of questions to homeowners who have advocated for several years, they were erroneously included in the CBRA boundaries. Using new technology, we were able to clean up some of those.

It is also going to give Congress a clean slate to start the program afresh with more consistent interpretation and application of where the delineation of the boundaries is. And it actually adds several hundred thousand acres as well to CBRA, which will further provide additional strong natural habitat to resist storms, absorb a lot of that energy, provide great habitat.

So it is a revolutionary accomplishment and I think a game changer for coastal conservation if Congress were to move forward and enact this legislation and codify these map revisions into law.

Senator CAPITO. OK. Final question. Would that be equivalent to, say, a FEMA flood map, or something of that nature? Inland, that is what we deal with.

Mr. GUERTIN. What our maps do, Senator, if they are enacted into law, is they delineate the boundaries of the Coastal Barrier Resources Act. If any acreage or structures are included by those, they are not eligible for Federal flood insurance.

Senator CAPITO. I see.

Mr. GUERTIN. They can still go ahead and develop, but they have to use non-Federal funding or seek insurance elsewhere. So it is a marketplace disincentive—

Senator CAPITO. There are interplays with that.

Mr. GUERTIN. Yes. Interplays with both of those, yes.

Senator CAPITO. Thank you.

Senator CARPER. Thank you.

Thank you, Senator.

We have been joined by someone who thinks and talks and works a lot on coastal issues. He has been one of our leaders on this issue.

Sheldon, thank you for joining us. You are recognized.

Senator WHITEHOUSE. My pleasure, Chairman. Thank you, and thank you to the witness for joining us.

With respect to the Strengthening Coastal Communities Act, the administration of it is by Interior with consult to the Army Corps, NOAA, and FEMA. And I would propose that the Coastal Zone Management Act agencies at the States be included in that consultation. The State agencies are effectuating the Federal CZMA policies on behalf of Congress.

And at least in the case of Rhode Island, they do a far, far, far better job of mapping risk than FEMA flood maps have. FEMA flood maps have proven defective over and over again in a great variety of ways, the most flagrant of which is probably refusing to anticipate the realities of sea level rise and assuming static state with no scientific evidence to support that assumption.

So I think it is really important that CZMA agencies be added, and would make that recommendation to the extent you have input into that process.

More generally, I just wanted to flag the importance of funding for coastal resilience. We are, in Rhode Island and elsewhere, seeing really remarkable changes happening along our coasts. We are seeing sea level rise. Again, thanks to the CRMC mapping, we can understand what it means for Rhode Island in the future. We are going to have to redraw our map. Mainland areas will become islands; we turn into an archipelago in many respects. And that is an enormous, enormous change to burden a State with. We need resources to managing that coming hazard.

We are seeing ocean heating. That is causing our fisheries to go into complete uproar. Invasives coming in, longstanding fisheries departing. That creates enormous upheaval in communities based around fisheries.

We are seeing globally massive amounts of ocean acidification for reasons having to do with Pacific hydrology. It has been worse on the West Coast first. But we are seeing industries like shellfish aquaculture being crushed by the ocean water in which they try to grow the small oysters and clams becoming so acidic that it kills the small oysters and clams. So they have to buffer their entire intake in order to get around the acidification of the waters. We are seeing the terapod, which is a foundational species of the ocean ecosystem, experiencing massive shell damage when sampled offshore.

Of course, ocean storms are dialed up by heavier, higher ocean surface temperatures. We are seeing higher ocean surface temperatures. So we are seeing far worse storms, which then rolls back into the problem of bad FEMA mapping when you look at what happened to Texas and some of these recent hurricanes that have come ashore there, where more than half of the flooding happened in areas that FEMA had failed to identify as flood prone.

So we have a mess on our hands, and it is going to take real resources to coasts to get around that. I make that point often, but I wanted to make it again here. We see it, for instance, in the Land and Water Conservation Fund, which ought to be renamed the Upland and Freshwater Conservation Fund, because of where it directs its attention. Luckily, we are developing an Oceans and Coastal Fund to deal with coasts and saltwater. We are increas-

ingly able to fund that. But it is a stepchild compared to the Upland and Freshwater Conservation Fund.

We are still pursuing with the Army Corps of Engineers why it is that the Inland and Coastal Flooding Fund, depending on the year, spends 20 times as much on inland flooding as coastal flooding, or 100 times as much on inland than coastal flooding. So our coastal communities are facing really unprecedented risks and hazards. I encourage you to continue to bear down on these issues and particularly to the extent you deal with Interior and the Land and Water Conservation Fund and the Army Corps and its flooding fund, let's try to figure out why it is that coasts are disfavored so badly in those.

Mr. Chairman, my time has pretty much expired. But if the witness would like to make a comment, I would be happy to entertain his comment, and I appreciate his service.

Mr. GUERTIN. Thank you for your statement, Senator. I appreciate your support for these three bills and the draft legislation.

Just for the record, I would note in addition to these coastal related programs, we have a lot of other programs that deal with oceans and coasts, 180 of our National Wildlife refuges that encompass about 750 million acres of submerged or terrestrial and underwater ecosystems are a part of that. We do a lot of work in our five National Marine monuments, interjurisdictional fisheries work, migratory birds, and others.

So if you look at the whole portfolio of programs U.S. Fish and Wildlife is entrusted to manage, we have a lot of interest and support for oceans and coastal programs, and continue to keep them a priority. We will do our best going forward to make sure the Land and Water Conservation Fund takes into account some of your concerns about the allocations made to inland acquisition or easements as opposed to coastal packages as well. And the Migratory Bird Conservation Fund and others, because there are a lot of packages of funding that are deployed for conservation.

Senator WHITEHOUSE. I think if we can continue to support, Mr. Chairman, the Coastal Fund, which got, for instance, \$492 million, the biggest allocation it has ever received, in the Bipartisan Infrastructure Bill, and we have other plans for additional revenues, then we don't have to get into a fight between coastal and upland and saltwater and freshwater. We grow the pie in ways that support coastal communities without having to take back the enormous largesse that the Land and Water Conservation Fund sends to upland and freshwater resources.

Thank you.

Senator CARPER. Thank you very much, Senator Whitehouse.

I have at least one more question I would like to ask. It deals with proactive coastal conservation. In my opening statement, I talked about the successful restoration of Fowler Beach, which is a part of the Prime Hook National Wildlife Refuge. This was not a small project. This was a huge project. The cost was about \$38 million, which is enormous. Considering the community flood protection and the habitat resiliency benefits, the return on investment is also substantial.

The Fish and Wildlife Service undertook the Fowler Beach restoration project after Hurricane Sandy had caused such damage up

and down the East Coast, but especially in New Jersey and Delaware and Maryland. The reality is that the project was long overdue.

Do you think the Fish and Wildlife Service could and should do more projects like this one proactively instead of retroactively?

Mr. GUERTIN. Thank you for your question, Mr. Chairman. To go back to one of my earlier statements, our leadership team wants us to focus our efforts where we can make the most significant impact. Sometimes that requires us to pull together or bundle several funding streams to go after a larger ecosystem or watershed based restoration or conservation action.

So we are certainly taking a look at some of those. We can point to congressional leadership on passing the recent Bipartisan Infrastructure Law. A lot of the funding capacity that came to us was specifically for large scale ecosystem restoration on a geographic scale, Delaware River, Lake Tahoe, Klamath Basin, and the National Fish Habitat Passage Program as well.

So yes, we are certainly taking a look at those. A lot of the lessons learned with Fowler Beach in Delaware can be taken and used in other geographies of the country as well. But these big, larger scale projects require bundling funding from elsewhere. And so we always have to balance that out with the needs of smaller scale projects or other needs as well.

I look forward to working with you and the Committee as we move forward with your deliberations on our pending budget request for 2023. It includes a lot of funding to do this kind of work, including for the Coastal Program that is under congressional consideration right now. That would fund some more of that kind of work.

Senator CARPER. Good. As you know, we have a number of committees and subcommittees that are meeting simultaneously. So our members are engaged in other places; they will be coming and going throughout. I am not sure that during the time you are here we will be joined by another one of our Committee members.

I am going to give you an opportunity, since we have a minute or two here, is there anything else you would like to mention in terms of a question maybe you weren't asked, that you would have liked to have been asked, or something else you would like to say just as a closing thought?

Mr. GUERTIN. Thank you for that opportunity, Mr. Chairman. Just to reaffirm our continued interest and support for what you are doing here. We really appreciate the Committee evaluating these three bills as well as the draft bill. We stand ready to provide any kind of support on a technical or policy level that will help your deliberations.

We think these four pieces of legislation will be force multipliers for us. They will give us needed authority and authorization for appropriations, flexibilities as well. They will allow us to do a better job working with our partners on coastal resiliency, address climate change, work on some of these big natural resource programs. We really appreciate your leadership and look forward to working with you going forward. Thank you.

Senator CARPER. We look forward to it as well. Thanks for your service, and we look forward to working with you and your team, the people you represent.

Thank you so much. Semper fi.

Mr. Guertin is going to be succeeded by a second panel. We have two witnesses on our second panel. One is Dr. Elizabeth Gray, and the other is Ms. Emily Cope.

We thank both of you for joining us today. It is good to see you. Go ahead and take your seats if you would, please.

I see a former Sea Grant fellow from our Committee, who is leaving. It is nice to see you, Katie, welcome. I could barely see your lips move when Mr. Guertin spoke.

[Laughter.]

Senator CARPER. All right, Emily Cope. How are you today? Great to see you.

Just a brief introduction if I could. We are delighted to welcome Emily Cope, recommended as a witness by a member of our Committee from South Carolina. Ms. Cope is currently serving as Deputy Director for Wildlife and Freshwater Fisheries for South Carolina Department of Natural Resources. She has served the department for over 22 years and has held numerous positions within the agency, most recently serving as Assistant Director.

Ms. Cope, I think one of your two Senators may be able to drop in and join us at some point during your testimony. If he does, we will certainly recognize him to add whatever comments he would like to add. We are delighted that you are here. Thank you so much for joining us.

STATEMENT OF EMILY COPE, DEPUTY DIRECTOR, WILDLIFE AND FRESHWATER FISHERIES, SOUTH CAROLINA DEPARTMENT OF NATURAL RESOURCES

Ms. COPE. Thank you. It is my pleasure to be here.

Chairman Carper, I appreciate you and Ranking Member Capito and members of the Committee allowing me the opportunity to come here today and address your Committee in support of S. 2194, the Coastal Habitat Conservation Act. As you mentioned, my name is Emily Cope, and I serve as the Deputy Director for the South Carolina Department of Natural Resources.

First, I would like to thank my Senator, Lindsey Graham, for co-sponsoring this legislation with Senator Cardin. The support and dedication that both of them have shown for our country's natural resources has resulted in wide sweeping impacts and is greatly appreciated.

The South Carolina Department of Natural Resources is supportive of your efforts to authorize the Secretary of Interior and U.S. Fish and Wildlife Service to work with willing partners to further the purpose and implementation of the Coastal Program. Habitat loss due to development pressure, natural disasters, and climate change continues to threaten our coastal ecosystems and communities. This in turn jeopardizes our fish and wildlife species as well as our local economies.

South Carolina, along with many other coastal States, has implemented numerous habitat enhancement, as well as research and survey projects utilizing Coastal Program funding. Specifically, in

South Carolina, we focused on threatened and endangered species as well as species of concern including black rail, loggerhead sea turtles, shorebirds, and waterbirds. These projects simply would not have been possible without Coastal Program funding.

In addition, because the Coastal Program implements the National Coastal Wetlands Conservation Program, I want to more specifically elaborate on these efforts. On the land acquisition side, the South Carolina Department of Natural Resources has secured over \$9.5 million of funding through the Coastal Wetlands Conservation Program and protected 52,320 acres on 11 different tracts of land.

These areas are not only managed by SCDNR to enhance coastal resources but are also open for public recreation opportunities. This \$9.5 million investment was leveraged by approximately \$77.8 million of State, private, and Federal funds as well as in kind contributions. These projects involve numerous partners, including but not limited to Ducks Unlimited, Local Land Trust, the National Oceanic and Atmospheric Administration, the U.S. Forest Service, and other U.S. Fish and Wildlife Service programs.

Most recently, South Carolina has utilized an additional \$2 million from the National Coastal Wetlands Conservation Program to restore and enhance hydrological function of 3,578 acres of managed wetlands on two SCDNR properties. This funding was leveraged with approximately \$1 million of State funding.

Ducks Unlimited has been a significant partner in these two projects and has provided numerous hours of oversight, engineering, and design, as well as technical expertise. Key activities include the addition of water control structures and the restoration of canals, embankments, and berms on these historically and ecologically important wetlands.

Through these acquisition and restoration efforts of the programs I have mentioned, we have protected and enhanced critical wetland habitat for not only migrating waterfowl but also other wetland dependent bird species, herpetofauna, and native plants, many of which are species of concern and are priorities for conservation efforts.

In addition, these areas provide valuable ecological filtering services from landscape runoff, namely pollutants and silt which would have entered our rivers, estuaries, and ocean, thereby decreasing water quality. These impoundments also buffer the mainland from storm surges and exceptionally high tides, which are becoming more common each year.

I hope these examples give you a clear picture of not only the direct impacts of the Coastal Program, but also the volume of leverage and partnerships generated by such. South Carolina is known for its beauty and the quality of its coastal resources. These resources provide our citizens with a sense of place, support our local communities, and enhance the quality of life for our residents. They are a key reason that people from across the United States come to visit our State.

By solidifying the future of the Coastal Program, we can ensure South Carolina continues to set the bar high for coastal resource conservation.

Again, on behalf of the South Carolina Department of Natural Resources, I sincerely want to thank you for your support of the program and your commitment to ensuring its future through this important legislation. And with that, I will be happy to answer any questions.

[The prepared statement of Ms. Cope follows:]

South Carolina Department of Natural Resources



Robert H. Boyles, Jr.

Director

Emily C. Cope

Deputy Director for

Wildlife and Freshwater Fisheries

Testimony on S 2194, Coastal Habitat Conservation Act of 2021

Emily C. Cope – Deputy Director, South Carolina Department of Natural Resources

Chairman Carper, Ranking Member Capito, and members of the Committee, thank you for the opportunity to address your committee in support of S. 2194 –the Coastal Habitat Conservation Act. For the record, my name is Emily Cope, and I am a Deputy Director for the South Carolina Department of Natural Resources.

First, I want to thank my Senator Lindsey Graham for co-sponsoring this legislation with Senator Cardin. The support and dedication that both of you have shown to this country's natural resources has resulted in wide-sweeping impacts and is greatly appreciated.

The South Carolina Department of Natural Resources is supportive of your efforts to authorize the Secretary of the Interior and the US Fish and Wildlife Service to work with willing partners to further the purpose and implementation of the Coastal Program. Habitat loss due to development pressure, natural disasters, and climate change continues to threaten our coastal ecosystems and communities. This in turn jeopardizes the health of our fish and wildlife species as well as local economies.

South Carolina, along with many other coastal states, has implemented numerous habitat enhancement, research, and survey projects utilizing Coastal Program funding. Specifically in South Carolina, we have focused on threatened and endangered species as well as species of concern including black rail, loggerhead sea turtles, shorebirds, and waterbirds. These projects simply would not have been possible without Coastal Program funding.

In addition, because the Coastal Program implements the National Coastal Wetland Conservation program I want to more specifically elaborate on those efforts. On the land acquisition side, the South Carolina Department of Natural Resources (SCDNR) has secured over \$9.5 million of funding through the National Coastal Wetlands Conservation Program and protected 52,320 acres on 11 different properties. These areas are not only managed by the SCDNR to enhance coastal resources but are also open for public recreation opportunities. This \$9.5 million investment was leveraged by approximately \$77.8 million in other state, private, and federal funds as well as in-kind contributions. These projects involved numerous partners including but not limited to Ducks Unlimited, local land trusts, the National Oceanic and Atmospheric Administration (NOAA), the US Forest Service (USFS), and other US Fish and Wildlife Service programs.

Most recently, South Carolina has also utilized an additional \$2 million of funding from the National Coastal Wetlands Conservation Program to restore and enhance the hydrological function of 3,578 acres of managed wetlands on two SCDNR properties. This funding was leveraged with approximately \$1 million of state funding. Ducks Unlimited has been a significant partner in these two projects and has provided numerous hours of project oversight, engineering and design, and technical expertise. Key

activities included the addition of water control structures and the restoration of canals, embankments, and berms on these historically and ecologically important wetlands.

Through these acquisition and restoration efforts, we have protected and enhanced critical wetland habitat for not only migrating waterfowl but also other wetland-dependent bird species, herpetofauna, and native plants of which many are species of concern and are priorities for conservation efforts. In addition, these areas provide valuable ecological filtering services from landscape runoff, namely pollutants and silt, which would have entered our rivers, estuaries, and ocean thereby decreasing water quality. These impoundments also buffer the mainland from storm surges and exceptionally high tides which are becoming more common each year.

I hope these examples help to give you a clear picture of not only the direct impacts of the Coastal Program but also the volume of leverage and partnerships generated by such. South Carolina is known for the beauty and quality of its coastal resources. These resources provide our citizens a sense of place, support our local communities, enhance the quality of life for our residents and are a key reason that people from across the United States come to visit our state. By solidifying the future of the Coastal Program, we can ensure that South Carolina continues to set the bar high for coastal resource conservation. Again, on behalf of the South Carolina Department of Natural Resources, I sincerely want to thank you for your support of this program and your commitment to ensuring its future with this important legislation.

INTERIM REPORT

National Coastal Wetlands Conservation Grant SC-C-F20AP00085

Grant Performance Period: 1/1/20-12/31/22

South Carolina Department of Natural Resources

Reporting Period: 1/1/21-12/31/21

Project Title: Samworth WMA Wetlands Restoration Project

Objective: The objective of this project is the hydrological restoration of 270 acres of palustrine emergent and forested wetlands and associated maritime forest habitat through the addition of water control structures and restoration of canals, embankments and berms. The South Carolina Department of Natural Resources (SCDNR) partnered with Ducks Unlimited (DU) to implement this restoration.

Accomplishments: This is the second interim report to document the distribution of funds and progress associated the Samworth WMA Wetlands Restoration Project. Due to Grant Solutions reporting date changes mid-project, some accomplishments from the last interim report may overlap with this report. Below is a list of activities completed to date by Ducks Unlimited:

- Contractors mobilized to site
- Construction commenced
- All four trunks have been installed
- Perimeter re-topping is 80% complete
- Berm re-establishment is 50% complete
- DU and SCDNR staff met with Audubon staff on site to assess project and meet their in-kind match obligations
- DU and SCDNR staff met with Open Space Institute staff on site to assess project and meet their in-kind match obligations
- DU anticipates project completion in Summer 2022

During the reporting period, a SCDNR News Release announcing the award was posted online 1/6/2021. See Exhibit A for the media post and DU's two progress reports from this year.

Significant deviations: None.

Estimated Federal Cost: See official 425 form.

Recommendations: Continue the grant.

Report Prepared by:

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Exhibit A

SCDNR News

SCDNR awarded \$1 million grant for wetland restoration at Georgetown County waterfowl management area

January 6, 2021



The U.S. Fish and Wildlife Service has awarded a \$1 million National Coastal Wetlands Conservation Grant to the South Carolina Department of Natural Resources (SCDNR) for wetland restoration on the Lower Middleton complex at Samworth Wildlife Management Area in Georgetown County.

The grant was completed and submitted through a partnership between Ducks Unlimited and SCDNR.

The Lower Middleton complex has been subject to extensive damage beginning with the historic flood of 2015 followed by a succession of hurricanes, which resulted in the breaching of the dikes and significant erosion damage to the already tenuous dike system.

The grant, along with \$895,215 in match funds from Ducks Unlimited, SCDNR, Open Space Institute, and Audubon South Carolina, will allow for the restoration of management capabilities on 270 acres of managed tidal wetlands.

Activities to be performed include installing four rice trunks, 13,425 linear feet of interior canal restoration, re-topping of 7,780 linear feet of dike, construction of 1,460 linear feet of interior setback dike, and enhancement of 2,560 linear feet of berm along eroded dikes.

This project will enhance waterfowl habitat and improve habitat for other game and nongame species, including wading birds, shorebirds, reptiles, and amphibians. Construction is expected to begin next month.

"The restoration of the Lower Middleton complex represents a major step forward in the restoration of total management capability of the managed wetlands at Samworth," said Emily Cope, Deputy Director of Wildlife and Freshwater Fisheries for SCDNR. "The project complements the restoration of the Rabbit Island unit and planned work on the adjacent Upper Middleton complex, as well as the extensive restoration and maintenance work conducted by our Upper Coastal Waterfowl Project staff at Samworth. We are grateful to Ducks Unlimited, Open Space Institute, and Audubon South Carolina for their support in making the project a reality."



Emily Purcell
Director of Conservation Programs
South Atlantic Field Office

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March 29, 2021

To: Billy Dukes – Project Officer
Interim Report: Samworth WMA Wetlands Restoration Project (SC-66-2)
Federal Award Number: SC-C-F20AP00085
SCDNR Subrecipient Reference Number: SCDNR FY 2021-004

This is the first interim report to document the distribution of funds and progress associated the Samworth WMA Wetlands Restoration Project during the performance period January 1, 2020 to December 31, 2020. Below is a list of activities completed to date:

- Planning meetings with SCDNR and USFWS staff
- Survey of project site
- Engineering design specifications
- Engineering plan drafting and completion
- Permitting
- Bid solicitation and on-site pre-bid meeting
- Bid awarded

Please let me know if you need any further information or project photos.

Thank you for your partnership on this project.

Emily Purcell

Emily Purcell



Ethan Massey
Regional Biologist
South Atlantic Field Office

1010 Bankton Circle Suite 200, Hanahan, SC 29410 • (843) 261-5753 • EMASSEY@DUCKS.ORG

February 17, 2022

To: Billy Dukes – Project Officer
Interim Report: Samworth WMA Wetlands Restoration Project (SC-66-2)
Federal Award Number: SC-C-F20.AP00085
SCDNR Subrecipient Reference Number: SCDNR FY 2021-004

This is the second interim report to document the distribution of funds and progress associated the Samworth WMA Wetlands Restoration Project during the performance period January 1, 2021 to December 31, 2021. Below is a list of activities completed to date:

- Contractors mobilized to site
- Construction commenced
- All four trunks have been installed
- Perimeter retopping is 80% complete
- Berm re-establishment is 50% complete
- DU and SCDNR staff met with Audubon staff on site to assess project and meet their in-kind match obligations
- DU and SCDNR staff met with Open Space Institute staff on site to assess project and meet their in-kind match obligations
- We anticipate project completion in Summer 2022

Please let me know if you need any further information or project photos.

Thank you for your partnership on this project.

Ethan Massey

Executive Summaries from NCWC Grants Awarded to South Carolina

SAMWORTH WMA WETLANDS RESTORATION PROJECT

The Samworth Wildlife Management Area Wetlands Restoration Project consists of the restoration and enhancement of 270 acres of decreasing wetlands in Georgetown County, South Carolina (SC). Samworth Wildlife Management Area is a 1,500-acre property owned and managed by the South Carolina Department of Natural Resources (SCDNR) through the Wildlife Management Area (WMA) program with a goal of maintaining and enhancing the integrity of the natural resources of the area while optimizing public recreational and educational opportunities. The proposed project is bordered to the west by the Great Pee Dee River and to the east by the Waccamaw River and Intracoastal Waterway.

Entrenched in the heart of a mosaic of private and public protected lands, Samworth WMA lies within the Winyah Bay, an Atlantic Coast Joint Venture (ACJV) Focus Area and area of extreme ecological significance in SC. Encompassing over 525,000 acres, the Winyah Bay project area contains the state's largest tidal freshwater wetlands, including 146,000 acres of forested wetlands and tidal freshwater marshes and historic rice fields which have been a fixture on the landscape for hundreds of years. This ecologically important area encompasses the third largest estuarine drainage on the Eastern Seaboard, making the protection of wetland and upland habitats critical in ensuring the health of this ecosystem. Recognizing the importance of connecting conservation lands in this area, the Winyah Bay Task Force was formed by state, federal, non-profit and private partners in the late 1980's to sustain the ecological integrity of one of the largest watersheds on the East Coast. **As of 2019, the Task Force has worked to protect and steward 86,219 acres of public lands (parks, National Wildlife Refuges, WMAs, etc.) and 73,145 acres of private properties (easements, deed restrictions, etc.). Partners have also collaborated to restore and enhance thousands of acres of wetlands on public and private lands to ensure that quality habitat is in place for the benefit of both wildlife and the public in this important coastal wetland habitat complex.**

Expanding conservation efforts by partners in the region, this project will restore 270 acres of NWI classified decreasing wetland types in historic rice field impoundments. **Managed impoundments in coastal South Carolina have higher species richness of fishes than nearby tidal creeks (Robinson and Jennings 2014); while many ducks and shorebird species use managed impoundments at higher frequencies than tidal marshes (Rundle and Fredrickson 1981; Weber and Haig 1996; Gordon et al. 1998).** The Winyah Bay landscape is home to more than 66 songbirds, including painted buntings, prothonotary warblers and summer tanagers. The project area is also a preferred stopover site for countless migratory birds such as shorebirds, wading birds, waterfowl and birds of prey. By ensuring high quality wetland habitat, this project will benefit both state and federally listed species, State Wildlife Action Plan (SWAP) species of conservation concern, and a multitude of relatively common species that depend upon these wetland ecosystems throughout their life cycles. Ducks Unlimited (DU) and SCDNR have a longstanding partnership and recognize the significant value of the proposed project's wetland habitat. This National Coastal Wetlands Conservation Grant Program (NCWCGP) funding would ensure that the restoration and enhancement of this critically important wetland area in coastal SC will be completed.

SANTEE COASTAL RESERVE WETLANDS RESTORATION PROJECT

The Santee Coastal Reserve Wetlands Restoration Project consists of the restoration and enhancement of 3,308 acres of predominantly decreasing wetlands and associated maritime forest in Charleston County, South Carolina. Santee Coastal Reserve is a 24,000-acre property owned and managed by the South Carolina Department of Natural Resources (SCDNR) through the Wildlife

Management Area (WMA) program. The proposed project is bordered to the north by the South Santee River – the second largest river basin on the east coast – and to the east by the Intracoastal Waterway.

Adjacent to Francis Marion National Forest and neighboring Cape Romain National Wildlife Refuge (NWR), Santee Coastal Reserve lies in the heart of the Atlantic Coast Joint Venture's (ACJV) Santee River Focus Area. This ecologically important area encompasses approximately 32% of South Carolina's coastal marshes and managed tidal wetlands, which support a significant portion of the state's wetland-dependent species. Recognizing the importance of connecting conservation lands in this area, the Santee Basin Task Force was formed by state, federal, non-profit and private partners to protect this region from the development rapidly expanding from both Charleston and Myrtle Beach. **As of 2016, the Task Force has worked to protect and steward 610,642 acres of public lands (parks, national forests, national wildlife refuges, WMAs, etc.), and 100,975 acres of private properties (easements, deed restrictions, etc.).** Partners have also collaborated to restore and enhance thousands of acres of wetlands to ensure that quality habitat is in place for the benefit of both wildlife and the public.

Building off of conservation efforts by partners in the region, this project will restore 3,308 acres of decreasing wetland types and associated maritime forest habitat and help conserve additional declining wetlands types. By ensuring high quality wetland habitat, this project will benefit both state and federally listed species, State Wildlife Action Plan (SWAP) species of conservation concern and a multitude of relatively common species that depend upon these wetland ecosystems throughout their life cycles. Ducks Unlimited (DU) has a longstanding partnership with SCDNR and has coordinated with them to prepare this proposal. Both DU and SCDNR value the significance of the project's wetland habitat and share in the desire to see restoration commence as soon as financially feasible. This National Coastal Wetlands Conservation Grant Program (NCWC) funding would ensure that the restoration and enhancement of this critically important wetland area in coastal South Carolina be completed.

SOUTH FENWICK ISLAND PROJECT

The **South Fenwick Island project** is made up of eight parcels totaling 400.94 acres, the majority of which is forested in maritime barrier island species and patches of loblolly pine, interspersed with old fields and eight man-made freshwater ponds in the interior. The project lands are bordered to the west by the Ashepoo River, to the east by the South Edisto River, to the north by North Fenwick Island and the mainland, and to the south by extensive marsh, Otter and Pine Islands. Fish Creek flows into the interior of the island.

The island is in the heart of the nationally renowned ACE Basin National Estuarine Research Reserve (confluence of the Ashepoo-Combahee-Edisto Rivers) whose parcels contain tracts managed by the United States Fish and Wildlife Service, land trusts, private landowners, and the State of South Carolina. The Basin encompasses approximately 1.1 million acres of uplands, marsh, managed tidal wetlands, and coastal islands. Of this total area, 217,000 acres have been protected from development in perpetuity.

The South Fenwick project lands and associated marine/estuarine environments boast a high diversity of priority species in the South Carolina Department of Natural Resources' Wildlife Action Plan—57 terrestrial species and 43 aquatic species in all—most notably the federally listed wood stork (threatened), West Indian/Florida Manatee (endangered), Atlantic sturgeon (endangered), and shortnose sturgeon (endangered). The federally endangered Kirtland's warbler is suspected to utilize the island's habitats during migration. Several more state-listed and petitioned species use the tract for breeding, foraging, or stopover habitat during migration.

Unique features include a wood stork roost and a great egret nest colony. Openings and old fields may be suitable to planting in native wildflowers for monarch butterflies and other pollinator species. Game and furbearer species such as white-tailed deer, Eastern wild turkey, river otter, and mink are also plentiful. In fact, the mink from these marshes were used several years ago for a restocking effort in other coastal areas missing mink. Cultural resources are prolific on the property and include Revolutionary and Civil War period sites, some of which include a Civil War fort, tabby remains of the original Seabrook Plantation house, a windmill, and a cistern. The property lies within two heritage corridors important to tourism in the State.

Preservation of as much of this sea island as possible would help conserve several National Wetland Inventory-designated wetland types. In addition, the property's forests help protect aquatic life by buffering both the Edisto and Ashepoo Rivers and their associated tidal creeks. The island sits in a significant estuary that supports an abundance marine fish and invertebrates that are commercially important and of conservation concern. The S Department of Natural Resources anticipates receiving National Coastal Wetlands Conservation Grant Program funding to support the fee-simple purchase of all parcels as a single tract. The property will be protected in perpetuity as part of the National Estuarine Research Reserve which will be open to the public for a multitude of environmental and cultural activities. This project constitutes a keystone purchase that will open the door for other willing landowners to sell their parcels with the ultimate goal of protecting the entire island. The 400.94 acres in this project proposal equal about 74% of the property of the total island.

SANTEE ISLAND PROJECT

The South Carolina Department of Natural Resources and its conservation partners request a National Coastal Wetlands Conservation Program investment of \$1,000,000 toward the fee-simple purchase of the **Santee Island tract** in the Santee Watershed of Georgetown County, South Carolina. This 1,964-acre tract is part of a larger 19,000-acre hub of conservation lands and is the last large parcel needed to connect state and private lands to the southeast to the federal lands of the Francis Marion National Forest to the northwest. With its acquisition, the Santee Island tract will protect the juncture of the North and Santee Rivers, both of which are Federally Designated Critical Habitat for the Atlantic and Shortnose Sturgeons.

Santee Island is entirely wetland with 99% being nationally declining wetland types. South Carolina Natural Heritage Program tracked priority ecological communities include bottomland hardwoods and cypress-tupelo swamp. Santee Island is so named for its location between the mainstem of two rivers and two side branches, making it a true island. The tract is heavily forested except for ~100 acres in historic rice fields with thick, early successional vegetation. Depressional wetlands can be found within one of these old fields. These rice fields have been proposed for addition to the Georgetown County Rice Culture National Register of Historic Places nomination. The forested wetlands and openings are utilized by no less than 117 priority species, 12 of which have some sort of federal designation, and 47 are also of regional conservation concern. Parcel analysis by the South Atlantic Landscape Conservation Cooperative Blueprint rank 96% of Santee as "highest priority" in overall regional priority considering connectivity, reptile and amphibian abundance, habitat for forested wetland birds,

aquatic resource value, and significance for climate change resilience as the property is a prime candidate for *Spartina* marsh migration.

No less than 13 plans and 4 initiatives are supported by acquisition and management of the tract. The federal share for the project is reduced by almost 20% as partners have provided match in anticipation of the protection of Santee Island. It is not often that the conservation community can boast of having completed a corridor, and this tract will do just that if funding is forthcoming. After taking title to the tract, the South Carolina Department of Natural Resources will enroll it in the Wildlife Management Area Program, essentially protecting it in perpetuity and maintaining it as a primitive site for public enjoyment. Water quality values, wildlife habitat, and scenic vistas will thus be maintained on this portion of the Santee River.

MEYER LAKE TRACT

The South Carolina Department of Natural Resources and its conservation partners request National Coastal Wetlands Conservation Program investment of \$1,000,000 toward the fee-simple purchase of the **Meyer Lake tract** in the Lower Savannah River Watershed of Jasper County, SC. This 974-acre tract, made up of three contiguous parcels, is part of a larger, 38,000-acre hub of conservation lands. The Savannah National Wildlife Refuge- Bear Island unit abuts the property to the west, privately protected Exley Plantation to the north, and the Okeetee Club to the east. Multiple other private conservation easements are in the vicinity of the tract. The property would be dedicated as a Heritage Preserve with likely dual enrollment in the Wildlife Management Area Program, protected in perpetuity, and open for public recreation.

The Meyer Lake tract, so named for the 8.75-acre lake on site, also has a 5-acre oxbow lake and at least two isolated wetlands. The majority of the property (80%) is comprised of nationally declining wetland types such as bottomland hardwoods with the balance in upland mixed pine-hardwoods. Besides the bottomland hardwoods, other South Carolina Natural Heritage tracked priority ecological communities include pond cypress savanna and pine savanna. Approximately 2.6 miles of bluff provide important ecotone/transition habitat from the uplands to the bottomlands. Two small tributaries converge on the tract and flow to the Savannah River. The forested tract protects 3.5 miles of river frontage, stabilizing the bank and filtering runoff. Meyer Lake is a tract of "highest priority" for Beaufort-Jasper Water and Sewer Authority, as it abuts their source water intake canal. Additionally, the City of Savannah Utility's water intake is downstream.

A parcel analysis of the Meyer Lake tract through the South Atlantic Conservation Blueprint returned a score of "highest priority." Influencing factors included connectivity, herpetofauna habitat suitability, forested wetland bird habitat, amount and configuration of aquatic resources, and climate resilience. The property is prime habitat for Neotropical migratory birds that require riverine, forest interior habitat for breeding and stopover habitat. In addition, wading birds, waterfowl, and a myriad of herpetofauna and aquatic species utilize the tract. Taxa experts have determined that at least 166 priority species likely utilize the property. Of this, 60 are of regional conservation concern on SEAFWA's Regional Species of Greatest Conservation Need (RSGCN) list. All four of Audubon's Responsibility Bird Species for South Carolina are expected on the

tract. The property abuts Federally Designated Critical Habitat (FDCH) for the Atlantic Sturgeon and 0.83 miles to the south is FDCH for the Frosted Flatwoods Salamander.

Cultural/archeologically significant sites include those from the American Revolution and the Early/Middle Woodland Period. Permanent protection of the property and the management thereof contributes to the goals of no less than nine regional plans and eight initiatives, making this property a priority for conservation and builds off prior investments in the watershed.

WACCAMAW RIVER HERITAGE PRESERVE EXPANSION: RIVER OAKS ACQUISITION

The South Carolina Department of Natural Resources and its conservation partners request National Coastal Wetlands Conservation Program investment of \$1,000,000 toward the fee-simple purchase of the **River Oaks tract** in the Waccamaw River Basin of Horry County, SC. This 980-acre tract, made up of 4 contiguous parcels, is a keystone investment for linking Waccamaw Heritage Preserve, Waccamaw River National Wildlife Refuge, Lewis Ocean Bay Heritage Preserve, and multiple private conservation easements in the region. Once acquired, the River Oaks tract would be designated as a Heritage Preserve with likely dual enrollment in the Wildlife Management Area Program and protected in perpetuity. River Oaks would be open for public recreation such as fishing, hunting, hiking, birdwatching, natural resources education programs, and paddling.

The majority of the property (59%) is composed of nationally declining wetland types with the balance in upland buffer habitat. Priority ecological communities tracked in the Heritage Trust database include cypress-tupelo swamp and bottomland hardwoods. The forested tract protects braided streams and approximately 3 miles of Waccamaw River frontage, stabilizing the banks and filtering runoff. Eight ponds on the tract are stocked with bass and bream. The project supports natural resource goals of no less than 12 management plans and 5 initiatives. The Horry County Open Space Plan's "Priority Conservation Areas" specifically highlights the River Oaks tract for being a habitat link, conservation gap, and habitat corridor worthy of protection. In a study commissioned by The Nature Conservancy, an ecological value was calculated for the floodplains at \$200,000 per year in avoided flooding costs to the nearby municipality of Conway, SC.

A parcel analysis of the River Oaks tract through the South Atlantic Conservation Blueprint returned a score for 97% of the property as in the "highest" to "high" categories for regional importance. Influencing factors included connectivity to a 9,000-acre conservation hub (immediate area), forested wetland bird habitat, and notable amounts and configurations of valuable aquatic resources. The property is prime habitat for Neotropical migratory birds that require riverine, forest interior habitat for breeding and stopover habitat. It contains all 4 of Audubon's "Regional Responsibility Species in South Carolina" for which the State provides breeding habitat for 10-24% of the species' global population. In addition, wading birds, waterfowl, and a myriad of herpetofauna and aquatic species utilize the tract. Taxa experts have determined that priority species known or expected on site due to proximity to known occurrences and/or similarity of habitat number at least 154. Most notable species include the

federally listed Northern Long-eared Bat (Threatened) and Wood Stork (Threatened). The rare, narrow endemic Venus Flytrap has documented occurrences nearby.

Significant cultural/archeological resources expected on site include those of historic and prehistoric occupations. In addition, the tract lies within SC's Gullah-Geechee Heritage Corridor, a National Heritage Area recognizing the unique culture of the area. The combination of ecological and historical values of the River Oaks tract make it a high priority for conservation to benefit South Carolina's wildlife, plants, and its citizens.

Approved for funding and awaiting project set-up:

WACCAMAW RIVER HERITAGE PRESERVE EXPANSION: COWPENS TRACT ACQUISITION

The South Carolina Department of Natural Resources and its conservation partners request a National Coastal Wetlands Conservation (NCWC) Program investment of \$1,000,000 toward the fee-simple purchase of the **Cowpens tract** in the Waccamaw River Basin of Horry County, SC. This 1,659.72-acre tract fills an outparcel in the Waccamaw River Heritage Preserve and continues previous investments in linking this Heritage Preserve with Waccamaw River National Wildlife Refuge, Lewis Ocean Bay Heritage Preserve, and multiple private conservation easements in the region. Once acquired, the Cowpens tract would be added to the existing Waccamaw River Heritage Preserve with dual enrollment in the Wildlife Management Area Program and protected in perpetuity. Cowpens would be open for public recreation such as hunting, hiking, birdwatching, and natural resources education programs with special emphasis on floodplain ecology. The Cowpens tract builds on prior conservation efforts and investments in the region, including the previous successful NCWC grant, "Waccamaw River Heritage Preserve Expansion: River Oaks Acquisition" (F21AP00702).

Almost half of the property is composed of nationally declining wetland types with the balance in higher elevation buffer habitat. Priority ecological communities tracked in the Heritage Trust database include the 111-year-old floodplain swamp forest, pocosins, and a Carolina bay. Planted loblolly pines ranging in age from 16 to 32 are also on site. The forested tract protects ~1.46 miles of Simpson Creek and ~7.7 miles of overall stream/tributary length, stabilizing the banks and filtering runoff. The project supports natural resource goals of no less than 12 management plans and 5 initiatives. The Horry County Open Space Plan, Horry County Imagine 2040 Comprehensive Plan, and the 2020 Draft Upper Waccamaw Conservation Plan spatially identify Cowpens as a significant parcel for preservation.

The South Atlantic Blueprint ranks 100% of the Cowpens tract as a worthy target for conservation, with 96% of it rated as "highest" or "high" priority for conservation action to sustain natural and cultural resources. This score is based on layers evaluating habitat cores, riparian buffers, habitat suitability for indicator species (birds) of conservation concern, terrestrial and aquatic connectivity and species diversity, resiliency, pervious surface, and more. The property is prime habitat for Neotropical migratory birds that require riverine, forest interior habitat for breeding and stopover habitat. In addition, wading birds, waterfowl, and a myriad of herpetofauna and aquatic species utilize the tract. Taxa experts have determined that Species of

Greatest Conservation Need (SGCN) known or expected on site due to proximity to known occurrences and/or similarity of habitat number over 150. Notable species utilizing the property include the federally listed Northern Long-eared Bat (Threatened), Wood Stork (Threatened), and Carolina Birds-in-a-Nest, *Macbridea caroliniana* (At-Risk/Candidate).

Significant cultural/archeological resources expected on site include those of historic and prehistoric occupations. Also, the tract protects the viewshed of the Waccamaw Blue Trail. The combination of ecological and historical values of the Cowpens tract make it a high priority for conservation to benefit South Carolina's wildlife, plants, and its citizens.

South Carolina Coastal Program Funded Project Examples

- Black Rail Survey Project: Conducting breeding season surveys for black rails
- Bear Island Habitat Enhancement Project: Invasive species control in wetland units to enhance black rail breeding/nesting
- North Island Loggerhead Turtle Project: Coyote and feral hog control at Yawkey to protect sea turtle nests
- Donnelley Habitat Project: Habitat enhancement in longleaf stands to create better habitat for red-cockaded woodpecker translocation project
- Aerial Waterbird Surveys: funded multiple times, focus primarily on woodstorks
- Monarch Butterfly Project: Coastal Monarch butterfly surveys
- Private Lands Woodstork Enhancement Project: funded the vegetative control on several of the largest wood stork rookeries on private land (DNR did the work)
- Yawkey Black Rail Project: new trunks, dike work, etc. to better manage black rails at Yawkey
- Black Bears: funded radio collar/telemetry of black bears in Horry County/Lewis Ocean Bay
- Seabird Nesting Project: Patrolling Deveaux Bank and Bird Key seabird sanctuaries to protect nesting seabirds
- Sea Turtle Lighting Project: Lighting improvements at Edisto Beach to protect nesting sea turtles/hatchlings

Senator CARPER. That is great. Thank you so much. Great to see you in person.

I think we are joined by our second person who is going to be on this panel, Dr. Elizabeth Gray.

Dr. Gray, are you out there?

Ms. GRAY. I am, I am on video feed. Can you see me?

Senator CARPER. Yes, we can see you, and hear you.

Let me just take a moment to introduce you, Dr. Gray. Currently serving as CEO of the National Audubon Society. Prior to joining Audubon, Dr. Gray worked for the Nature Conservancy for more than 17 years, most recently serving as the Global Managing Director of the Nature Conservancy's Climate Change Program.

We welcome you. There was once a Delawarean, actually a very senior member of the leadership team at DuPont Company, who became Governor of Delaware, Russell Peterson, who later became the Chairman of the Council on Environmental Quality in the Nixon and Ford administration. And then I think after that, he served as the CEO of the National Audubon Society. So we have a rich heritage from Delaware that has been part of the National Audubon Society's leadership.

We welcome you especially today, with that history in mind. Please proceed. Your full testimony will be made part of the record, then we will get into some questions with both you and Ms. Cope.

STATEMENT OF ELIZABETH GRAY, PH.D., CHIEF EXECUTIVE OFFICER AND EX-OFFICIO BOARD DIRECTOR, NATIONAL AUDUBON SOCIETY

Ms. GRAY. Thank you, Chairman Carper.

Good morning. My name is Dr. Elizabeth Gray, and I am the Chief Executive Officer of the National Audubon Society.

Audubon represents 1.8 million members nationwide protecting birds and the places they need through our 23 State programs, 41 centers, and 450 chapters. I appreciate the opportunity to testify today on behalf of Audubon regarding coastal habitats and the need to protect and restore these vital areas.

Over the past year, I have identified three pillars that are guiding the National Audubon Society's work: Hemispheric conservation, equity diversity inclusion and belonging, and climate change. Audubon's work around protecting and restoring coastal resources, such as wetlands, beaches, and barrier islands, touches upon all three of these pillars. These resources serve as recreational spaces, enhance our resilience to climate threats like floods and hurricanes, and provide habitat for birds and other wildlife.

Yet climate change and development have diminished bird habitats. The U.S. has lost 3 billion birds since the 1970s, with a 70 percent decline in sea and shorebird populations over the last 50 years.

Increasing storms and hurricanes also threaten coastal communities. Hurricanes have killed nearly 6,700 people and caused more than \$1.1 trillion in damages from 1980 to 2021.

However, the burdens of climate change do not affect all communities equally. Those on the frontlines of climate change, primarily lower income communities, communities of color, and tribal nations

and indigenous communities, are being the first and the worst hit by its impacts.

The U.S. Fish and Wildlife Service plays a crucial role in climate resiliency and adaptation through its administration of programs throughout the United States that focus on habitat conservation and protection. Audubon supports these four bills which would codify, reauthorize, and expand critical U.S. Fish and Wildlife Service programs in vulnerable coastal areas, increase coastal resiliency and safeguard important habitat.

The Coastal Habitat Conservation Act of 2021 would improve coastal community protection through the authorization of technical assistance for grant programs targeted to coastal habitat conservation. The Great Lakes Fish and Wildlife Restoration Reauthorization Act reauthorizes the U.S. Fish and Wildlife Service to continue to work with States and other agencies to develop and execute proposals to conserve, restore, and manage fish and wildlife populations and other habitats.

The Delaware River Basin Conservation Reauthorization Act reauthorizes critical conservation programs throughout the Delaware River Watershed and improves the equitability of Federal funding provided through the Act. The Strengthening Coastal Communities Act of 2022 expands the bipartisan Coastal Barrier Resources Act and its system of protected areas, protecting vital coastal ecosystems while saving Federal tax dollars.

The Coastal Habitat Conservation Act of 2021 would authorize imperative technical assistance to sustain the U.S. Fish and Wildlife Service's Coastal Grant Program. To clarify from my written testimony, this bill authorizes that technical and financial assistance, not the grant program itself. With the support granted by this authorization, the Coastal Program focuses on habitat conservation along the Nation's coastlines, which provide resiliency for coastal communities prone to storms and flooding as well as critical habitat for birds, fish, and other wildlife.

Both the Great Lakes Fish and Wildlife Restoration Reauthorization Act and the Delaware River Basin Conservation Reauthorization Act reauthorize vital Fish and Wildlife Service programs that support coastal habitat conservation protecting critical areas for migratory birds in these regions. And the Strengthening Coastal Communities Act of 2022 would expand the successful and bipartisan Coastal Barrier Resources Act which currently protects 3.5 million acres along undeveloped beaches, islands, and wetlands along the Gulf of Mexico, Atlantic, Great Lakes, U.S. Virgin Islands, and Puerto Rico. CBRA does not prohibit development. It simply removes the taxpayer from funding in important designated areas.

CBRA supports coastal resiliency by protecting undeveloped areas that buffer nearby communities from storms and flood. It has saved the Federal taxpayer \$9.5 billion and is projected to save billions more. It protects wetlands that provide important habitat and support the Nation's \$244 billion a year recreational and commercial fishing industry.

This legislation would strengthen and expand CBRA by adding 278,000 acres, expanding the definition of an undeveloped coastal barrier, and directing the Service to carry out a Coastal Hazard

pilot project to identify areas that are and will be vulnerable to coastal hazards at sea level areas.

Thank you for the opportunity to testify. I am happy to answer any questions you may have.

[The prepared statement of Ms. Gray follows:]

***Testimony of Elizabeth Gray, Ph. D., Chief Executive Officer, National Audubon Society, before the Committee on Environment and Public Works, United States Senate
June 15, 2022***

My name is Dr. Elizabeth Gray, and I am the Chief Executive Officer of the National Audubon Society. Audubon represents 1.8 million members nationwide and works to protect birds and the places they need through our 23 state programs, 41 centers, and 450 chapters. I appreciate the opportunity to testify today on behalf of the National Audubon Society regarding coastal habitats and the need to protect and restore these vital areas.

Coastal resources, such as wetlands, beaches, and barrier islands, provide critical services. They serve as recreational spaces, enhance our resilience to climate threats like floods and hurricanes, and provide habitat for birds and other wildlife. Yet climate change and development have severely diminished bird habitats. The U.S. has lost 3 billion birds since the 1970s, with a 70 percent decline in sea- and shorebird populations over the last 50 years.

Increasing storms and hurricanes also threaten coastal communities. Hurricanes have killed nearly 6,700 people and caused more than \$1.1 trillion in damages from 1980 to 2021. However, the burdens associated with climate change do not affect all communities equally. Those on the frontlines of climate change—primarily lower-income communities, communities of color, and Tribal Nations and Indigenous communities—are being hit first and worst by its impacts.

The U.S. Fish and Wildlife Service plays a crucial role in coastal resiliency and adaptation through its administration of programs throughout the United States that focus on habitat conservation and protection. Audubon supports these four bills, which would codify, reauthorize, and expand critical U.S. Fish and Wildlife Service programs in vulnerable coastal areas. Each of these bills would increase coastal resiliency and safeguard important habitat:

- S. 2194, the Coastal Habitat Conservation Act of 2021, which would improve coastal community protection through grant programs that provide technical assistance targeted to habitat conservation.
- S. 3069, the Great Lakes Fish and Wildlife Restoration Reauthorization Act, which authorizes the U.S. Fish and Wildlife Service (FWS) to continue to work with states and other agencies to develop and execute proposals to conserve, restore, and manage fish and wildlife populations and their habitats.
- S. 3767, the Delaware River Basin Conservation Reauthorization Act, which would reauthorize critical conservation programs throughout the Delaware River Watershed and improve the equitably of federal funding provided through the Act.
- Strengthening Coastal Communities Act of 2022, which would expand the bipartisan Coastal Barrier Resources Act and its system of protected areas, protecting vital coastal ecosystems while saving federal tax dollars.

The National Audubon Society supports these imperative bills, as their enactment would benefit coastal communities, support wildlife, and help our coasts better adapt to climate change impacts.

S. 2194, the Coastal Habitat Conservation Act of 2021

Audubon supports S. 2194, *the Coastal Habitat Conservation Act of 2021*, which would improve coastal community protection through grant programs targeted to habitat conservation by codifying the U.S. Fish and Wildlife Service's Coastal Program that provides technical assistance. Much of the focus of the program would be on building, restoring or enhancing coastal wetlands and coastal upland habitats, along with freshwater ecosystem restoration. Congress should increase support for coastal wetlands restoration through this vital program. As noted above, coastal wetlands provide \$23 billion in storm protection services each year, while providing habitat that wildlife depends on.

Because of their many benefits, Audubon and partners are conducting on-the-ground wetlands restoration projects. Some of our projects that have benefitted from U.S. Fish and Wildlife Service funding of particular relevance to Committee members include:

- Blackwater National Wildlife Refuge in Maryland, where Audubon and partners are working to increase the elevation of the marsh to protect it from sea level rise impacts funded in part by a coastal grant through the U.S. Fish and Wildlife Service.
- Cat Island, where Audubon has conducted research on Snowy Plovers in coastal Mississippi after all discovered nests failed in 2019 due to unknown causes. Through the grant program, Audubon has been able to conduct predator abatement and additional protective measures to improve Snowy Plover nesting success on the island.
- Gulfport, Mississippi, where Audubon received grant funding for habitat restoration projects at Least Tern Important Bird Areas. This will provide needed shade from native plants and dune stabilization for one of the largest Least Tern breeding colonies in the northern Gulf Coast.

The grants program in S. 2194 would encourage projects that result in carbon sequestration. Wetlands capture and store carbon pollution, with tidal wetlands playing a critical role. More than half of the global carbon load is captured by marine ecosystems and coastal vegetation, and the top three "blue carbon" sinks are mangroves, seagrass and tidal wetlands.¹ These habitats "not only remove more carbon than all other ocean habitat types but they remove it at rates up to 100 times faster than terrestrial forests."² Although they cover a relatively small area, "carbon burial by salt marshes accounts for an estimated 21 percent of the total carbon sink of all ecosystems in the United States."³

The grants program would require that projects include measurable outcomes and have a science-based focus. Community engagement is also stressed, along with using innovative nature-based practices that are scalable and replicable. These project criteria will help ensure that projects maximize the financial investment, while showcasing new ways to work with nature to restore habitats.

S. 2194 highlights and supports the restoration of aquatic habitats to maximize their habitat, resiliency, and climate change benefits. Audubon urges the Committee to enact S. 2194.

¹ U.S. Fish and Wildlife Service, "Status and Trends of Wetlands in the Long Island Sound Area: 130 Year Assessment." 2015. P. 6. <https://www.fws.gov/wetlands/documents/Status-and-Trends-of-Wetlands-in-the-Long-Island-Sound-Area-130-Year-Assessment.pdf>

² Ibid.

³ Ibid.

S. 3069, Great Lakes Fish and Wildlife Restoration Reauthorization Act

Audubon supports S. 3069, the *Great Lakes Fish and Wildlife Restoration Reauthorization Act*. This bipartisan bill authorizes the U.S. Fish and Wildlife Service to continue to work with states and other agencies to develop and execute proposals to conserve, restore, and manage fish and wildlife populations and their habitats. The program supports research and restoration projects throughout the Great Lakes region, including restoring wetlands and supporting healthy fisheries. Reauthorizing this important act would help support the implementation of the larger Great Lakes Restoration Initiative (GLRI), a program long-championed by Audubon and our conservation partners. Since it launched over a decade ago, the GLRI has guided billions of dollars to fund more than 6,000 critically important science-based restoration projects, which are improving water quality and habitat to protect the region's wildlife, local communities, and economies.

Audubon supports S. 3069 because millions of migratory birds depend on coastal habitats along the Great Lakes for shelter, rest, and nourishment. Thousands of raptors, waterfowl, and wetland birds rely on the Great Lakes for safe nesting grounds. As the largest freshwater ecosystem on the planet, the Great Lakes provide drinking water to 40 million people. This globally important ecosystem faces significant threats, including coastal development, invasive species, and climate change. Given this urgent need, Audubon is proud to be investing in cutting-edge science to prioritize coastal wetlands for conservation action, studying the impact of climate change on birds, and developing a range of conservation management tools. Investing in coastal watersheds and wetlands will help sustain bird populations into the future, build community resilience, and protect the water quality throughout the region.

With each year, climate change poses a more serious threat to communities and the safety of the Great Lakes region. The federal government must do all that it can to protect the world's largest freshwater ecosystem, and that includes swiftly passing S. 3069.

S. 3767, Delaware River Basin Conservation Reauthorization Act

Audubon supports S. 3767, the *Delaware River Basin Conservation Reauthorization Act of 2022*. This bill will reauthorize critical conservation programs throughout the Delaware River Watershed and improve the equitability of federal funding provided through the Act. The Delaware River Basin Restoration Program (DRBRP), which is the main U.S. Fish and Wildlife Service collaborative program administered as part of the Act, champions investments in critical on-the-ground projects. Throughout the Delaware River Watershed, these projects restore important habitat for birds and other wildlife and ensure clean drinking water for over 13.3 million people.

The Delaware River Watershed is a system where resilient communities thrive alongside priority bird species. From warblers to shorebirds, the Delaware River Watershed provides critical habitat for birds from the upland forests of the Kittatinny Ridge and Appalachian Highlands to tributaries that wind their way through Philadelphia and down to the Delaware Bay's coastal plains and marshes. The region is home to over 400 bird species and includes more than 126,000 acres of internationally important wetlands; crucial breeding habitat in the forested headwaters; a globally important site for shorebird migration; and a critical stopover site along the Atlantic Flyway for the second largest population of migrating songbirds and raptors in North America.

As a recipient of funding through the DRBRP, Audubon supports habitat for wildlife across the Delaware River Watershed. For example, we are actively working to improve hundreds of acres of forested habitat in the headwaters through our Harvests for Habitat program. This partnership program helps private landowners and foresters implement bird-friendly forest management practices birds like the Wood Thrush and Cerulean Warbler. Audubon and our partners are grateful that the DRBRP continues to receive federal funding and attention. We support the proposed changes to the authorization act that are included in S. 3767. By reducing the match requirement to 10 percent for small, rural, or disadvantaged communities, this will help ensure more equitable access to these federal dollars. We urge this committee to swiftly pass S. 3767.

Strengthening Coastal Communities Act of 2022

Audubon supports the *Strengthening Coastal Communities Act of 2022* would expand and strengthen the Coastal Barrier Resources Act (CBRA). CBRA protects 3.5 million acres of undeveloped beaches, islands, and wetlands along the Gulf of Mexico, Atlantic, Great Lakes, U.S. Virgin Islands, and Puerto Rico. CBRA does not prohibit development, it simply removes the taxpayer from funding it in important designated areas. In so doing, CBRA:

- Supports coastal resiliency by protecting undeveloped areas that act as nature's speed bumps, buffering nearby communities from storms and floods.
- Saves the federal taxpayer billions of dollars.
- Protects wetlands, which provide important habitat, and support the nation's \$255 billion annual recreational and commercial fishing industries.⁴
- Embraces bipartisan cooperation, with Presidents Reagan, Bush, Clinton, and Trump signing legislation that created and expanded CBRA.

Audubon strongly supports the Coastal Barrier Resources Act and urges Congress to enact legislation that would expand and strengthen it by taking these three steps:

- First, add nearly 278,000 acres to the CBRA System along the coasts of nine states impacted by Hurricane Sandy, from New Hampshire to Virginia. The U.S. Fish and Wildlife Service (USFWS) transmitted the Hurricane Sandy maps to Congress in April 2022, and Audubon urges their enactment.
- Second, expand the definition of an undeveloped coastal barrier to include bluffs, spits and related lands, and coastal hazard areas.
- Third, direct the USFWS to carry out a coastal hazard pilot project to identify areas that are and will be vulnerable to coastal hazards.

1. The Coastal Barrier Resources Act has a long track record of bipartisan support.

The Coastal Barrier Resources Act is a bipartisan, common-sense approach to protecting the environment, saving federal tax dollars, and promoting public safety. The CBRA was signed into law by President Ronald Reagan in 1982, who noted that it, "will enhance both wise natural resource

⁴ National Oceanic and Atmospheric Administration, "Fisheries Economics of the United States." <https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states>

conservation and fiscal responsibility.”⁵ President Reagan called CBRA “imaginative environmental legislation . . . that solves real problems in the stewardship of our natural resources.”⁶

Bipartisan support for the CBRA continued in 1990, when legislation making major additions to the Coastal Barrier Resources System (CBRS) was approved by voice vote in both the House and Senate, and signed into law by President George H.W. Bush.⁷ Senator John Chafee (R-RI), a sponsor of the original CBRA legislation and the 1990 expansion bill, noted that “CBRA gets the Federal government out of the business of subsidizing high-risk development,” adding, “Nothing in CBRA prevents property owners from doing what they want on their own land; it only provides that they do so at their own financial risk.”⁸ President Bill Clinton later echoed this sentiment by observing that,

[The CBRA] has successfully minimized the loss of human life by discouraging development in high-risk areas. It also has reduced the wasteful expenditures of Federal resources and protected the natural resources associated with coastal barriers.⁹

The CBRA has continued to earn bipartisan praise, including from Senator James Inhofe (R-OK) who called it, “a free-market approach to conservation” that helps protect “biologically rich coastal barriers by restricting Federal expenditures that encourage development.”¹⁰ In December 2018, legislation to add more than 18,000 acres to the System passed the House with one dissenting vote, and the Senate by unanimous consent, and was signed into law by President Trump.¹¹

The CBRA’s long track record of support also includes endorsements by organizations that represent taxpayer advocates, conservationists, state agency officials, sportsmen, insurance industry interests, and conservative think tanks. The diverse interests that tout the benefits of the CBRA, and its continuing appeal to politicians on both sides of the political aisle, position CBRA as a tool of continuing importance for protecting natural, taxpayer and public safety resources.

⁵ Reagan, President Ronald, “Statement on Signing the Coastal Barrier Resources Act.” October 18, 1982. www.presidency.ucsb.edu

⁶ Ibid.

⁷ Public Law 101-591. See <https://www.congress.gov/bill/101st-congress/house-bill/2840/actions?q=%7B%22search%22%3A%5B%22Coastal+Barrier+Improvement+Act+of+1990%22%5D%7D&r=1&s=2>

⁸ Chafee, Senator John H., “Statement by Senator John H. Chafee, Committee of Environment and Public Works, Hearing on S. 2470, a bill relating to Unit FL-35 of the Coastal Barrier Resources System.” September 22, 1998. https://www.epw.senate.gov/105th/cha_9-22.htm

⁹ Clinton, President William J., “Statement on Signing the John H. Chafee Coastal Barrier Resources System Act.” December 9, 1999. <https://www.presidency.ucsb.edu/documents/statement-signing-the-john-h-chafee-coastal-barrier-resources-system-act>

¹⁰ S. Rept. 109-179 – Coastal Barrier Resources Reauthorization Act of 2005, Committee Report. <https://www.congress.gov/congressional-report/109th-congress/senate-report/179/1?overview=closed>

¹¹ See for the House vote: U.S. House of Representatives, “Final Vote Results for Roll Call 419.”

<http://clerk.house.gov/evs/2018/roll419.xml>. See for the Senate vote: <https://www.congress.gov/bill/115th-congress/house-bill/5787/all-actions?q=%7B%22search%22%3A%5B%22HR+5787%22%5D%7D&r=1&overview=closed#tabs>. See for presidential signing: Public Law 115-358. <https://www.congress.gov/bill/115th-congress/house-bill/5787/all-actions?q=%7B%22search%22%3A%5B%22HR+5787%22%5D%7D&r=1&overview=closed#tabs>

2. The Coastal Barrier Resources Act's three goals: save lives, conserve the coastal environment, and reduce Federal expenditures.

- *CBRA saves billions of tax dollars by discouraging hurricane- and hazard-prone development.*

The CBRA discourages development along hurricane-prone coasts, where storms can take lives and destroy billions-of-dollars' worth of property. The chart below shows insured losses in dollars for the top 10 costliest hurricanes in the United States at the time they occurred, and in 2021 dollars adjusted for inflation. According to Aon, a multinational insurance company, Hurricane Katrina was the costliest hurricane on record, causing \$65 billion in insured losses when it occurred in 2005, which equals \$89.7 billion in inflation-adjusted 2021 dollars.

Top 10 Costliest Hurricanes in the United States

Rank	Year	Hurricane	Estimated insured loss (\$ in millions)	
			Dollars when occurred	In 2021 dollars (2)
1	2005	Hurricane Katrina	\$65,000	\$89,680
2	2021	Hurricane Ida	36,000	36,000
3	2012	Hurricane Sandy	30,000	35,140
4	2017	Hurricane Harvey	30,000	33,110
5	2017	Hurricane Irma	30,100	33,000
6	2017	Hurricane Maria	29,500	32,400
7	1992	Hurricane Andrew	16,000	30,770
8	2008	Hurricane Ike	18,200	22,540
9	2005	Hurricane Wilma	10,670	14,510
10	2018	Hurricane Michael	13,250	14,200

Includes Puerto Rico and the U.S. Virgin Islands and losses sustained by private insurers and government-sponsored programs such as the National Flood Insurance Program. Includes hurricanes that occurred through 2021. Adjusted for inflation by using the U.S. Consumer Price Index. Source: *Insurance Information Institute, "Facts + Statistics: Hurricanes."* <https://www.iii.org/fact-statistic/facts-statistics-hurricanes>

The CBRA prohibits the dozens of federal programs that underwrite and support coastal development along the hurricane-prone coasts, resulting in significant savings to the Federal Treasury. A 2019 study in the peer-reviewed *Journal of Coastal Research* documented billions of dollars saved by the Act. According to the analysis of a subset of federal expenditures, the CBRA reduced federal coastal disaster-related expenditures by \$9.5 billion (in 2016 dollars) between 1989 and 2013.¹² This assessment is based on evaluating coastal storm related expenditures from just four federal agencies. This did not include expenditures by the National Flood Insurance Program (NFIP), which is currently

¹² Coburn, Andrew S., and Whitehead, John C., "An Analysis of Federal Expenditures Related to the Coastal Barrier Resources Act of 1982," in *Journal of Coastal Research*. March 15, 2019. <https://www.jcronline.org/doi/abs/10.2112/JCOASTRES-D-18-00114.1>

more than \$20 billion in debt.¹³ It is likely that the savings from CBRA would be even greater if programs like the NFIP and others had been included in the calculations.

In addition to past savings, the CBRA is projected to continue saving billions of federal dollars over the next 50 years. Using estimated savings scenarios based on land development rates and storm damages, projected savings from CBRA are between \$11 billion (in 2016 dollars) for a low development/low damage scenario, to \$108 billion (in 2016 dollars) for a high development/high damage scenario.¹⁴ It is clear that CBRA meets its goal of saving federal tax dollars.

- ***CBRA promotes public safety in the face of hurricane, storm and sea level rise threats.***

The Coastal Barrier Resources Act works to reduce the exposure of people and property to deadly storms, sea level rise, and hurricanes by removing the federal program expenditures that support and subsidize coastal development. According to a 2007 study by the Government Accountability Office, an estimated 84 percent of all CBRS units remain undeveloped, while another 13 percent have minimal development.¹⁵ A 2020 analysis of development in the coastal zone of eight U.S. coastal states (TX to NC) found that less than 5 percent of the land in CBRA units was developed, as compared to more than 25 percent of the land outside of CBRA.¹⁶

CBRA-protected areas remain largely undeveloped, which reduces the number of people exposed to deadly acts of nature. According to the National Oceanic and Atmospheric Administration (NOAA), the 2020 hurricane season was a record-breaking year that produced 30 named storms, while the 2021 hurricane season produced 21 named storms. These storms can have tragic consequences; Hurricane Ida in 2021 killed 107 people, with additional fatalities occurring from other 2021 storms.¹⁷ Discouraging development in hurricane- and storm-prone areas helps save lives. This is particularly clear in coastal areas subject to storm surges, where more than 7 million American homes are at risk from a Category 5 hurricane.¹⁸

Undeveloped coastal areas also provide important resiliency benefits for upland communities. Nationwide, coastal wetlands provide more than \$23 billion in storm protection services.¹⁹ CBRA areas, like protected inlets, islands, and wetlands, help buffer mainland communities from hurricane damage and storm impacts. In fact, coastal wetlands prevented more than \$625 million in property damages during Hurricane Sandy.²⁰

¹³ Congressional Research Service, "Introduction to the National Flood Insurance Program (NFIP)." November 19, 2021. <https://sgp.fas.org/crs/homesec/R44593.pdf>

¹⁴ Coburn and Whitehead, op cit.

¹⁵ United States Government Accountability Office, "Coastal Barrier Resources System: Status of Development That Has Occurred and Financial Assistance Provided by Federal Agencies." GAO-07-356. March 2007. <https://www.gao.gov/assets/260/257815.pdf>

¹⁶ BenDor, Todd, et al, University of North Carolina at Chapel Hill, Department of City and Regional Planning, "Evaluating the Impact of the U.S. Coastal Barrier Resources Act." January 19, 2022.

¹⁷ Beven, John L.; Hagen, Andrew; Berg, Robbie, *Tropical Cyclone Report: Hurricane Ida*. National Hurricane Center, 2022.

¹⁸ Insurance Information Institute, "Facts + Statistics: Hurricanes." <https://www.iii.org/fact-statistic/facts-statistics-hurricanes>

¹⁹ National Oceanic and Atmospheric Administration, Office for Coastal Management, "Fun Facts: Natural Infrastructure." <https://coast.noaa.gov/states/fast-facts/natural-infrastructure.html>

²⁰ Narayan, Siddharth, et al, "The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA," in *Scientific Reports*. August 31, 2017. <https://www.nature.com/articles/s41598-017-09269-z>

- ***CBRA protects critically important coastal habitat that supports economically vital fisheries and shellfisheries, birds, and other wildlife.***

Coastal wetlands and estuaries protected by CBRA support a wide variety of wildlife and are essential habitat for fish and shellfish, which support the nation's economically vital commercial and recreational fishing industries. Roughly \$255 billion in sales were generated by the sport and commercial fishing industries in 2019, which also supported nearly 2 million jobs.²¹

Coastal wetlands, beaches and islands are also extremely important habitat for birds, sea turtles, and other wildlife. Imperiled shorebirds like Least Terns, American Oystercatchers, and Piping Plovers depend on undeveloped coastal areas. Nationwide, bird watching is a \$107 billion a year industry that positively impacts 47 million people per year.²²

Given CBRA's many benefits, the National Audubon Society strongly supports expanding the CBRA's system of protected areas in three key ways:

A. Enact the "Hurricane Sandy" maps.

The National Audubon Society commends the USFWS for carefully developing proposed additions and necessary deletions to the CBRA System along the coasts of nine states impacted by Hurricane Sandy: NH, MA, RI, CT, NY, NJ, DE, MD and VA. Hurricane Sandy made landfall along the Northeast coast of the United States in October 2012 and caused nearly \$75 billion in damages.²³ Hurricane Sandy damaged or destroyed at least 650,000 homes, affected 300,000 business properties, and caused 147 direct deaths in the Atlantic Basin, including 72 in the United States.²⁴ Following the hurricane, Congress appropriated \$5 million to the USFWS to update the CBRA maps along the nine most impacted states, and propose additions and necessary removals to address prior map inaccuracies.²⁵ After public comment periods on draft maps, the USFWS released its final report to Congress on the remapping project in April 2022, and recommended that Congress enact CBRA System maps that would add 277,950 acres to the CBRA System, and remove 1,361 acres and 910 structures that were inaccurately included in prior maps.²⁶ Audubon strongly supports the USFWS's recommendations.

Enacting the Hurricane Sandy maps would benefit the taxpayer, environment and coastal communities along the Atlantic Coast:

²¹ National Oceanic and Atmospheric Administration, "Fisheries Economics of the United States." <https://www.fisheries.noaa.gov/national/sustainable-fisheries/fisheries-economics-united-states>

²² North American Bird Conservation Initiative, "Clean Air and Water, Human Health, and Economic Benefits Go Hand-In-Hand With Bird Conservation." July 2018. <https://nabci-us.org/wp-content/uploads/2020/01/NABCI-linking-bird-conservation-to-human-benefits-3.pdf>

²³ U.S. Fish and Wildlife Service. *Report to Congress: John H. Chafee Coastal Barrier Resources System Hurricane Sandy Remapping Project*. April 2022. P. xi. (Hereafter referred to as the "FWS Hurricane Sandy Report.") <https://www.fws.gov/media/report-congress-john-h-chafee-coastal-barrier-resources-system-hurricane-sandy-remapping>

²⁴ AON Benfield Reinsurance, "Hurricane Sandy Event Recap Report."

http://thoughtleadership.aonbenfield.com/Documents/20130514_if_hurricane_sandy_event_recap.pdf

²⁵ Ibid.

²⁶ Ibid, p. xii.

- **New Hampshire** would gain 681 acres in the CBRA System, which would benefit the many species of birds that depend on New Hampshire's Great Bay and Atlantic Coast areas, including 20 species of waterfowl, 27 species of shorebirds, and 13 species of waterbirds.²⁷ Bay and coast dependent fish and shellfish would also benefit from protecting undeveloped coastal areas. Commercial fishing operations in the state's bay and marine waters are valued at nearly \$30 million, while recreational fishing nets 1.5 million pounds of fish and shellfish.²⁸
- **Massachusetts** would gain 32,746 acres in the CBRA System, while roughly 300 acres and 168 structures that were incorrectly included in prior maps would be removed. Adding more areas to the CBRA System would support birds like Piping Plovers, Terns, and American Oystercatchers, while new wetlands protections would help ensure that the Commonwealth's \$557 million commercial fish and shellfishing industry remains strong, as well as its recreational fishing industry which catches more than 10 million pounds of fish and shellfish.²⁹
- **Rhode Island** would gain 1,544 acres in the CBRA System, while 98 acres of land and 98 structures would be removed that were incorrectly included in prior maps. Expanding the CBRA System along Rhode Island would benefit the many species of birds that depend on Narragansett Bay and ocean waters, including Spotted Sandpipers, Piping Plovers, and Great Egrets.³⁰ Protecting undeveloped coastal lands and wetlands would also help support the state's \$78 million commercial fishing and shellfishing industry, and the recreational fishing industry that catches more than 5 million pounds of fish and shellfish each year.³¹
- **Connecticut** would gain 3,783 acres in the CBRA System, while 32 acres and 52 structures would be removed that were incorrectly included in prior maps. Expanding the CBRA System along Connecticut and Long Island Sound would help ensure that birds like American Oystercatchers and Piping Plovers have habitat, while supporting the state's \$20 million annual commercial fishing and shellfishing operations, and its recreational fishing industry, which pulls in more than 7 million pounds of fish and shellfish each year.³²
- **New York** would gain 19,799 acres in the CBRA System, while 329 acres and 277 structures would be removed that were incorrectly included in prior maps. Expanding the CBRA System along Long Island and New York's coast would help provide habitat to Piping Plovers, American Oystercatchers, Common Terns and Ospreys, while supporting the state's \$34 million a year commercial fishing and shellfishing industry, as well as its recreational fishing industry, which catches 26 million pounds of fish and shellfish annually.³³
- **New Jersey** would gain 71,492 acres in the CBRA System, while 156 acres and 62 structures would be removed that were incorrectly included in prior maps. Expanding the CBRA System along New Jersey would benefit dozens of species of birds that use the New Jersey coastline,

²⁷ National Audubon Society, "Important Bird Areas: Great Bay, New Hampshire." <https://www.audubon.org/important-bird-areas/great-bay> and State of New Hampshire, "New Hampshire Wildlife Action Plan, Appendix A, Birds-81." <https://www.wildlife.state.nh.us/wildlife/profiles/wap/birds-semipalmatedsandpiper.pdf>

²⁸ National Oceanic and Atmospheric Administration, U.S. Fisheries. (Hereafter referred to as "NOAA Fisheries data.") <https://www.fisheries.noaa.gov/foss/f?p=215:200:5577815272788::Mail:NO>

²⁹ Massachusetts Audubon "Coastal Waterbird Program" <https://www.massaudubon.org/our-conservation-work/wildlife-research-conservation/coastal-waterbird-program> and NOAA Fisheries Data, op cit.

³⁰ State of Rhode Island, Department of Environmental Management, "Draft Rhode Island Wildlife Action Plan Species Profiles: Species of Greatest Conservation Need." <http://www.dem.ri.gov/programs/bnates/fishwild/swap/birdprof.pdf>

³¹ NOAA Fisheries Data, op cit.

³² National Audubon Society, "Long Island Sound." <https://www.audubon.org/conservation/project/Long-Island-Sound> and NOAA Fisheries Data, op cit.

³³ National Audubon Society, "Important Bird Areas: Peconic Bays and Flanders Bays, NY." <http://www.audubon.org/important-bird-areas/peconic-bays-and-flanders-bay> and NOAA Fisheries Data, op cit.

including the *Rufa* Red Knot.³⁴ Ensuring that coastal areas remain ecologically healthy would also support the state's commercial fishing and shellfishing industry, which pumps \$185 million into the state's economy each year, as well as the recreational fishing industry, which nets nearly 30 million pounds of fish and shellfish annually.³⁵

- **Delaware** would gain 31,216 acres in the CBRA System, while 118 acres and 43 structures that were incorrectly included in the System would be removed. Extending CBRA's protections to additional lands and wetlands in Delaware would help provide habitat for the 30 species of shorebirds that visit Delaware Bay during spring migrations, including the *Rufa* Red Knot.³⁶ Ensuring healthy coastal lands and waters will also support Delaware's commercial fishing and shellfishing industry, which contributes more than \$10 million to the state's economy annually, along with the recreational fishing industry, which catches more than 1 million pounds of fish and shellfish each year.³⁷
- **Maryland** would gain 19,008 acres in the CBRA System, while 118 acres and 81 structures that were incorrectly included in prior maps would be removed. Expanding the protective CBRA along the Chesapeake Bay and Atlantic Coast would help provide habitat for birds like the American Coot, American Oystercatcher, Brown Pelican, and Willet, which forage, nest, or migrate through Bay and coastal areas.³⁸ Maryland's commercial fishing and shellfishing industry would also benefit from additional habitat protections, helping to sustain the nearly \$69 million a year industry, along with the recreational fishing industry, which annually nets more than 14 million pounds of fish and shellfish.³⁹
- **Virginia** would gain 96,435 acres in the protective CBRA System, while 201 acres and 45 structures would be removed that were inaccurately included in prior maps. Expanding CBRA along the Commonwealth's Chesapeake Bay and Atlantic Coastal areas would benefit many species of birds, including Sandpipers, Sanderlings, Black Skimmers, Ospreys, and Gannets.⁴⁰ Ensuring that coastal habitat is protected would also support Virginia's commercial fishing and shellfishing industry, which pumps more than \$214 million in to the Commonwealth's economy, and the recreational fishing industry, which catches more than 25 million pounds of fish and shellfish each year.⁴¹

³⁴ U.S. Fish and Wildlife Service, Macdonald, Bridget, "Conserving the Nature of the Northeast - A new reality for plovers on the Jersey Shore," October 30, 2018, <https://medium.com/usfishandwildlifeservicenortheast/a-new-reality-for-plovers-on-the-jersey-shore-c5a739b61745> and FWS, North Atlantic-Appalachian Region, "Draft recovery plan for the rufa red knot (*Calidris canutus rufa*)," May 2021, https://fws.gov/northeast/red-knot/pdf/20210510_draft%20red%20knot%20recovery%20plan_final%20version%20for%20FRN.pdf and Bird Watcher's Digest, "Birding at Cape May," <https://www.birdwatchersdigest.com/bwdsite/explore/regions/northeast/new-jersey/birding-at-cape-may.php>

³⁵ NOAA Fisheries Data, op cit.

³⁶ Delaware Department of Natural Resources and Environmental Control, "The Delaware Shorebird Project," <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/shorebirds/> and "Delaware Bay Ecology," <https://dnrec.alpha.delaware.gov/fish-wildlife/conservation/shorebirds/bay-ecology/> and FWS, North Atlantic-Appalachian Region, "Draft recovery plan for the rufa red knot (*Calidris canutus rufa*)," May 2021, https://fws.gov/northeast/red-knot/pdf/20210510_draft%20red%20knot%20recovery%20plan_final%20version%20for%20FRN.pdf

³⁷ NOAA Fisheries Data, op cit.

³⁸ Chesapeake Bay Program website, <https://www.chesapeakebay.net/discover/field-guide/all/birds/shorebirds>

³⁹ NOAA Fisheries Data, op cit.

⁴⁰ "Birds of Virginia Beach," <https://www.visitvirginiabeach.com/blog/post/birds-of-virginia-beach/> and "Birdwatcher's Digest," <https://www.birdwatchersdigest.com/bwdsite/explore/regions/southeast/virginia/ecoregions-of-virginia.php>

⁴¹ NOAA Fisheries Data, op cit.

B. Expand the definition of a coastal barrier.

Modernizing CBRA to reflect the full array of coastal barriers that exist would yield taxpayer, environmental, and public safety benefits. Many areas function as coastal barriers along the nation's coasts. Barrier islands absorb the first impacts from storms, while sheltering back bays and wetlands that provide an additional line of defense against storm impacts. Indeed, undeveloped coastal barriers act as nature's speed bumps, slowing and absorbing the drubbing that storms and hurricanes bring to the coast. Expanding the definition of an undeveloped coastal barrier to include bluffs, spits and related lands, as well as coastal hazard areas, would reflect the myriad public safety and ecological benefits provided by these areas. The USFWS should update its definition of a coastal barrier to fully reflect the variety of landforms and associated aquatic habitat that help shelter and sustain the nation's coasts.

C. Direct the Fish and Wildlife Service to carry out a coastal hazard pilot project to identify areas that are and will be vulnerable to coastal hazards, including marsh migration corridors.

Sea level rise is already affecting the nation's coasts. Vitaly important habitat, like coastal wetlands, are being lost to saltwater intrusion and other sea level rise stressors. As waters rise, areas that are currently upland could eventually become shoreline. It is critical that these upland areas are identified and protected so that coastal habitat continues to exist for wildlife and commercially vital fisheries and shellfisheries.

The USFWS should carry out a coastal hazard pilot project to propose definitions and criteria for areas that are and will be vulnerable to coastal hazards, including flooding, storm surge, wind, erosion and sea level rise, and areas where barriers and associated habitat are likely to migrate with sea level rise. CBRA could play a critical role in protecting emergent and upland wetlands that will become increasingly important in the future. It would be economically and environmentally prudent to extend the CBRS's protections to these areas by prohibiting federal development expenditures in them. This would also help discourage development in areas that are likely to become the front line for storms and hurricanes in the future, which would help protect lives and reduce property damages.

NOAA has enumerated steps that should be taken to identify and protect areas that could provide important habitat in the future. NOAA developed wetland migration models that "visualize where inundation might occur when sea level rises and how wetland habitat might shift, taking into account sea level rise inundation, accretion, tide, and other important factors."⁴² NOAA stresses that it is important to establish buffer areas around current wetlands to lessen stressors on these systems and increase their resilience to an additional disturbance, such as rising seas. For example, "a buffer may decrease impacts from encroaching development and increased pollutant loads," allowing current wetlands to continue to provide habitat while also "protecting nearby developed areas from rising seas."⁴³ In the long term, buffer areas may have potential to become inland migration areas for wetlands as sea levels continue to rise.⁴⁴

To facilitate wetland migration in response to sea level rise, NOAA notes that:

⁴² National Oceanic and Atmospheric Administration, Coastal Services Center, "Shifting Shorelines, Shifting Conservation Strategies: Assessing Wetland Conservation Priorities in Maryland." Pp. 1-2.
<https://coast.noaa.gov/data/digitalcoast/pdf/shifting-shorelines-maryland.pdf>

⁴³ Ibid.

⁴⁴ Ibid.

Protected areas must be connected from the shoreline inland. Identifying and protecting corridors to connect these areas (such as forests, freshwater wetlands, or agricultural or other undeveloped lands with restoration potential), will enable wetland migration to occur.⁴⁵

The CBRA could provide both buffers for current wetlands as well as connectivity corridors that would enhance and allow wetland migration if the CBRA's focus were expanded to include these considerations. CBRA's mission of saving tax dollars, conserving coastal resources, and promoting public safety uniquely positions it as a tool for wiser coastal protection not only in the present, but in the future as well.

⁴⁵ Ibid.

Senator CARPER. Thanks so much for joining us remotely, and for those comments.

We are going to be joined by a couple other members of our Committee.

I understand Senator Graham is trying to get here, Ms. Cope, if he can.

Senator Capito is going to lead off the questioning, and I will follow. Thank you.

Senator CAPITO. Thank you both for your testimony, and thank you for what you are doing for the country and your State to preserve our natural resources.

I am going to start with you, Ms. Cope. You mentioned in your statements the coordination that you do with Ducks Unlimited and U.S. Fish and Wildlife. Can you give me some other examples of partnerships that you have that have been particularly successful, and are those partnerships growing, and how that impacts your ability to move forward with these programs?

Ms. COPE. Absolutely. Thank you for your question.

In utilizing Coastal Program funding, one of the projects we did was enhancing black rail habitat on private lands. So the Coastal Program was able to provide funding for us to go in and treat some vegetation that was deteriorating the quality of wood stork habitat as well as increasing predation on wood storks.

So without the Coastal Program funding and the participation of private landowners, we would not have been able to do that project, and we would not have been able to increase the wood stork nesting that is in South Carolina. So private landowners provide a critical partner in some of the things we do.

In addition, when we utilized one of our national coastal wetlands conservation projects, one of our properties was Samworth Wildlife Management Area. We went in and did some major renovations. We had tremendous storm damage as well as just dealing with effects of higher tides impacting the berms and impoundments. In that Ducks Unlimited was a partner, but we also partnered with Audubon South Carolina as well as the Open Space Institute, who brought resources and technical expertise to the table. They donated those as in kind contributions.

Through that, we were able to re-top 7,780 linear feet of dike as well as 13,425 linear feet of interior canal restoration, 1,460 linear feet of interior setback dike, thereby enhancing also 2,560 linear feet of berm along those eroded dikes, as well as installing four trunks and water control structures.

Because these other partners were willing to come to the table, share their resources and their technical expertise, we were able to develop a project that would enhance these wetland areas for not only wintering waterfowl, but many other non-game species and many species of concern.

Senator CAPITO. Great. I know South Carolina, having been to the South Carolina coast myself, it has beautiful and very great beaches. I know that because of that, there is a lot of infrastructure, hotels, people, and recreationists who want to enjoy those areas.

How do you balance that when you are looking at the conservation aspects with the infrastructure needs and just the human love of your coasts?

Ms. COPE. Thank you. That is a great question, and a huge challenge for us. Our natural resources and our coastal ecosystems are a tremendous draw to our State. And oftentimes when people come to visit, they determine that it is a wonderful place to live.

So we do have just under a 200 mile coastline. And there are significant development pressures along that coastline. What we have tried to do is utilizing funding of our partners as well as our own internal agency funding and programs to identify those areas that are most significant, and to try to protect those areas in perpetuity.

Our goal is not only to manage them to enhance natural resources, but to open them up for public use and enjoyment. We believe that people will conserve what they appreciate and what they love. And so by providing them these public areas, by protecting the resources on these areas and managing them for not only water quality but numerous fish and wildlife species, we can instill a conservation ethic and a passion for conservation in not only our citizens but also our visitors, so in hopes that when they go back home, even if they don't move to South Carolina, they will support conservation back in their own States.

Senator CAPITO. Right. So you have a 200 mile coastline. If you were to put a percentage, or let's say a 1 to 10 scale of repairs that have been made, what else needs to be done, are you at a 7? Are you at a 10 but constantly redoing? Or are you at a 1, which I know you are not at a 1, so we can eliminate that.

But if you understand the point of my question, it is how much more work is there to be done? I know it is a constant reassessment of where you are. But there certainly have to be places that still are in great need.

Ms. COPE. Absolutely. And this is really an off the cuff estimate. I would say we are probably at a 6 or a 7. We have been incredibly successful at moving the needle on restoration projects as well as habitat protection projects. But there is still a lot to be done, especially on private lands.

But one of the biggest challenges we have is dealing with climate change and just the effects of Mother Nature. So it is a continuous effort. The dikes on our impoundments continue to settle and wear away, as well as managing invasive species. So we are never finished, but we are committed to the task and will continue to move the needle and do all that we can.

Senator CAPITO. Good. Let me ask one other question. This came up when we were considering the transportation bill that we very successfully put together for the big infrastructure bill, which were, and I think, Senator Graham, this was an area of concern for him, the exit routes in the Myrtle Beach area for hurricane evacuation.

Do you work with the DOT or State DOT, are you a part of that strategy that the State has tried to put together to make sure people can be safe?

Ms. COPE. Yes, ma'am. I have not worked with those individuals directly, but as an agency we do have staff who work with them. A couple of key things we look at. One would be the routes of the

proposed interstate, making sure that we minimize impacts to natural resources, but also identifying proper mitigation alternatives.

So while we work very hard to protect our natural resources, we understand needs of public safety and transportation. And we are known for working with our partners and our sister State agencies to try to find a balance and minimize impacts but meet the needs of our citizens.

So one of our primary focuses has been assuming funding for I-73 or other roads go into effect, how can we protect land in other areas and mitigate the impacts of those.

Senator CAPITO. Thank you.

Ms. COPE. My pleasure.

Senator CARPER. Thanks, Senator Capito. I am going to give you a break for a minute, Ms. Cope, and ask a couple questions of Dr. Gray, then come back to you.

Dr. Gray, are you still with us?

Ms. GRAY. I am still here.

Senator CARPER. That is good.

Dr. Gray, your testimony focused on Audubon's support for four specific Fish and Wildlife Service coastal programs. But the National Audubon Society actually has, as I understand it, a broader national coast strategy.

My question would be, would you elaborate on the importance of this broader coastal restoration strategy, and share with the Committee more about why Audubon invests time and resources into our Nation's coasts?

Ms. GRAY. Absolutely. Our coastal areas are of course important to our seabirds and shorebirds that rely on them. Many areas along both the Pacific and Atlantic flyways are critical stopover sites for our precious natural resources, of which birds are one huge piece.

We also invest in coastal restoration and protection and conservation efforts because not only do they provide important habitat for critical nesting birds, but they also provide buffers for coastal communities, which are our constituents, with several million members that support us and advocate on our behalf.

So we have critical habitat needs that are involved. We have important resiliency needs that play into protecting coastal communities. Also, we know that many of these coastal habitats also serve as carbon sinks. They are important sources of carbon sequestration as our temperature continues to rise, and we need to take action. These can serve as natural infrastructure, not only for helping us adapt to the effects of climate change that Senator Whitehouse spoke so eloquently about, but also help us mitigate greenhouse gas emissions by storing and capturing carbon out of the atmosphere.

So for all those reasons, habitat protection to people who live in these coastal communities, and carbon sequestration and storage. That is the underlying reason for our broader coastal community program.

Senator CARPER. Good. Thanks for that explanation.

A question on landowner equities if I could. The National Audubon Society advocates for sound policies to protect coastal habitats. But I understand you also have some skin in the game as a coastal landowner. Would you just take a minute and share with the Com-

mittee more about Audubon's equities as a landowner and how as a landowner Audubon has benefited from the Fish and Wildlife Service coastal programs that we are discussing today?

Ms. GRAY. Of course. I would like to highlight a specific project, which is the Blackwater Salt Marsh rehabilitation project that we have been doing in Maryland. We definitely have a number of projects with the U.S. Fish and Wildlife Service on coastal work throughout the U.S. But the Blackwater Salt Marsh rehab program in Maryland is one of the more important ones, specifically because it allows us to both better serve the communities that are there and also the wildlife that depends on that region.

So we do rely on vital funding from the U.S. Fish and Wildlife Service. Frankly, we wouldn't be able, without that funding, to spend the time and energy needed to have an impactful presence in the places that we work. So as climate change increases in its impact, as it threatens not only the wildlife and the communities that are frontline, frankly, in the fight against sea level rise and flooding, including sunny day flooding that we see.

It is really critical, our partnerships with agencies like the U.S. Fish and Wildlife Service, it helps us build resiliency; it helps us protect both wildlife and people from the impacts of storm and flooding. As you all know, these are just becoming more and more intense over the last few years. We anticipate that trend will continue into the future.

Senator CARPER. All right. Thanks for explaining that.

Last question I am going to ask of you, Dr. Gray, then I am going to yield to Senator Graham, welcome.

I will turn to you next, Lindsey.

Last question for Dr. Gray from me, at least. Reinvesting savings that are generated from CBRA, Coastal Barrier Resources Act, your testimony mentions billions of dollars, billions of dollars in taxpayer savings generated by the Coastal Barrier Resources Act. That would be music to the ears of former Delaware Congressman Tom Evans, who was very much involved in its creation.

My question is, do you think Congress should consider reinvesting a portion of those savings into proactive habitat conservation and community resilience?

Ms. GRAY. The quick answer to your question, and thank you for that question, Chairman Carper, is yes. There are a number of scientific studies that show it is actually less expensive to be proactive and invest in this type of habitat restoration and conservation up front rather than waiting for hurricanes and other natural disasters to strike. In addition, it is definitely less expensive to try to keep populations of our birds and wildlife healthy rather than continually trying to fight against extinction, when species are already threatened and endangered.

So I would absolutely advocate for reinvesting in a proactive approach, in addition to a reactive approach, which we know we also will do. But yes, I think National Audubon Society would be highly supportive of that.

Senator CARPER. All right, great. Thank you so much.

Senator Graham, we are glad to see you. Ms. Cope has been holding forth quite ably and awaiting your arrival. Thank you so

much for recommending that we invite her to testify today. She is doing a great job.

Senator GRAHAM. Thank you very much, Mr. Chairman. I really appreciate the Committee. You do a good job, and your Ranking Member. It is a pleasant place to work, and good causes.

Ms. Cope, thank you so much. I appreciate your coming up here and sharing your testimony with us. I really am not going to ask any questions; I just want to make a statement.

It seems that we have a hard time getting anything done in Washington. This is an area where we are getting things done. This is a Committee where we are getting things done. So the Coastal Habitat Conservation Act that I am sponsoring with Senator Cardin from Maryland codifies an existing program that has been around since the 1990s that allows the Department of Natural Resources in South Carolina to partner with Ducks Unlimited, all kinds of different groups, to put land in conservation. It is voluntary; the money comes from fees collected from the tourism and fishing industry. Now putting it into law, codifying it, having it authorized, I think will take it to the next level.

So, Mr. Chairman, I just want to thank you for inviting Ms. Cope.

We are very proud of you, Emily, at home. You do a great job.

God has blessed South Carolina with an incredible coastline and a beautiful State. We are going to try to keep it that way. We are going to make it business friendly but partner with the private sector to put land in conservation. That is a win-win for sportsmen, for just the beauty of South Carolina. And this is a voluntary program, collected, the money comes from fees from the boating and sporting community.

I want to say on behalf of our entire delegation, thank you for what you do. We are very proud of the work being done by the Department of Natural Resources.

Thank you, Mr. Chairman.

Senator CARPER. Thank you so much again for recommending Ms. Cope. I am going to grill her now further. Thank you so much for bringing her to our attention.

Ms. Cope, I want to ask you a question with respect to Coastal Program support for endangered species. Your testimony acknowledges that the State of South Carolina uses some of the funding it receives from the Fish and Wildlife Service program to support the recovery of endangered and threatened species, such as the black rail bird and loggerhead sea turtle, species I am sure you are familiar with.

Would you take a minute and elaborate on that work for us, please?

Ms. COPE. Yes, sir, I appreciate it. The black rail is a very secretive marsh bird. And it was listed as federally threatened. In South Carolina, we really did not know much about how many of these were in our areas, and specifically where we would find them.

So through the Coastal Program funding we were able to conduct additional surveys and locate them on some of our properties. We were able to learn more about the types of habitat that they utilize. This in turn led us to be able to manage our impoundment slightly differently, so that we could provide additional habitat for the spe-

cies in hopes of increasing its reproduction and helping to recover the species.

Some additional ones on the sea turtles is, sea turtles are very prone to predation from coyotes and feral hogs on their sea turtle nests on the beach. So we utilized Coastal Program funding to go in and initiate trapping efforts on one of our properties, the Yawkey wildlife area in Georgetown County, to protect these sea turtle nests.

In looking at it as we did the trapping, depredation of these nests decreased significantly, thereby increasing reproduction of our sea turtles and helping to further restore the population. Our goal through all of these efforts is to recover these species so that we can eventually work toward delisting and down listing the species that are listed through the Endangered Species Act.

Senator CARPER. All right. Thank you for that.

I understand, I think you said in your testimony that South Carolina's coastal resources support your local communities. That is our experience in Delaware as well. People travel from all over the world to visit our five star beaches and view our wildlife. And when they do, they drive what is already a thriving tourism economy.

Would you take a minute for us and just elaborate on how South Carolina's coastal resources support local communities and economic growth?

Ms. COPE. Absolutely. So historically speaking, hunting and fishing are key recreational activities in South Carolina. They are part of our culture and who we are. As times have changed, we have seen an increase in more of the non-traditional outdoor recreation opportunities.

So our coastal resources are very diverse. We have people who run commercial hunting and fishing operations. We have people who travel simply to hunt and fish on their own. But we have an even larger number of constituents who visit South Carolina just simply to enjoy the scenic views of our coastal areas, to go boating and kayaking, to go birdwatching and do nature photography.

So all of those combined together not only provide opportunities for local people to spend money in these areas and support the local economies, but it also brings people in from all across the United States to see these coastal areas. So they support the local economies just simply through their normal tourism dollars.

Senator CARPER. OK. One more question. We have some people, I mentioned to Senator Capito, there are some young people sitting out in the audience here, behind you over your left shoulder, Ms. Cope. I think some of them, at least one of them, might be an intern who is working with Senator Cardin's office. Several others are interns in Senator Shelby's office.

I am going to telegraph my pitch. When we have finished the questioning, I will ask if you might like to share a message while these young people are here that you would like for them to take with them once their internship on Capitol Hill is over this summer.

My last question of you, Ms. Cope, deals with the collaborative nature of coastal projects in South Carolina. Your testimony ex-

plains really well how different Federal agencies and partners have come together to support coastal projects in South Carolina.

My question would be, would you say that these partnerships are enabling more landscape scale restoration than if each of these entities were working independently?

Ms. COPE. Absolutely. By working together and having these partnerships, we are moving the needle on conservation so much more significantly than if we were doing it alone. And what we have found is that by creating the local partnerships, working with other State and Federal entities and especially our private land-owners and private organizations, we all have different resources to bring to the table. We all have different contacts.

So it really is finding the right tool for the job and getting the right people to the table. We share a commitment and a passion for conservation. So by working together and creating a team, then we are incredibly successful. We leverage each other's resources, and we get things done much more effectively and efficiently than any of us could alone.

Senator CARPER. All right. A follow up if I could. I said earlier two of my favorite words are "for example." With that in mind, are there any examples of larger scale projects that your State of South Carolina is supporting that you might share with us today?

Ms. COPE. As far as new projects?

Senator CARPER. Yes.

Ms. COPE. So we are working on multiple land acquisition projects in our State, on our coast, which will protect, one will protect about another 7,000 acres of land along one of our coastal river systems. That not only protects water quality as it is flowing out to the estuary but also protects habitat for gopher tortoises as well as many wading birds that are species of concern.

So we have a long list of habitat acquisition projects that are going on. We are currently working on some more restoration projects on our waterfowl areas to continue to get a handle on better management of these areas.

I would offer up, I am sure Senator Graham would agree, if any of you would like to come to South Carolina and see what we are doing on the ground and visit our great State, we would be more than delighted to host you.

Senator CARPER. I love that. I always like to put in plugs for inviting people to come to Delaware. It is only fair that you do that for South Carolina, or West Virginia.

Senator Capito, is there anything else you would like to do before we recognize some of these young people in the audience?

Senator CAPITO. No, I just appreciate everybody's testimony. It has been very interesting. Thank you very much.

Senator CARPER. Thank you.

I am going to ask, if there is in our audience today at least one intern here representing Senator Cardin's office, would you raise your hand?

Hello, are you from Maryland? Good. Welcome.

Do we have any interns from Senator Shelby's office?

That is good.

Dr. Gray, you couldn't see this, but we have a number of folks from Senator Shelby's office. Do any of you live in Alabama? If you live in Alabama, raise your hand.

If you live in Delaware or West Virginia, raise your hand.

All right. If you would like to live in Delaware or West Virginia, raise your hand.

[Laughter.]

Senator CARPER. Dr. Gray, I am going to ask you and Ms. Cope if you would like to share some words of wisdom. Thinking back, these people look like they are probably in their early 20s. Maybe some thoughts you would like to share with them.

Senator CAPITO. Could I add, I have Baylor behind me, and she is my intern here. So direct it to her as well.

Senator CARPER. Baylor, like the university?

[Remark off microphone.]

Senator CARPER. That is great.

Senator CAPITO. She goes to Alabama, though. There is a conspiracy here.

[Laughter.]

Senator CARPER. Ms. Cope, any thoughts?

Ms. COPE. Absolutely, my pleasure, and thank you for the opportunity.

It is so refreshing to see young people who have an interest in our political system and especially conservation and the environment. So I would just encourage each and every one of you to continue to learn, continue to get involved in conservation as well as the political arena. Because we can do a lot on the ground as far as direct management.

But in terms of really moving the needle for conservation, it happens through the political arena. Because if we didn't have the support of our congressional delegations to support funding, and work on critical legislation to help protect and manage our resources, then we would not be able to move things forward.

So whatever path you take down the road, always remember the importance of it. As I told some friends of mine yesterday, please remember the importance of voting. Because every vote matters. It is worth taking the time to do your research and select candidates that are truly going to represent you and your State well.

Senator CARPER. Very well said.

Dr. Gray, are you still with us?

Ms. GRAY. I am. Thank you for the opportunity to say a few words to the interns. I am happy to share that I have actually worked with each of the States represented today. And so it is a real pleasure to participate today in the hearing.

The words I would leave you all with is, we are in a climate and a biodiversity crisis. I doubt this is news to anyone who is sitting here today. But I do believe, while this planet is in crisis, we inherited this planet from past generations, we are deeding it to future generations. I think we have about a decade to get this right and set the planet on a course that will continue to serve us moving forward as human beings and all the other species that share it.

I love what Emily Cope said; I think what you are doing is extremely important. If the planet doesn't continue to survive, none of us will. It is absolutely essential to our well being, to our food

security, to our energy security, to our livelihoods, and to our health and well being and happiness.

Continue to do what you are doing. National Audubon Society focuses on education, on advocacy, and on the ground projects. Every organization that has been mentioned today, whether it is a political organization, an agency, a non-profit organization, needs talented young people to come and work with it and to continue to make this world a better place.

So I would echo what Emily said; vote, make sure you support people who support the environment, and be active. Continue to speak up, continue to intern, and remember that this precious planet is, at the end of the day, all that we have.

Senator CARPER. That is great. Thank you.

I have a thought I want to share on a personal note also with the students who are here, the interns who are here.

Any comment you would like to offer?

Senator CAPITO. I think it is a great way to be here on Capitol Hill to see not only Government working, but to meet so many other bright young people around the country who are motivated to learn about being public servants.

I would say to my interns, which I always do, dig in, and have a good time, and talk to all your friends about the importance of what Ms. Cope said, voting and being a participant. If you are on the sidelines and don't participate, you don't have the right to complain. So get in the game. It is a very exhilarating process.

Senator CARPER. Thank you very much.

This is a Committee that has been around for quite a while. We have 20 members, 10 Democrats, 10 Republicans. Senator Capito and I are privileged to lead the Committee at this point in time. And we work across the aisle very well. We were both born in West Virginia. People ask me, if I couldn't be Governor, I used to be Governor of Delaware, they would say, after you are Governor of Delaware, what would you like to do? I would say, I would like to be Governor of West Virginia. Well, you can't do that.

[Laughter.]

Senator CARPER. But we have the opportunity to work together on a whole range of issues. Much of the legislation that we pass here is passed unanimously. The large infrastructure bill was transformational, signed by the President last November or December, was adopted in this Committee unanimously, for all the roads, highways, bridges, pieces of surface transportation, all the water pieces, water infrastructure legislation, all was adopted unanimously here and later made part of the infrastructure bill.

When I was the age of these young people here, Senator Capito, I actually had a chance to visit Washington, DC, for the first time. I was a naval ROTC midshipman. I ended up being stationed later in Corpus Christi at a naval air station.

My roommate was from Baltimore. We had the opportunity to visit Washington, DC, at one time. It was 1965, a million years ago. I had some time on Capitol Hill, and I didn't know what was going on. I looked around, and wandered into the Rayburn Building over on the House side. I asked one of the security people, I said, is there anything going on here? I would like to find a hearing and sit in on a hearing if I could.

Lo and behold, there was a hearing going on. It was the Civil Rights Act of 1965. And I wandered into the Judiciary Committee hearing room chaired by Emmanuel Celler. I had the opportunity to see and hear one of the most transformational bills regarding voting rights in this country ever debated and adopted at a very young age, really at your age.

That was part of what inspired me to become involved publicly. I did a lot of years in the Navy after that, but ultimately ended up here with Senator Capito.

Senator CAPITO. My father was on that committee.

Senator CARPER. Wow. Small world.

Senator CAPITO. He was in the room.

Senator CARPER. In the room, wow.

I would close with this. Actually I have two closes. I love to give commencement speeches. We get to do high school commencement speeches and college commencement addresses. I got to do one last month, with the President of the United States who spoke at the University of Delaware. I got to speak as well.

I gave a 10 word commencement address, 10 words. Then I had the graduates stand up, and I had them repeat the 10 words. I am not going to do that with you guys today. But the 10 words are, the first two are, aim high. Aim high is first. The next two are work hard. The next four are embrace the Golden Rule, treat other people the way we want to be treated. The last two are don't quit. Aim high, work hard, embrace the Golden Rule, and don't quit.

I would urge you to keep those in mind as you go forward. They might help guide you. They have certainly helped to guide me in the years I have been privileged to live and to be involved here.

Again, to our witnesses here and all of our panelists, but especially the last two, thank you so much for joining us. I want to thank our first panel of witnesses as well, and those of our Committee who were able to join us.

I want to thank our staffs for the work that led up to this hearing today. We are grateful to our witnesses especially for your work at a time when we face a lot of challenges. But there is also a lot of opportunity. I like to say in adversity lies opportunity. But there are opportunities when it comes to conserving our coastal ecosystems.

Now I want to ask unanimous consent to submit for the record materials that relate to today's hearing. That includes testimony from Senators Klobuchar and Portman in support of the Great Lakes Fish and Wildlife Restoration Reauthorization Act. I also have a letter from some 33 advocacy groups, including conservationists, hunters, anglers, and advocates in support of the Coastal Barrier Resources Act.

Finally, last but not least, I am including a letter from the Coalition for the Delaware River Watershed in support of the Delaware River Basin Conservation Reauthorization Act.

Hearing no objection, so ordered.

[The referenced information follows:]



U.S. Senators Amy Klobuchar & Rob Portman
Written Testimony
Senate Committee on Environment and Public Works
Testimony in Support of S. 3069, the Great Lakes Fish and Wildlife Restoration
Reauthorization Act
June 15, 2022

Chairman Carper, Ranking Member Capito, and members of the Senate Committee on Environment and Public Works, thank you for holding this important hearing to examine legislation to protect and strengthen coastal habitats and communities, including legislation we introduced to reauthorize the Great Lakes Fish and Wildlife Restoration Act (S. 3069).

The Great Lakes are one of our nation's most important natural resources, providing drinking water, outdoor recreation, wildlife habitat, and economic opportunity to millions of residents throughout the region. The Great Lakes and their watersheds provide habitat for some of our nation's most important wildlife species, such as the moose, bald eagles, and Canada lynx. The five lakes and their connecting rivers and channels are home to numerous fish species including walleye and trout. Because these critical resources face significant threats from pollution, invasive species, and habitat degradation, it is even more important that we maintain investment in proven programs that assist on-the-ground restoration activities.

The *Great Lakes Fish and Wildlife Restoration Reauthorization Act* would reauthorize the successful Great Lakes Fish and Wildlife Restoration Act (GLFWRA) through Fiscal Year 2027 at its current authorization of \$6 million annually. The GLFWRA provides grants to States, Indian Tribes, and other entities for cooperative conservation, restoration, and management of fish and wildlife resources and their habitats in the Great Lakes Basin. Since 1998, the program has provided \$32 million in federal funding to 193 restoration, research, and regional projects, and more than 132 organizations have contributed \$15 million in non-federal partner support. Combined, this program has provided more than \$47 million worth of benefits to the Great Lakes Basin.

The GLFWRA also serves an important role in the U.S. Fish and Wildlife Service's implementation of the Great Lakes Restoration Initiative (GLRI). Projects funded through GLRI but implemented by GLFWRA include wetland restoration, habitat mapping, invasive species management, and culvert replacement and renovations to support fish passage.

The *Great Lakes Fish and Wildlife Restoration Reauthorization Act* enjoys bipartisan and bicameral support. We were joined in introducing the bill by our Senate Great Lakes Task Force colleagues, Senators Stabenow and Young. The House companion legislation introduced by Representatives Dingell and LaHood, H.R. 5973, passed through the U.S. House of Representatives unanimously on April 27, 2022. Importantly, the bill has been endorsed by a variety of conservation organizations and sportsmen groups.

We believe that reauthorizing this program as soon as possible will ensure that current efforts to restore and protect the Great Lakes will not be unnecessarily interrupted. Thank you again for the opportunity to testify in support of the *Great Lakes Fish and Wildlife Restoration Reauthorization Act*. It is our hope that you can support this bipartisan effort. Thank you.

Committee on Environment and Public Works
U.S. Senate
Washington, DC

June 13, 2022

Dear Senators,

Our organizations represent taxpayer advocates, conservationists, fiscal conservatives, insurance companies, state officials, birdwatchers, and hunters and anglers who support the Coastal Barrier Resources Act (CBRA). The CBRA is a bipartisan success story that saves federal tax dollars, promotes public safety, and protects the coastal environment. Because of its many benefits, we urge you to support legislation that would expand and strengthen the CBRA when it comes before the Environment and Public Works Committee for consideration.

The CBRA prohibits most federal expenditures on 3.5 million acres of undeveloped coastal lands and wetlands along the Gulf of Mexico, Atlantic Coast, Great Lakes, Puerto Rico and the U.S. Virgin Islands. By shielding these undeveloped areas from most federal expenditures, the CBRA has saved the federal taxpayer roughly \$9.5 billion and is projected to save \$11-108 billion over the next 50 years.

Undeveloped islands, beaches, inlets and wetlands increase upland communities' resilience against hurricanes and sea level rise. CBRA areas act like nature's speed bumps, slowing down storm-driven waves and helping to buffer impacts from climate change. Nationwide, coastal wetlands, like those in the CBRA System of protected areas, provide more than \$23 billion in storm protection services for coastal communities annually.

The CBRA-protected areas also provide important habitat for birds, fish and shellfish, and other wildlife. Coastal wetlands and estuaries in the CBRA System support commercial and recreational fisheries, which contribute \$244 billion to the U.S. economy annually. These areas are increasingly important habitat for birds, as well. Nationwide, bird watching is a \$107 billion per year industry that positively impacts 47 million people per year.

The Environment and Public Works Committee will soon consider draft legislation that could expand and strengthen the protective CBRA System. We strongly support the inclusion of these important provisions in CBRA-related legislation:

1. **Save tax dollars, protect the environment and promote public safety.** In April, the U.S. Fish and Wildlife Service (USFWS) recommended that nearly 278,000 acres be added to the protective CBRA System along the coasts of nine states that were damaged by Hurricane Sandy in 2012 (NH, MA, RI, CT, NY, NJ, DE, MD and VA.) Adding these areas to the CBRA System would help save tax dollars, protect vitally important habitat, and promote public safety in hurricane- and storm-prone areas.

2. **Build greater climate resiliency.** Areas protected by the CBRA System should include coastal areas such as bluffs, spits and related lands, as well as areas subject to coastal hazards, in order to maximize CBRA's important benefits. The USFWS should conduct a pilot project that would identify additional areas for inclusion in the CBRA System that are vulnerable to coastal hazards, such as flooding, storm surge, erosion and sea level rise, and areas where coastal barriers and associated habitat are likely to migrate as seas rise.
3. **Encourage transparency around CBRA and compliance with its restrictions.** People selling property in CBRA areas should disclose that its location is in a CBRA zone, and federal agencies should annually certify that they are complying with CBRA's federal funding restrictions.

As the Committee considers CBRA-related legislation, it is also important to ensure that undeveloped coastal areas included in the CBRA System continue to be protected from sand mining, which can destroy habitat and place nearby communities at risk from increased erosion. A June 2021 federal report found that sand mining can cause downdrift shoreline erosion that can leave communities more vulnerable to sea level rise, hurricanes, and storms. A report by the U.S. Army Corps of Engineers found that sand mining can take away sand that downdrift communities depend on. The Corps also reported that ecosystems can be harmed from mining impacts, including harm to the coastal foodchain that supports economically important sport and commercial fishing industries. Areas in the CBRA System were included because of their ecological value and capacity to buffer upland communities, and their crucial functions should not be harmed by taxpayer-funded sand mining.

The CBRA has a long track record of bipartisan support stretching back to President Ronald Reagan, who described it as, "saving American taxpayers millions of dollars while, at the same time, taking a major step forward in the conservation of our magnificent coastal resources." Both Democrats and Republicans in Congress and the White House have supported additions to the CBRA, including legislation in 1990 that was signed by President Bush, and legislation in 2018 signed by President Trump.

On behalf of our members, we urge you to ensure that CBRA legislation expands the CBRA System, builds CBRA's climate resiliency, ensures transparency and compliance with the CBRA program, and protects CBRA areas from federally-funded, destructive sand mining.

Sincerely,

Brian Moore
Vice President for Coastal Policy
National Audubon Society

Jerry Theodorou
Director, Finance, Insurance & Trade Program
R Street Institute

Franklin Nutter
President
Reinsurance Association of America

Jessie Ritter
Director of Water Resources & Coastal Policy
National Wildlife Federation

Steve Ellis
President
Taxpayers for Common Sense

Christy Plumer
Chief Conservation Officer
Theodore Roosevelt Conservation
Partnership

Sierra Weaver
Coast & Wetlands Program Lead
Southern Environmental Law Center

Cathleen Breslin Berthelot
Director of Federal Affairs
Environmental Defense Fund.

Julie Wraithmell
Executive Director
Audubon Florida

Jim Brown
Director of Policy
Audubon Mid-Atlantic

Bob Lukinich
Conservation Chair
Southern Maryland Audubon Society

Kurt Schwarz
Conservation Chair
Maryland Ornithological Society

Tim Dillingham
Executive Director
American Littoral Society

Lisa Gonzalez
Vice President & Executive Director
Audubon Texas

Chad Berginnis
Executive Director
Association of State Floodplain Managers

Maggie Ostdahl
Conservation Policy Manager
National Aquarium (Baltimore)

Joel Scata
Senior Attorney, Water & Climate Team
Natural Resources Defense Council

Ben Prater
Director Southeast Program
Defenders of Wildlife

Cyn Sarthou
Executive Director
Healthy Gulf

Michael Burger
Executive Director
Audubon Connecticut and Audubon New York

Ken Cohen
President
Prince George's County (MD) Audubon Society

Jonathan Stone
Executive Director
Save The Bay (RI)

Julia Dietz
Policy Director
Audubon South Carolina

Emily Cedzo
Senior Program Director of Land, Water & Wildlife
South Carolina Coastal Conservation League

Manley Fuller
Vice President of Conservation Policy
North Carolina Wildlife Federation

Steve Holmer
Vice President of Policy
American Bird Conservancy

Colette Buchanan
President
Monmouth County (NJ) Audubon Society

Stefanie Sekich-Quinn
Coast & Climate Initiative, Senior Manager
Surfrider Foundation

Mark Southerland
Legislative Director
Safe Skies Maryland



June 13th, 2022

The Honorable Tom Carper
Chair, Committee on Environment & Public
Works
United States Senate
410 Dirksen Senate Office Building
Washington, D.C. 20510

The Honorable Shelley Moore Capito
Ranking Member, Committee on
Environment & Public Works
United States Senate
456 Dirksen Senate Office Building
Washington, D.C. 20510

Dear Chairman Carper and Ranking Member Capito:

On behalf of the Coalition for the Delaware River Watershed, I write in support of S. 3767 — the Delaware River Basin Conservation Reauthorization Act — which provides a framework and resources for advancing protection and restoration of the ecologically and economically significant Delaware River Basin.

The Coalition for the Delaware River Watershed unites organizations working throughout the multi-state region to enhance their capacity to effectively advocate and work towards our shared goal of protecting and restoring the Delaware River Basin. Our coalition represents over 175 watershed associations, land conservancies, outdoor recreation and sporting interests, national organizations, and other stakeholder groups working throughout the 13,539 square miles of the Watershed. The bill also has broad and deep support among a diverse array of stakeholders in the communities we represent.

Congress clearly affirmed the importance of protecting the natural resources of the Delaware River Watershed when it passed the Delaware River Basin Conservation Act in December 2016 with bipartisan support and leadership. The legislation directed the U.S. Fish and Wildlife Service to create and facilitate the Delaware River Basin Restoration Program, a non-regulatory effort that leverages private investment, regional partnerships, and local knowledge to protect and restore the resources of the watershed. The Service has since successfully executed four annual rounds of funding, and is finalizing the fifth, through the Delaware Watershed Conservation Fund, a grant program which Congress required to be the core of the program. Projects include those that improve public access and recreational opportunities, support restoring and protecting vulnerable fish and wildlife habitat, and protect riparian, stream, and wetland habitat.

Since 2018, the Delaware Watershed Conservation Fund has awarded \$26.6 million to 123 projects, which generated \$46 million in match, for a total conservation impact of \$72.6 million. These projects will collectively restore over 20 miles of riparian habitat and 75 miles of stream habitat, conserve and enhance 882 acres of wetland habitat, restore 254 acres of floodplain, improve 22,309 acres of forest habitat and open 4,695 acres for public access. In FY22 alone, the National Fish and Wildlife Foundation, which administers the grants, received a total of 61 proposals requesting \$26.5 million dollars. This amount reinforces a continued need to improve the health and resources of the Watershed for generations to come.



While historically a minimum of a one-to-one non-federal match is required for the grant program, the program is structured to increase the competitiveness of grants that exceed that threshold to leverage the maximum amount of non-federal dollars. To make the program accessible to a wider array of prospective grantees, reauthorization would allow a 90% federal investment with 10% match for small, rural, or disadvantaged communities and the Secretary may waive all match requirements at their own discretion. The Coalition believes this will help reduce funding disparities in a locally driven and cost-effective way, and tap into the tremendous unmet demand to do work throughout the watershed. This type of approach is an efficient and effective way to ensure that limited resources are targeted to where they can provide maximum benefit.

The Delaware River Basin is the five-state region that drains into the Delaware River and Delaware Bay. Along with its historic importance for our nation, the river basin is a powerhouse for the economy and home to more than 8 million people. Significantly, the watershed serves as the source of clean drinking water for 13.3 million people, or roughly five percent of the U.S. population, in the densely populated Mid-Atlantic region.

The Delaware River Basin is an historical icon that is home to nationally significant ecological and recreational assets, including one of the country's most visited national parks, the Delaware Water Gap. It also hosts more than 400 miles of National Wild and Scenic Rivers, six National Wildlife Refuges, and Delaware Bay is one of the largest systems in the National Estuary Program. The basin provides \$21 billion worth of ecosystem services each year, including air and water filtration, nutrient recycling, flood and stormwater control, soil conservation, and globally significant habitat for migratory birds and resident and migratory fish species.

Reauthorization of this critical and well-established federal program would continue to affirm the nationally and historically significant Delaware River Watershed as a resource worth protecting. In order to fully realize the benefits of the Act and help ensure a healthy watershed for generations to come, we must provide continued support to the Delaware River Basin Restoration Program and reauthorize the Program before the Act lapses in September 2023. If passed, the program and restoration successes would continue through 2030.

We greatly appreciate your leadership and thank you for considering the reauthorization of the Delaware River Basin Conservation Act. Please contact me at 701-741-3894 or Kelly.knutson@Njaudubon.org if you have any questions. The Coalition looks forward to working with you on this important legislation.

Sincerely,

Kelly Knutson
Director, Coalition for the Delaware River Watershed

Senator CARPER. Senators will be allowed to submit written questions for the record through the close of business on Wednesday, June 29th, 2022. We will compile those questions and send them to our witnesses and ask our witnesses to reply by Wednesday, July 13th, 2022.

With that, before we adjourn, I want to say to the interns who are here, I am going to ask you to come up and join us at the front of the room. We will take a quick picture, if Senator Capito wouldn't mind, and maybe Baylor will join us as well. We will take a quick picture for posterity.

With that, this hearing is adjourned. Thank you all.

[Whereupon, at 11:30 a.m., the hearing was adjourned.]

[The legislation related to this hearing follows:]

117TH CONGRESS
1ST SESSION

S. 2194

To authorize the Secretary of the Interior, through the Coastal Program of the United States Fish and Wildlife Service, to work with willing partners and provide support to efforts to assess, protect, restore, and enhance important coastal areas that provide fish and wildlife habitat on which Federal trust species depend, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 23, 2021

Mr. CARDIN (for himself and Mr. GRAHAM) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To authorize the Secretary of the Interior, through the Coastal Program of the United States Fish and Wildlife Service, to work with willing partners and provide support to efforts to assess, protect, restore, and enhance important coastal areas that provide fish and wildlife habitat on which Federal trust species depend, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Coastal Habitat Con-
3 servation Act of 2021”.

4 **SEC. 2. FINDINGS AND PURPOSE.**

5 (a) FINDINGS.—Congress finds that—

6 (1) an effective means of conserving and recov-
7 ering Federal trust species and promoting self-sus-
8 taining populations of those species is to protect,
9 conserve, restore, and enhance the habitats of the
10 species;

11 (2) coastal ecosystems are highly dynamic areas
12 that provide valuable breeding, nursery, staging, and
13 resting areas for a rich diversity of fish, shellfish,
14 migratory birds, and mammals;

15 (3) coastal areas support—

16 (A) 40 percent of the refuges within the
17 National Wildlife Refuge System;

18 (B) 40 percent of the threatened species or
19 endangered species, including 75 percent of the
20 listed mammals and birds, under the Endan-
21 gered Species Act of 1973 (16 U.S.C. 1531 et
22 seq.); and

23 (C) 50 percent of the fisheries conservation
24 activities of the Service;

25 (4) although coastal counties make up only 10
26 percent of total contiguous United States land area,

1 coastal areas are home to more than 40 percent of
2 the human population of the United States, which is
3 placing enormous pressure on coastal ecosystems;

4 (5) because coastal deterioration can cause
5 fragmentation and landward migration of coastal
6 ecosystems, as well as create new habitats along
7 shorelines, it has become necessary to incorporate
8 adaptation assistance into coastal ecosystem man-
9 agement strategies;

10 (6) in addition to serving as fish and wildlife
11 habitat, coastal ecosystems—

12 (A) serve as an important source of food;

13 (B) protect coastal communities, including
14 infrastructure in those communities, against
15 floods;

16 (C) filter polluted runoff; and

17 (D) provide valuable commercial and rec-
18 reational benefits to coastal communities and
19 the United States;

20 (7)(A) fish and wildlife conservation is a re-
21 sponsibility shared by citizens and government; and

22 (B) public-private partnerships should be sup-
23 ported through technical assistance and financial as-
24 sistance to conduct coastal habitat assessment, pro-

1 tection, planning, restoration, and enhancement
2 projects in coastal ecosystems;

3 (8) successful fish and wildlife conservation in-
4 creasingly relies on interdependent partnerships in
5 which priority setting, planning, and conservation
6 delivery are collaborative endeavors;

7 (9) since 1985, the Service has administered
8 the Coastal Program through which the Service
9 works with willing partners to assess, protect, plan,
10 restore, and enhance coastal ecosystems, including
11 coastal wetlands and watersheds, uplands, and ripar-
12 ian and in-stream habitats, that provide significant
13 benefits to Federal trust species;

14 (10) through the Coastal Program, the Service
15 provides strategic conservation planning and design
16 at the regional and landscape scales, and integrates
17 the resources of the Service to address priorities
18 identified by partners; and

19 (11) the Coastal Program of the Service com-
20 plements and enhances the National Coastal Wet-
21 lands Conservation Grant Program under section
22 305 of the Coastal Wetlands Planning, Protection
23 and Restoration Act (16 U.S.C. 3954), which pro-
24 vides matching grants to coastal States to support

1 long-term conservation of coastal wetlands and asso-
2 ciated habitats.

3 (b) PURPOSE.—The purpose of this Act is to legisla-
4 tively authorize the Coastal Program of the Service in ef-
5 fect as of the date of enactment of this Act to conduct
6 collaborative landscape-level planning and on-the-ground
7 coastal habitat protection, restoration, and enhancement
8 projects in priority coastal areas to conserve and recover
9 Federal trust species.

10 **SEC. 3. DEFINITIONS.**

11 In this Act:

12 (1) COASTAL AREA.—The term “coastal area”
13 means a marine or freshwater area within or adja-
14 cent to a coastal State, including—

15 (A) a coastal wetland or watershed;

16 (B) coastal water;

17 (C) a coastal bay;

18 (D) a coastline; and

19 (E) an estuary and associated upland.

20 (2) COASTAL ECOSYSTEM.—The term “coastal
21 ecosystem” means an ecological community that pro-
22 vides fish and wildlife habitat in coastal areas.

23 (3) COASTAL HABITAT ASSESSMENT.—The
24 term “coastal habitat assessment” means the proc-
25 ess of evaluating the physical, chemical, and biologi-

1 eal function of a coastal site to determine the value
2 of the site to fish and wildlife.

3 (4) COASTAL HABITAT ENHANCEMENT.—The
4 term “coastal habitat enhancement” means the ma-
5 nipulation of the physical, chemical, or biological
6 characteristics of a coastal ecosystem to increase or
7 decrease specific biological functions that make the
8 ecosystem valuable to fish and wildlife.

9 (5) COASTAL HABITAT PLANNING.—The term
10 “coastal habitat planning” means the process of de-
11 veloping a comprehensive plan that—

12 (A) characterizes a coastal ecosystem;

13 (B) sets protection, restoration, or en-
14 hancement goals, and identifies the priorities of
15 those goals;

16 (C) describes conservation strategies and
17 methodologies;

18 (D) establishes a timetable for implementa-
19 tion of the plan; and

20 (E) identifies roles of participants and
21 stakeholders.

22 (6) COASTAL HABITAT PROTECTION.—

23 (A) IN GENERAL.—The term “coastal
24 habitat protection” means a long-term action to

1 safeguard habitats of importance to fish and
2 wildlife species in a coastal ecosystem.

3 (B) INCLUSION.—The term “coastal habi-
4 tat protection” includes activities to support es-
5 tablishment of conservation easements or fee-
6 title acquisition by Federal and non-Federal
7 partners.

8 (7) COASTAL HABITAT RESTORATION.—The
9 term “coastal habitat restoration” means the manip-
10 ulation of the physical, chemical, or biological char-
11 acteristics of a coastal ecosystem with the goal of re-
12 turning, to the maximum extent practicable, the full
13 natural biological functions to lost or degraded na-
14 tive habitat.

15 (8) COASTAL STATE.—The term “coastal
16 State” means—

17 (A) a State in, or bordering on, the Atlan-
18 tic, Pacific, or Arctic Ocean, the Gulf of Mex-
19 ico, the Long Island Sound, or 1 or more of the
20 Great Lakes;

21 (B) the Commonwealth of Puerto Rico;

22 (C) Guam;

23 (D) American Samoa;

24 (E) the Commonwealth of the Northern
25 Mariana Islands;

- 1 (F) the Federated States of Micronesia;
2 (G) the Republic of the Marshall Islands;
3 (H) the Republic of Palau; and
4 (I) the United States Virgin Islands.
- 5 (9) FEDERAL TRUST SPECIES.—The term
6 “Federal trust species” means—
7 (A) a species listed as a threatened species
8 or an endangered species under the Endangered
9 Species Act of 1973 (16 U.S.C. 1531 et seq.);
10 (B) a species of migratory bird;
11 (C) a species of interjurisdictional fish;
12 (D) any species of marine mammal, as
13 identified by the Secretary; and
14 (E) any other species of concern, as deter-
15 mined by the Secretary.
- 16 (10) FINANCIAL ASSISTANCE.—The term “fi-
17 nancial assistance” means Federal funding support
18 provided to eligible recipients through a grant or co-
19 operative agreement.
- 20 (11) SECRETARY.—The term “Secretary”
21 means the Secretary of the Interior.
- 22 (12) SERVICE.—The term “Service” means the
23 United States Fish and Wildlife Service.
- 24 (13) TECHNICAL ASSISTANCE.—The term
25 “technical assistance” means a collaboration, facili-

1 tation, or consulting action relating to a habitat pro-
2 tection, planning, restoration, or enhancement
3 project or initiative in which the Service contributes
4 scientific knowledge, skills, and expertise to a project
5 or program.

6 **SEC. 4. COASTAL PROGRAM.**

7 The Secretary shall carry out the Coastal Program
8 within the Service—

9 (1) to identify the most important natural re-
10 source problems and solutions in priority coastal eco-
11 systems in partnership with—

12 (A) Federal, State, local, and Tribal gov-
13 ernments;

14 (B) nongovernmental institutions;

15 (C) nonprofit organizations;

16 (D) private individuals; and

17 (E) corporations;

18 (2) to provide technical assistance and financial
19 assistance through partnerships with Federal, State,
20 local, and Tribal governments, nongovernmental in-
21 stitutions, nonprofit organizations, private individ-
22 uals, and corporations to conduct voluntary coastal
23 habitat assessment, protection, planning, restoration,
24 and enhancement projects on public land or private
25 land;

1 (3) to ensure the health and resilience of coast-
2 al ecosystems through adaptive management proce-
3 dures based on the best available science;

4 (4) to build the capacity of Federal, State,
5 local, and Tribal governments, nongovernmental in-
6 stitutions, nonprofit organizations, private individ-
7 uals, and corporations to carry out environmental
8 conservation and stewardship measures;

9 (5) to assist in the development and implemen-
10 tation of monitoring protocols to ensure the success
11 of coastal ecosystem restoration and enhancement
12 measures; and

13 (6) to collaborate and share information with
14 partners and the public relating to best management
15 practices for the conservation, restoration, and en-
16 hancement of coastal ecosystems.

17 **SEC. 5. REPORTS.**

18 (a) IN GENERAL.—Not later than 1 year after the
19 date of enactment of this Act, and annually thereafter,
20 the Secretary, acting through the Director of the Service,
21 shall submit to the Committees on Appropriations and En-
22 vironment and Public Works of the Senate and the Com-
23 mittees on Appropriations and Natural Resources of the
24 House of Representatives, and make available to the pub-

1 lie on the website of the Service, a report on the Coastal
2 Program carried out under this Act.

3 (b) REQUIREMENTS.—Each report submitted under
4 subsection (a) shall assess on regional and nationwide
5 bases—

6 (1) Coastal Program work on coastal eco-
7 systems;

8 (2) progress made by the Coastal Program to-
9 ward identifying the most important natural re-
10 source problems and solutions in priority ecosystems;
11 and

12 (3) prospects for, and success of, protecting, re-
13 storing, and enhancing coastal ecosystems.

14 (c) INCLUSIONS.—Each report submitted under sub-
15 section (a) shall include—

16 (1) quantitative information on coastal areas
17 protected, restored, or enhanced;

18 (2) funds appropriated to the Coastal Program
19 that have been expended or leveraged;

20 (3) a description of adaptive management prac-
21 tices implemented; and

22 (4) recommendations, if any, for additional re-
23 search, management, or legislation needed to fully—

24 (A) address problems and implement solu-
25 tions in coastal ecosystems; and

1 (B) achieve the objectives of this Act.

2 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

3 There are authorized to be appropriated to carry out
4 this Act—

5 (1) \$20,000,000 for fiscal year 2022;

6 (2) \$21,250,000 for fiscal year 2023;

7 (3) \$22,500,000 for fiscal year 2024;

8 (4) \$23,750,000 for fiscal year 2025; and

9 (5) \$25,000,000 for fiscal year 2026.

○

117TH CONGRESS
2D SESSION

S. _____

To amend the Coastal Barrier Resources Act to make improvements to that Act, and for other purposes.

IN THE SENATE OF THE UNITED STATES

_____ introduced the following bill; which was read twice
and referred to the Committee on _____

A BILL

To amend the Coastal Barrier Resources Act to make improvements to that Act, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

4 (a) **SHORT TITLE.**—This Act may be cited as the
5 “Strengthening Coastal Communities Act of 2022”.

6 (b) **TABLE OF CONTENTS.**—The table of contents for
7 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—COASTAL BARRIER RESOURCES ACT AMENDMENTS

Sec. 101. Undeveloped coastal barrier.

Sec. 102. Coastal hazard pilot project.

2

Sec. 103. Require disclosure to prospective buyers that property is in the Coastal Barrier Resources System.

Sec. 104. Improve Federal agency compliance with Coastal Barrier Resources Act.

Sec. 105. Excess Federal property.

Sec. 106. Emergency exceptions to limitations on expenditures.

Sec. 107. Authorization of appropriations.

TITLE II—CHANGES TO JOHN H. CHAFEE COASTAL BARRIER
RESOURCES SYSTEM MAPS

Sec. 201. Changes to John H. Chafee Coastal Barrier Resources System maps.

1 **TITLE I—COASTAL BARRIER**
2 **RESOURCES ACT AMENDMENTS**

3 **SEC. 101. UNDEVELOPED COASTAL BARRIER.**

4 Section 3(1) of the Coastal Barrier Resources Act
5 (16 U.S.C. 3502(1)) is amended—

6 (1) in the matter preceding subparagraph (A),
7 by striking “means” and inserting “includes”;

8 (2) in subparagraph (A)—

9 (A) in the matter preceding clause (i), by
10 inserting “bluff,” after “barrier spit,”; and

11 (B) in clause (ii), by inserting “and related
12 lands” after “aquatic habitats”;

13 (3) in subparagraph (B), by inserting “, includ-
14 ing areas that are and will be vulnerable to coastal
15 hazards, such as flooding, storm surge, wind, ero-
16 sion, and sea level rise” after “nearshore waters”;
17 and

18 (4) in the matter following subparagraph (B),
19 by striking “, and man’s activities on such features
20 and within such habitats,”.

1 **SEC. 102. COASTAL HAZARD PILOT PROJECT.**

2 (a) IN GENERAL.—

3 (1) PROJECT.—The Secretary of the Interior,
4 in consultation with the Assistant Secretary of the
5 Army for Civil Works, the Administrator of the Na-
6 tional Oceanic and Atmospheric Administration, and
7 the Administrator of the Federal Emergency Man-
8 agement Agency, shall carry out a coastal hazard
9 pilot project to propose definitions and criteria and
10 produce draft digital maps of areas, including coast-
11 al mainland areas, which could be added to the John
12 H. Chafee Coastal Barrier Resources System that
13 are and will be vulnerable to coastal hazards, such
14 as flooding, storm surge, wind, erosion and sea level
15 rise, and areas not in such System to which barriers
16 and associated habitats are likely to migrate or be
17 lost as sea level rises.

18 (2) NUMBER OF UNITS.—The project carried
19 out under this section shall consist of the creation
20 of maps for at least 10 percent of the System and
21 may also identify additional new System units.

22 (b) REPORT.—

23 (1) IN GENERAL.—Not later than two years
24 after the date of enactment of this Act, the Sec-
25 retary shall submit to the Committee on Environ-
26 ment and Public Works of the Senate and the Com-

4

1 mittee on Natural Resources of the House of Rep-
2 resentatives a report describing the results of the
3 pilot project and the proposed definitions and cri-
4 teria and costs of completing coastal hazard maps
5 for the entire System.

6 (2) CONTENTS.—The report shall include a de-
7 scription of—

8 (A) the final recommended digital maps
9 created under the coastal hazard pilot project;

10 (B) recommendations for the adoption of
11 the digital maps created under this section by
12 Congress;

13 (C) a summary of the comments received
14 from the Governors of the States, other govern-
15 ment officials, and the public regarding the
16 definitions, criteria, and maps;

17 (D) a description of the criteria used for
18 the project and any related recommendations;
19 and

20 (E) the amount of funding necessary for
21 completing coastal hazard maps for the entire
22 System.

23 (c) CONSULTATION.—The Secretary shall prepare the
24 report required under subsection (b)—

5

1 (1) in consultation with the Governors of the
 2 States in which any newly identified areas are lo-
 3 cated; and

4 (2) after—

5 (A) providing an opportunity for the sub-
 6 mission of public comments; and

7 (B) considering any public comments sub-
 8 mitted under subparagraph (A).

9 **SEC. 103. REQUIRE DISCLOSURE TO PROSPECTIVE BUYERS**
 10 **THAT PROPERTY IS IN THE COASTAL BAR-**
 11 **RIER RESOURCES SYSTEM.**

12 Section 5 of the Coastal Barrier Resources Act (16
 13 U.S.C. 3504) is amended by adding at the end the fol-
 14 lowing:

15 “(c) DISCLOSURE OF LIMITATIONS.—

16 “(1) REQUIREMENT.—No person shall sell any
 17 interest in real property located in the System unless
 18 the person has disclosed to the buyer that the prop-
 19 erty is in the System and subject to the limitations
 20 under this section.

21 “(2) NOTIFICATION TO THE SECRETARY.—Not
 22 later than 60 days after the date of sale of any in-
 23 terest in real property located in the System, the
 24 seller shall notify the Secretary using the online sys-
 25 tem required by paragraph (3) of such sale and shall

1 certify to the Secretary that such seller complied
2 with the requirements of paragraph (1).

3 “(3) ONLINE REPORTING SYSTEM.—Not later
4 than one year after the date of enactment of the
5 Strengthening Coastal Communities Act of 2022,
6 the Secretary shall establish and maintain an online
7 reporting system to facilitate notifications to the
8 Secretary required by paragraph (2).”.

9 **SEC. 104. IMPROVE FEDERAL AGENCY COMPLIANCE WITH**
10 **COASTAL BARRIER RESOURCES ACT.**

11 (a) IN GENERAL.—Section 7 of the Coastal Barrier
12 Resources Act (16 U.S.C. 3506) is amended—

13 (1) in subsection (a)—

14 (A) by striking “the Coastal Barrier Im-
15 provement Act of 1990” and inserting the
16 “Strengthening Coastal Communities Act of
17 2022”; and

18 (B) by striking “promulgate regulations”
19 and inserting “revise or promulgate regulations
20 and guidance, as necessary,”; and

21 (2) by amending subsection (b) to read as fol-
22 lows:

23 “(b) REPORTS AND CERTIFICATION.—

24 “(1) REPORTS.—The head of each Federal
25 agency affected by this Act shall annually report to

1 the Secretary that such agency is in compliance with
2 this Act.

3 “(2) CERTIFICATION.—The Secretary shall an-
4 nually certify whether each such agency is in compli-
5 ance with this Act.

6 “(3) FAILURE TO COMPLY.—If the Secretary
7 certifies that an agency is not in compliance with
8 this Act, the head of the agency shall report to Con-
9 gress not later than 90 days after the date of such
10 certification regarding how the agency will achieve
11 compliance.”.

12 (b) TECHNICAL CORRECTION.—Section 3(2) of the
13 Coastal Barrier Resources Act (16 U.S.C. 3502(2)) is
14 amended by striking “Committee on Resources” and in-
15 serting “Committee on Natural Resources”.

16 **SEC. 105. EXCESS FEDERAL PROPERTY.**

17 Section 4(c) of the Coastal Barrier Resources Act (16
18 U.S.C. 3503(c)) is amended by adding at the end of sub-
19 section (c) the following new paragraph:

20 “(3) Notwithstanding the provisions of section
21 3(1) and subsection (g), the term ‘undeveloped
22 coastal barrier’ means any coastal barrier regardless
23 of the degree of development.”.

1 **SEC. 106. EMERGENCY EXCEPTIONS TO LIMITATIONS ON**
2 **EXPENDITURES.**

3 Section 6(a) of the Coastal Barrier Resources Act (16
4 U.S.C. 3505(a)) is amended—

5 (1) in paragraph (6), by striking subparagraph
6 (E) and redesignating subparagraphs (F) and (G) as
7 subparagraphs (E) and (F), respectively; and

8 (2) by adding at the end the following new
9 paragraph:

10 “(7) Emergency actions necessary to the saving
11 of lives and the protection of property and the public
12 health and safety, if such actions are performed pur-
13 suant to sections 402, 403, and 502 of the Robert
14 T. Stafford Disaster Relief and Emergency Assist-
15 ance Act (42 U.S.C. 5107a, 5170b, 5192) and are
16 limited to actions that are necessary to alleviate the
17 immediate emergency.”.

18 **SEC. 107. AUTHORIZATION OF APPROPRIATIONS.**

19 Section 10 of the Coastal Barrier Resources Act (16
20 U.S.C. 3510) is amended by striking “\$2,000,000” and
21 all that follows through the end of the sentence and insert-
22 ing “\$5,000,000 for each of fiscal years 2023 through
23 2027.”.

1 **TITLE II—CHANGES TO JOHN H.**
2 **CHAFEE COASTAL BARRIER**
3 **RESOURCES SYSTEM MAPS**

4 **SEC. 201. CHANGES TO JOHN H. CHAFEE COASTAL BARRIER**
5 **RESOURCES SYSTEM MAPS.**

6 (a) IN GENERAL.—

7 (1) REPLACEMENT MAPS.—Each map included
8 in the set of maps referred to in section 4(a) of the
9 Coastal Barrier Resources Act (16 U.S.C. 3503(a))
10 that relates to a unit of the John H. Chafee Coastal
11 Barrier Resources System established by that sec-
12 tion referred to in subsection (b) is replaced in such
13 set with the map described in that subsection with
14 respect to that unit and any other new or reclassi-
15 fied units depicted on that map panel.

16 (2) NEW MAPS.—The set of maps referred to in
17 section 4(a) of the Coastal Barrier Resources Act
18 (16 U.S.C. 3503(a)) is amended to include the new
19 maps described in subsection (c).

20 (b) REPLACEMENT MAPS DESCRIBED.—The replace-
21 ment maps referred to in subsection (a)(1) are the fol-
22 lowing:

23 (1) The map entitled “Salisbury Beach Unit
24 MA-01P Plum Island Unit MA-02P (1 of 2)” and
25 dated December 18, 2020.

1 (2) The map entitled "Clark Pond Unit C00
2 Plum Island Unit MA-02P (2 of 2) Castle Neck
3 Unit MA-03 Wingaersheek Unit C01 (1 of 2)" and
4 dated December 18, 2020.

5 (3) The map entitled "Wingaersheek Unit C01
6 (2 of 2) Good Harbor Beach/Milk Island Unit C01A
7 Cape Hedge Beach Unit MA-48 Brace Cove Unit
8 C01B" and dated December 18, 2020.

9 (4) The map entitled "West Beach Unit MA-04
10 Phillips Beach Unit MA-06" and dated December
11 18, 2020.

12 (5) The map entitled "Snake Island Unit MA-
13 08P, Squantum Unit MA-09P Merrymount Park
14 Unit MA-10P West Head Beach Unit C01C/C01CP
15 Peddocks/Rainsford Island Unit MA-11/MA-11P"
16 and dated December 18, 2020.

17 (6) The map entitled "Cohasset Harbor Unit
18 MA-12 North Scituate Unit C02P Rivermoor Unit
19 C03" and dated December 18, 2020.

20 (7) The map entitled "Rexhame Unit C03A
21 Duxbury Beach Unit MA-13/MA-13P (1 of 2)" and
22 dated December 18, 2020.

23 (8) The map entitled "Duxbury Beach Unit
24 MA-13/MA-13P (2 of 2) Plymouth Bay Unit C04"
25 and dated December 18, 2020.

1 (9) The map entitled "Center Hill Complex C06
2 Scusset Beach Unit MA-38P Town Neck Unit MA-
3 14P" and dated December 18, 2020.

4 (10) The map entitled "Scorton Unit C08
5 Sandy Neck Unit C09/C09P (1 of 2)" and dated
6 December 18, 2020.

7 (11) The map entitled "Sandy Neck Unit C09/
8 C09P (2 of 2) Chapin Beach Unit MA-15P" and
9 dated December 18, 2020.

10 (12) The map entitled "Nobscusset Unit MA-16
11 Freemans Pond Unit C10" and dated December 18,
12 2020.

13 (13) The map entitled "Provincetown Unit MA-
14 19P (1 of 2)" and dated December 18, 2020.

15 (14) The map entitled "Provincetown Unit MA-
16 19P (2 of 2) Pamet Harbor Unit MA-18AP Ballston
17 Beach Unit MA-18P" and dated December 18,
18 2020.

19 (15) The map entitled "Griffin/Great Islands
20 Complex MA-17P Lieutenant Island Unit MA-
21 17AP" and dated December 18, 2020.

22 (16) The map entitled "Namskaket Spits Unit
23 C11/C11P Boat Meadow Unit C11A/C11AP Nauset
24 Beach/Monomoy Unit MA-20P (1 of 3)" and dated
25 December 18, 2020.

12

1 (17) The map entitled "Nauset Beach/
2 Monomoy Unit MA-20P (2 of 3) Harding Beach
3 Unit MA-40P Chatham Roads Unit C12/C12P Red
4 River Beach Unit MA-41P" and dated December
5 18, 2020.

6 (18) The map entitled "Nauset Beach/
7 Monomoy Unit MA-20P (3 of 3)" and dated Decem-
8 ber 18, 2020.

9 (19) The map entitled "Davis Beach Unit MA-
10 23P Lewis Bay Unit C13/C13P" and dated Decem-
11 ber 18, 2020.

12 (20) The map entitled "Squaw Island Unit C14
13 Centerville Unit C15/C15P Dead Neck Unit C16 (1
14 of 2)" and dated December 18, 2020.

15 (21) The map entitled "Dead Neck Unit C16
16 (2 of 2) Popponeset Spit Unit C17 Waquoit Bay
17 Unit C18 Falmouth Ponds Unit C18A" and dated
18 December 18, 2020.

19 (22) The map entitled "Quisett Beach/Fal-
20 mouth Beach Unit MA-42P Black Beach Unit C19,
21 Little Sippewisset Marsh Unit C19P Chapoquoit
22 Beach Unit MA-43/MA-43P Herring Brook Unit
23 MA-30" and dated December 18, 2020.

24 (23) The map entitled "Squeteague Harbor
25 Unit MA-31 Bassetts Island Unit MA-32 Phinneys

1 Harbor Unit MA-33 Buzzards Bay Complex C19A
2 (1 of 3)” and dated December 18, 2020.

3 (24) The map entitled “Buzzards Bay Complex
4 C19AP (2 of 3) Planting Island Unit MA-35” and
5 dated December 18, 2020.

6 (25) The map entitled “Buzzards Bay Complex
7 C19A (3 of 3) West Sconticut Neck Unit C31A/
8 C31AP Little Bay Unit MA-47P Harbor View Unit
9 C31B” and dated December 18, 2020.

10 (26) The map entitled “Round Hill Unit MA-
11 36, Mishaum Point Unit C32 Demarest Lloyd Park
12 Unit MA-37P Little Beach Unit C33 (1 of 2) Round
13 Hill Point Unit MA-45P, Teal Pond Unit MA-46”
14 and dated December 18, 2020.

15 (27) The map entitled “Little Beach Unit C33
16 (2 of 2) Horseneck Beach Unit C34/C34P Rich-
17 mond/Cockeast Ponds Unit C35” and dated Decem-
18 ber 18, 2020.

19 (28) The map entitled “Coatue Unit C20/C20P
20 (1 of 2) Sesachacha Pond Unit C21” and dated De-
21 cember 18, 2020.

22 (29) The map entitled “Coatue Unit C20/C20P
23 (2 of 2) Cisco Beach Unit C22P Esther Island Com-
24 plex C23/23P (1 of 2) Tuckernuck Island Unit C24
25 (1 of 2)” and dated December 18, 2020.

1 (30) The map entitled "Esther Island Complex
2 C23 (2 of 2) Tuckernuck Island Unit C24 (2 of 2)
3 Muskeget Island Unit C25" and dated December 18,
4 2020.

5 (31) The map entitled "Harthaven Unit MA-
6 26, Edgartown Beach Unit MA-27P Trapps Pond
7 Unit MA-27, Ecl Pond Beach Unit C26 Cape Poge
8 Unit C27, Norton Point Unit MA-28P South Beach
9 Unit C28 (1 of 2)" and dated December 18, 2020.

10 (32) The map entitled "South Beach Unit C28
11 (2 of 2)" and dated December 18, 2020.

12 (33) The map entitled "Squibnoeket Complex
13 C29/C29P Nomans Land Unit MA-29P" and dated
14 December 18, 2020.

15 (34) The map entitled "James Pond Unit C29A
16 Mink Meadows Unit C29B Naushon Island Complex
17 MA-24 (1 of 2)" and dated December 18, 2020.

18 (35) The map entitled "Naushon Island Com-
19 plex MA-24 (2 of 2) Elizabeth Island Unit C31 (1
20 of 2)" and dated December 18, 2020.

21 (36) The map entitled "Elizabeth Island Unit
22 C31 (2 of 2) Penikese Island Unit MA-25P" and
23 dated December 18, 2020.

24 (37) The map entitled "Cedar Cove Unit
25 C34A" and dated December 18, 2020.

1 (38) The map entitled "Little Compton Ponds
2 Unit D01 Tunipus Pond Unit D01P Brown Point
3 Unit RI-01" and dated December 18, 2020.

4 (39) The map entitled "Fogland Marsh Unit
5 D02/D02P, Sapowet Point Unit RI-02/RI-02P
6 McCorrie Point Unit RI-02A Sandy Point Unit RI-
7 03P Prudence Island Complex D02B/D02BP (1 of
8 3)" and dated December 18, 2020.

9 (40) The map entitled "Prudence Island Com-
10 plex D02B/D02BP (2 of 3)" and dated December
11 18, 2020.

12 (41) The map entitled "Prudence Island Com-
13 plex D02B/D02BP (3 of 3)" and dated December
14 18, 2020.

15 (42) The map entitled "West Narragansett Bay
16 Complex D02C" and dated December 18, 2020.

17 (43) The map entitled "Fox Hill Marsh Unit
18 RI-08/RI-08P Bonnet Shores Beach Unit RI-09
19 Narragansett Beach Unit RI-10/RI-10P" and dated
20 December 18, 2020.

21 (44) The map entitled "Seaweed Beach Unit
22 RI-11P East Matunuck Beach Unit RI-12P Point
23 Judith Unit RI-14P, Card Ponds Unit D03/D03P
24 Green Hill Beach Unit D04 (1 of 2)" and dated De-
25 cember 18, 2020.

1 (45) The map entitled "Green Hill Beach Unit
2 D04 (2 of 2) East Beach Unit D05P
3 Quonochontaug Beach Unit D06/D06P" and dated
4 December 18, 2020.

5 (46) The map entitled "Misquamicut Beach
6 Unit RI-13P Maschaug Ponds Unit D07 Napatree
7 Unit D08/D08P" and dated December 18, 2020.

8 (47) The map entitled "Block Island Unit D09/
9 D09P" and dated December 18, 2020.

10 (48) The map entitled "Wilecox Beach Unit E01
11 Ram Island Unit E01A Mason Island Unit CT-01"
12 and dated December 18, 2020.

13 (49) The map entitled "Bluff Point Unit CT-
14 02 Goshen Cove Unit E02" and dated December 18,
15 2020.

16 (50) The map entitled "Jordan Cove Unit E03,
17 Niantic Bay Unit E03A Old Black Point Unit CT-
18 03, Hatchett Point Unit CT-04 Little Pond Unit
19 CT-05, Mile Creek Unit CT-06" and dated Decem-
20 ber 18, 2020.

21 (51) The map entitled "Griswold Point Unit
22 CT-07 Lynde Point Unit E03B Cold Spring Brook
23 Unit CT-08" and dated December 18, 2020.

24 (52) The map entitled "Menunketesuck Island
25 Unit E04 Hammonasset Point Unit E05 Toms

1 Creek Unit CT-10 Seaview Beach Unit CT-11” and
2 dated December 18, 2020.

3 (53) The map entitled “Lindsey Cove Unit CT-
4 12 Kelsey Island Unit CT-13 Nathan Hale Park
5 Unit CT-14P Morse Park Unit CT-15P” and dated
6 December 18, 2020.

7 (54) The map entitled “Milford Point Unit E07
8 Long Beach Unit CT-18P Fayerweather Island Unit
9 E08AP” and dated December 18, 2020.

10 (55) The map entitled “Norwalk Islands Unit
11 E09/E09P” and dated December 18, 2020.

12 (56) The map entitled “Jamaica Bay Unit NY-
13 60P (1 of 2)” and dated December 18, 2020.

14 (57) The map entitled “Jamaica Bay Unit NY-
15 60P (2 of 2)” and dated December 18, 2020.

16 (58) The map entitled “Sands Point Unit NY-
17 03 Prospect Point Unit NY-04P Dosoris Pond Unit
18 NY-05P” and dated December 18, 2020.

19 (59) The map entitled “The Creek Beach Unit
20 NY-06/NY-06P Centre Island Beach Unit NY-07P,
21 Centre Island Unit NY-88 Lloyd Beach Unit NY-
22 09P Lloyd Point Unit NY-10/NY-10P” and dated
23 December 18, 2020.

24 (60) The map entitled “Lloyd Harbor Unit NY-
25 11/NY-11P, Eatons Neck Unit F02 Hobart Beach

18

1 Unit NY-13, Deck Island Harbor Unit NY-89
 2 Centerpoint Harbor Unit NY-12, Crab Meadow Unit
 3 NY-14” and dated December 18, 2020.

4 (61) The map entitled “Sunken Meadow Unit
 5 NY-15/NY-15P Stony Brook Harbor Unit NY-16 (1
 6 of 2)” and dated December 18, 2020.

7 (62) The map entitled “Stony Brook Harbor
 8 Unit NY-16/NY-16P (2 of 2) Crane Neck Unit
 9 F04P Old Field Beach Unit F05/F05P Cedar Beach
 10 Unit NY-17/NY-17P” and dated December 18,
 11 2020.

12 (63) The map entitled “Wading River Unit NY-
 13 18 Baiting Hollow Unit NY-19P” and dated Decem-
 14 ber 18, 2020.

15 (64) The map entitled “Luce Landing Unit
 16 NY-20P, Mattituck Inlet Unit NY-21P East Creek
 17 Unit NY-34P, Indian Island Unit NY-35P Flanders
 18 Bay Unit NY-36/NY-36P, Red Creek Pond Unit
 19 NY-37 Iron Point Unit NY-97P” and dated Decem-
 20 ber 18, 2020.

21 (65) The map entitled “Goldsmith Inlet Unit
 22 NY-22P, Pipes Cove Unit NY-26 (1 of 2) Southold
 23 Bay Unit NY-28, Cedar Beach Point Unit NY-29P
 24 (1 of 2) Hog Neck Bay Unit NY-30 Peconic Dunes
 25 Unit NY-90P” and dated December 18, 2020.

1 (66) The map entitled "Little Creek Unit NY-
2 31/NY-31P, Cutchogue Harbor Unit NY-31A Downs
3 Creek Unit NY-32, Robins Island Unit NY-33
4 Squire Pond Unit NY-38, Cow Neck Unit NY-39
5 North Sea Harbor Unit NY-40/NY-40P, Cold
6 Spring Pond Unit NY-92" and dated December 18,
7 2020.

8 (67) The map entitled "Truman Beach Unit
9 NY-23/NY-23P Orient Beach Unit NY-25P Hay
10 Beach Point Unit NY-47" and dated December 18,
11 2020.

12 (68) The map entitled "F06, NY-26 (2 of 2),
13 NY-27, NY-29P (2 of 2), NY-41P NY-42, NY-43/
14 NY-43P, NY-44, NY-45 NY-46, NY-48, NY-49,
15 NY-50 NY-51P, NY-93, NY-94, NY-95P" and
16 dated December 18, 2020.

17 (69) The map entitled "Gardiners Island Bar-
18 riers Unit F09 (1 of 2) Plum Island Unit NY-24"
19 and dated December 18, 2020.

20 (70) The map entitled "Sammys Beach Unit
21 F08A, Accabonac Harbor Unit F08B Gardiners Is-
22 land Barriers Unit F09 (2 of 2) Napeague Unit
23 F10P (1 of 2), Hog Creek Unit NY-52 Amagansett
24 Unit NY-56/NY-56P, Bell Park Unit NY-96P" and
25 dated December 18, 2020.

1 (71) The map entitled "Fisher Island Barriers
2 Unit F01" and dated December 18, 2020.

3 (72) The map entitled "Big Reed Pond Unit
4 NY-53P Oyster Pond Unit NY-54P Montauk Point
5 Unit NY-55P" and dated December 18, 2020.

6 (73) The map entitled "Napeague Unit F10/
7 F10P (2 of 2)" and dated December 18, 2020.

8 (74) The map entitled "Meccox Unit F11
9 Georgica/Wainseott Ponds Unit NY-57 Sagaponack
10 Pond Unit NY-58/NY-58P" and dated December
11 18, 2020.

12 (75) The map entitled "Southampton Beach
13 Unit F12 Tiana Beach Unit F13/F13P" and dated
14 December 18, 2020.

15 (76) The map entitled "Fire Island Unit NY-
16 59P (1 of 6)" and dated December 18, 2020.

17 (77) The map entitled "Fire Island Unit NY-
18 59P (2 of 6)" and dated December 18, 2020.

19 (78) The map entitled "Fire Island Unit NY-
20 59P (3 of 6)" and dated December 18, 2020.

21 (79) The map entitled "Fire Island Unit NY-
22 59/NY-59P (4 of 6)" and dated December 18, 2020.

23 (80) The map entitled "Fire Island Unit NY-
24 59/NY-59P (5 of 6)" and dated December 18, 2020.

1 (81) The map entitled "Fire Island Unit NY-
2 59/NY-59P (6 of 6)" and dated December 18, 2020.

3 (82) The map entitled "Sandy Hook Unit NJ-
4 01P Monmouth Cove Unit NJ-17P" and dated De-
5 cember 18, 2020.

6 (83) The map entitled "Navesink/Shrewsbury
7 Complex NJ-04A/NJ-04AP" and dated December
8 18, 2020.

9 (84) The map entitled "Metedeconk Neck Unit
10 NJ-04B/NJ-04BP" and dated December 18, 2020.

11 (85) The map entitled "Island Beach Unit NJ-
12 05P (1 of 2)" and dated December 18, 2020.

13 (86) The map entitled "Island Beach Unit NJ-
14 05P (2 of 2)" and dated December 18, 2020.

15 (87) The map entitled "Cedar Bonnet Island
16 Unit NJ-06/NJ-06P" and dated December 18,
17 2020.

18 (88) The map entitled "Brigantine Unit NJ-
19 07P (1 of 4)" and dated December 18, 2020.

20 (89) The map entitled "Brigantine Unit NJ-
21 07P (2 of 4)" and dated December 18, 2020.

22 (90) The map entitled "Brigantine Unit NJ-
23 07P (3 of 4)" and dated December 18, 2020.

24 (91) The map entitled "Brigantine Unit NJ-
25 07P (4 of 4)" and dated December 18, 2020.

1 (92) The map entitled "Corson's Inlet Unit NJ-
2 08P" and dated December 18, 2020.

3 (93) The map entitled "Stone Harbor Unit NJ-
4 09/NJ-09P" and dated December 18, 2020.

5 (94) The map entitled "Two Mile Beach Unit
6 NJ-20P Cape May Unit NJ-10P Higbee Beach Unit
7 NJ-11P" and dated December 18, 2020.

8 (95) The map entitled "Sunray Beach Unit NJ-
9 21P Del Haven Unit NJ-12/NJ-12P Kimbles Beach
10 Unit NJ-13 Moores Beach Unit NJ-14/NJ-14P (1
11 of 3)" and dated December 18, 2020.

12 (96) The map entitled "Moores Beach Unit NJ-
13 14/NJ-14P (2 of 3)" and dated December 18, 2020.

14 (97) The map entitled "Moores Beach Unit NJ-
15 14/NJ-14P (3 of 3)" and dated December 18, 2020.

16 (98) The map entitled "Little Creek Unit DE-
17 01/DE-01P (1 of 2) Broadkill Beach Unit H00/
18 H00P (1 of 4)" and dated December 18, 2020.

19 (99) The map entitled "Broadkill Beach Unit
20 H00/H00P (2 of 4)" and dated December 18, 2020.

21 (100) The map entitled "Broadkill Beach Unit
22 H00/H00P (3 of 4)" and dated December 18, 2020.

23 (101) The map entitled "Broadkill Beach Unit
24 H00/H00P (4 of 4) Beach Plum Island Unit DE-
25 02P" and dated December 18, 2020.

23

1 (102) The map entitled "Cape Henlopen Unit
2 DE-03P Silver Lake Unit DE-06" and dated De-
3 cember 18, 2020.

4 (103) The map entitled "Fenwick Island Unit
5 DE-08P" and dated December 18, 2020.

6 (104) The map entitled "Bombay Hook Unit
7 DE-11P (2 of 2) Little Creek Unit DE-01P (2 of
8 2)" and dated December 18, 2020.

9 (105) The map entitled "Assateague Island
10 Unit MD-01P (1 of 3)" and dated December 18,
11 2020.

12 (106) The map entitled "Assateague Island
13 Unit MD-01P (2 of 3)" and dated December 18,
14 2020.

15 (107) The map entitled "Assateague Island
16 Unit MD-01P (3 of 3)" and dated December 18,
17 2020.

18 (108) The map entitled "Fair Island Unit MD-
19 02 Sound Shore Unit MD-03/MD-03P" and dated
20 December 18, 2020.

21 (109) The map entitled "Cedar/Janes Islands
22 Unit MD-04P (1 of 2) Joes Cove Unit MD-06 (1 of
23 2)" and dated December 18, 2020.

24 (110) The map entitled "Cedar/Janes Islands
25 Unit MD-04P (2 of 2) Joes Cove Unit MD-06 (2 of

1 2) Scott Point Unit MD-07P, Hazard Island Unit
2 MD-08P St. Pierre Point Unit MD-09P” and dated
3 December 18, 2020.

4 (111) The map entitled “Little Deal Island
5 Unit MD-11 Deal Island Unit MD-12 Franks Island
6 Unit MD-14/MD-14P Long Point Unit MD-15” and
7 dated December 18, 2020.

8 (112) The map entitled “Stump Point Unit
9 MD-16” and dated December 18, 2020.

10 (113) The map entitled “Martin Unit MD-17P”
11 and dated December 18, 2020.

12 (114) The map entitled “Marsh Island Unit
13 MD-18P Holland Island Unit MD-19” and dated
14 December 18, 2020.

15 (115) The map entitled “Jenny Island Unit
16 MD-20 Lower Hooper Island Unit MD-58” and
17 dated December 18, 2020.

18 (116) The map entitled “Barren Island Unit
19 MD-21P Meekins Neck Unit MD-59” and dated De-
20 cember 18, 2020.

21 (117) The map entitled “Hooper Point Unit
22 MD-22 Covey Creek Unit MD-24” and dated De-
23 cember 18, 2020.

1 (118) The map entitled "Boone Creek Unit
2 MD-26 Benoni Point Unit MD-27 Chloro Point
3 Unit MD-60" and dated December 18, 2020.

4 (119) The map entitled "Lowes Point Unit
5 MD-28 Rich Neck Unit MD-29 Kent Point Unit
6 MD-30" and dated December 18, 2020.

7 (120) The map entitled "Stevensville Unit MD-
8 32 Wesley Church Unit MD-33 Eastern Neck Island
9 Unit MD-34P Wilson Point Unit MD-35" and dated
10 December 18, 2020.

11 (121) The map entitled "Tanner Creek Unit
12 MD-47 Point Lookout Unit MD-48P Potter Creek
13 Unit MD-63 Bisco Creek Unit MD-49" and dated
14 December 18, 2020.

15 (122) The map entitled "Biscoe Pond Unit
16 MD-61P, Carroll Pond Unit MD-62 St. Clarence
17 Creek Unit MD-44 Deep Point Unit MD-45, Point
18 Look-In Unit MD-46 Chicken Cock Creek Unit MD-
19 50" and dated December 18, 2020.

20 (123) The map entitled "Drum Point Unit MD-
21 39 Lewis Creek Unit MD-40 Green Holly Pond Unit
22 MD-41" and dated December 18, 2020.

23 (124) The map entitled "Flag Ponds Unit MD-
24 37P Cove Point Marsh Unit MD-38/MD-38P" and
25 dated December 18, 2020.

1 (125) The map entitled "Cherryfield Unit MD-
2 64, Piney Point Creek Unit MD-51 McKay Cove
3 Unit MD-52, Blake Creek Unit MD-53 Belvedere
4 Creek Unit MD-54" and dated December 18, 2020.

5 (126) The map entitled "St. Clements Island
6 Unit MD-55P St. Catherine Island Unit MD-56"
7 and dated December 18, 2020.

8 (127) The map entitled "Assateague Island
9 Unit VA-01P (1 of 4)" and dated December 18,
10 2020.

11 (128) The map entitled "Assateague Island
12 Unit VA-01P (2 of 4)" and dated December 18,
13 2020.

14 (129) The map entitled "Assateague Island
15 Unit VA-01P (3 of 4)" and dated December 18,
16 2020.

17 (130) The map entitled "Assateague Island
18 Unit VA-01P (4 of 4) Assawoman Island Unit VA-
19 02P (1 of 3)" and dated December 18, 2020.

20 (131) The map entitled "Assawoman Island
21 Unit VA-02P (2 of 3)" and dated December 18,
22 2020.

23 (132) The map entitled "Assawoman Island
24 Unit VA-02P (3 of 3) Metompkin Island Unit VA-

1 03P Cedar Island Unit K03 (1 of 3)” and dated De-
2 cember 18, 2020.

3 (133) The map entitled “Cedar Island Unit
4 K03 (2 of 3) Parramore/Hog/Cobb Islands Unit VA-
5 04P (1 of 5)” and dated December 18, 2020.

6 (134) The map entitled “Cedar Island Unit
7 K03 (3 of 3) Parramore/Hog/Cobb Islands Unit VA-
8 04P (2 of 5)” and dated December 18, 2020.

9 (135) The map entitled “Parramore/Hog/Cobb
10 Islands Unit VA-04P (3 of 5)” and dated December
11 18, 2020.

12 (136) The map entitled “Parramore/Hog/Cobb
13 Islands Unit VA-04P (4 of 5)” and dated December
14 18, 2020.

15 (137) The map entitled “Parramore/Hog/Cobb
16 Islands Unit VA-04P (5 of 5) Little Cobb Island
17 Unit K04 Wreck Island Unit VA-05P (1 of 4)” and
18 dated December 18, 2020.

19 (138) The map entitled “Wreck Island Unit
20 VA-05P (2 of 4)” and dated December 18, 2020.

21 (139) The map entitled “Wreck Island Unit
22 VA-05P (3 of 4) Smith Island Unit VA-06P (1 of
23 3)” and dated December 18, 2020.

24 (140) The map entitled “Wreck Island Unit
25 VA-05P (4 of 4) Smith Island Unit VA-06P (2 of

1 3) Fishermans Island Unit K05/K05P (1 of 2)” and
2 dated December 18, 2020.

3 (141) The map entitled “Smith Island Unit
4 VA-06P (3 of 3) Fishermans Island Unit K05/K05P
5 (2 of 2)” and dated December 18, 2020.

6 (142) The map entitled “Elliotts Creek Unit
7 VA-09 Old Plantation Creek Unit VA-10 Wescoat
8 Point Unit VA-11” and dated December 18, 2020.

9 (143) The map entitled “Great Neck Unit VA-
10 12 Westerhouse Creek Unit VA-13 Shooting Point
11 Unit VA-14” and dated December 18, 2020.

12 (144) The map entitled “Scarborough Neck
13 Unit VA-16/VA-16P Craddock Neck Unit VA-17/
14 VA-17P (1 of 2)” and dated December 18, 2020.

15 (145) The map entitled “Craddock Neck Unit
16 VA-17 (2 of 2) Hacks Neck Unit VA-18 Parkers/
17 Finneys Islands Unit VA-19 Parkers Marsh Unit
18 VA-20/VA-20P (1 of 3)” and dated December 18,
19 2020.

20 (146) The map entitled “Parkers Marsh Unit
21 VA-20 (2 of 3) Beach Island Unit VA-21 (1 of 2)
22 Russell Island Unit VA-22/VA-22P Simpson Bend
23 Unit VA-23” and dated December 18, 2020.

24 (147) The map entitled “Parkers Marsh Unit
25 VA-20/VA-20P (3 of 3) Beach Island Unit VA-21 (2

1 of 2) Watts Island Unit VA-27” and dated Decem-
2 ber 18, 2020.

3 (148) The map entitled “Drum Bay Unit VA-
4 24” and dated December 18, 2020.

5 (149) The map entitled “Fox Islands Unit VA-
6 25” and dated December 18, 2020.

7 (150) The map entitled “Cheeseman Island
8 Unit VA-26” and dated December 18, 2020.

9 (151) The map entitled “Tangier Island Unit
10 VA-28/VA-28P” and dated December 18, 2020.

11 (152) The map entitled “Elbow Point Unit VA-
12 29 White Point Unit VA-30 Cabin Point Unit VA-
13 31 Glebe Point Unit VA-32” and dated December
14 18, 2020.

15 (153) The map entitled “Sandy Point Unit VA-
16 33 Judith Sound Unit VA-34” and dated December
17 18, 2020.

18 (154) The map entitled “Cod Creek Unit VA-
19 35 Presley Creek Unit VA-36 Cordreys Beach Unit
20 VA-37 Marshalls Beach Unit VA-38” and dated De-
21 cember 18, 2020.

22 (155) The map entitled “Ginny Beach Unit
23 VA-39P, Gaskin Pond Unit VA-40 Owens Pond
24 Unit VA-41, Chesapeake Beach Unit VA-42 Fleet

1 Point Unit VA-43 Bussel Point Unit VA-44” and
2 dated December 18, 2020.

3 (156) The map entitled “Harveys Creek Unit
4 VA-45, Dameron Marsh Unit VA-63P Ingram Cove
5 Unit VA-46 Bluff Point Neck Unit VA-47/VA-47P
6 Barnes Creek Unit VA-48” and dated December 18,
7 2020.

8 (157) The map entitled “Little Bay Unit VA-
9 64, North Point Unit VA-49 White Marsh Unit VA-
10 65P, Windmill Point Unit VA-50 Deep Hole Point
11 Unit VA-51, Sturgeon Creek Unit VA-52 Jackson
12 Creek Unit VA-53” and dated December 18, 2020.

13 (158) The map entitled “Rigby Island/Bethal
14 Beach Unit VA-55/VA-55P (1 of 2)” and dated De-
15 cember 18, 2020.

16 (159) The map entitled “Rigby Island/Bethal
17 Beach Unit VA-55 (2 of 2) New Point Comfort Unit
18 VA-56” and dated December 18, 2020.

19 (160) The map entitled “Lone Point Unit VA-
20 66 Oldhouse Creek Unit VA-67 Ware Neck Unit
21 VA-57 Severn River Unit VA-58 (1 of 2)” and dated
22 December 18, 2020.

23 (161) The map entitled “Severn River Unit VA-
24 58 (2 of 2) Bay Tree Beach Unit VA-68/VA-68P

1 Plum Tree Island Unit VA-59P (1 of 2)” and dated
2 December 18, 2020.

3 (162) The map entitled “Plum Tree Island
4 Unit VA-59P (2 of 2) Long Creek Unit VA-60/VA-
5 60P” and dated December 18, 2020.

6 (163) The map entitled “Cape Henry Unit VA-
7 61P” and dated December 18, 2020.

8 (164) The map entitled “Back Bay Unit VA-
9 62P (1 of 2)” and dated December 18, 2020.

10 (165) The map entitled “Back Bay Unit VA-
11 62P (2 of 2)” and dated December 18, 2020.

12 (166) The map entitled “Hammocks Beach
13 Unit NC-06/NC-06P (1 of 2)” and dated March 18,
14 2016.

15 (167) The map entitled “Hammocks Beach
16 Unit NC-06/NC-06P (2 of 2) Onslow Beach Com-
17 plex L05 (1 of 2)” and dated March 18, 2016.

18 (168) The map entitled “Onslow Beach Com-
19 plex L05 (2 of 2) Topsail Unit L06 (1 of 2)” and
20 dated April 30, 2021.

21 (169) The map entitled “Morris Island Unit
22 M06/M06P” and dated April 29, 2021.

23 (170) The map entitled “Hunting Island Unit
24 SC-09P (1 of 2) Harbor Island Unit M11 (1 of 2)

32

1 St. Phillips Island Unit M12/M12P (1 of 3)” and
2 dated April 29, 2021.

3 (171) The map entitled “Hunting Island Unit
4 SC-09P (2 of 2) Harbor Island Unit M11 (2 of 2)
5 St. Phillips Island Unit M12/M12P (2 of 3)” and
6 dated April 29, 2021.

7 (172) The map entitled “St. Phillips Island
8 Unit M12 (3 of 3)” and dated April 29, 2021.

9 (173) The map entitled “Grayton Beach Unit
10 FL-95P Draper Lake Unit FL-96” and dated April
11 30, 2021.

12 (174) The map entitled “Moreno Point Unit
13 P32/P32P” and dated April 29, 2021.

14 (175) The map entitled “MOBILE POINT
15 UNIT Q01P PELICAN ISLAND UNIT Q01A/
16 Q01AP ALLIGATOR LAKE UNIT AL-05/AL-
17 05P” and dated April 10, 2015.

18 (176) The map entitled “Isle au Pitre Unit LA-
19 01” and dated March 18, 2016.

20 (177) The map entitled “Half Moon Island
21 Unit LA-02” and dated March 18, 2016.

22 (178) The map entitled “Timbalier Bay Unit
23 S04 Timbalier Islands Unit S05 (1 of 3)” and dated
24 March 18, 2016.

1 (179) The map entitled “Timbalier Islands
2 Unit S05 (2 of 3)” and dated March 18, 2016.

3 (180) The map entitled “Timbalier Islands
4 Unit S05 (3 of 3)” and dated March 18, 2016.

5 (181) The map entitled “Isles Dernieres Unit
6 S06 (1 of 3)” and dated March 18, 2016.

7 (182) The map entitled “Isles Dernieres Unit
8 S06 (2 of 3)” and dated March 18, 2016.

9 (183) The map entitled “Isles Dernieres Unit
10 S06 (3 of 3)” and dated March 18, 2016.

11 (184) The map entitled “Point au Fer Unit
12 S07 (1 of 4)” and dated March 18, 2016.

13 (185) The map entitled “Point au Fer Unit
14 S07 (2 of 4)” and dated March 18, 2016.

15 (186) The map entitled “Point au Fer Unit
16 S07 (3 of 4)” and dated March 18, 2016.

17 (187) The map entitled “Point au Fer Unit
18 S07 (4 of 4)” and dated March 18, 2016.

19 (c) NEW MAPS DESCRIBED.—The new maps referred
20 to in subsection (a)(2) are the following:

21 (1) The map entitled “Odiorne Point Unit NH-
22 01P” and dated December 18, 2020.

23 (2) The map entitled “Guilford Harbor Unit
24 CT-19P” and dated December 18, 2020.

1 (3) The map entitled "Silver Sands Unit CT-
2 21P" and dated December 18, 2020.

3 (4) The map entitled "Calf Islands Unit CT-
4 20P" and dated December 18, 2020.

5 (5) The map entitled "Malibu Beach Unit NJ-
6 19P" and dated December 18, 2020.

7 (6) The map entitled "Egg Island Unit NJ-22P
8 (1 of 2)" and dated December 18, 2020.

9 (7) The map entitled "Egg Island Unit NJ-22P
10 (2 of 2) Dix Unit NJ-23P (1 of 3)" and dated De-
11 cember 18, 2020.

12 (8) The map entitled "Dix Unit NJ-23P (2 of
13 3)" and dated December 18, 2020.

14 (9) The map entitled "Dix Unit NJ-23P (3 of
15 3) Greenwich Unit NJ-24P" and dated December
16 18, 2020.

17 (10) The map entitled "Woodland Beach Unit
18 DE-09P Fraland Beach Unit DE-10 Bombay Hook
19 Unit DE-11P (1 of 2)" and dated December 18,
20 2020.

21 (11) The map entitled "Swan Point Unit MD-
22 65 Lower Cedar Point Unit MD-66" and dated De-
23 cember 18, 2020.

24 (d) AVAILABILITY.—The Secretary of the Interior
25 shall keep the maps described in subsections (b) and (c)

KAT22339 PSV

S.L.C.

1 on file and available for inspection in accordance with sec-
2 tion 4(b) of the Coastal Barrier Resources Act (16 U.S.C.
3 3503(b)).

117TH CONGRESS
1ST SESSION

S. 3069

To reauthorize the Great Lakes Fish and Wildlife Restoration Act of 1990,
and for other purposes.

IN THE SENATE OF THE UNITED STATES

OCTOBER 26, 2021

Ms. KLOBUCHAR (for herself, Mr. PORTMAN, Ms. STABENOW, and Mr. YOUNG) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To reauthorize the Great Lakes Fish and Wildlife
Restoration Act of 1990, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Great Lakes Fish and
5 Wildlife Restoration Reauthorization Act of 2021”.

6 **SEC. 2. REAUTHORIZATION OF THE GREAT LAKES FISH**
7 **AND WILDLIFE RESTORATION ACT OF 1990.**

8 (a) REPORTS.—Section 1008 of the Great Lakes
9 Fish and Wildlife Restoration Act of 1990 (16 U.S.C.
10 941f) is amended—

1 (1) in subsection (a), in the matter preceding
2 paragraph (1)—

3 (A) by inserting “and not later than De-
4 cember 31, 2027,” after “2021,”;

5 (B) by striking “Committee on Resources”
6 and inserting “Committee on Natural Re-
7 sources”; and

8 (C) by inserting “, with respect to the pe-
9 riod covered by the report” after “describes”;
10 and

11 (2) in subsection (b), in the matter preceding
12 paragraph (1), by striking “2016 through 2020”
13 and inserting “2022 through 2027”.

14 (b) REAUTHORIZATION.—Section 1009(a) of the
15 Great Lakes Fish and Wildlife Restoration Act of 1990
16 (16 U.S.C. 941g(a)) is amended, in the matter preceding
17 paragraph (1), by striking “2016 through 2021” and in-
18 serting “2022 through 2027”.

○

117TH CONGRESS
2D SESSION

S. 3767

To amend the Water Infrastructure Improvements for the Nation Act to reauthorize Delaware River Basin conservation programs, and for other purposes.

IN THE SENATE OF THE UNITED STATES

MARCH 7, 2022

Mr. CARPER (for himself, Mr. CASEY, Mr. COONS, Mr. BOOKER, Mr. MENENDEZ, and Mr. SCHUMER) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

A BILL

To amend the Water Infrastructure Improvements for the Nation Act to reauthorize Delaware River Basin conservation programs, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Delaware River Basin
5 Conservation Reauthorization Act of 2022”.

1 **SEC. 2. DELAWARE RIVER BASIN CONSERVATION REAU-**
2 **THORIZATION.**

3 (a) **COST SHARING.**—Section 3504(c)(1) of the
4 Water Infrastructure Improvements for the Nation Act
5 (Public Law 114–322; 130 Stat. 1775) is amended—

6 (1) by striking “The Federal share” and insert-
7 ing the following:

8 “(A) **IN GENERAL.**—Except as provided in
9 subparagraph (B), the Federal share”; and

10 (2) by adding at the end the following:

11 “(B) **SMALL, RURAL, AND DISADVANTAGED**
12 **COMMUNITIES.**—

13 “(i) **IN GENERAL.**—Subject to clause
14 (ii), the Federal share of the cost of a
15 project funded under the grant program
16 that serves a small, rural, or disadvantaged
17 community shall be 90 percent of the total
18 cost of the project, as determined by the
19 Secretary.

20 “(ii) **WAIVER.**—The Secretary may in-
21 crease the Federal share under clause (i)
22 to 100 percent of the total cost of the
23 project if the Secretary determines that the
24 grant recipient is unable to pay, or would
25 experience significant financial hardship if
26 required to pay, the non-Federal share.”.

1 (b) REPEAL OF PROHIBITION ON USE OF FUNDS
2 FOR FEDERAL ACQUISITION OF INTERESTS IN LAND.—

3 Section 3506 of the Water Infrastructure Improvements
4 for the Nation Act (Public Law 114–322; 130 Stat. 1775)
5 is repealed.

6 (c) SUNSET.—Section 3507 of the Water Infrastruc-
7 ture Improvements for the Nation Act (Public Law 114–
8 322; 130 Stat. 1775) is amended by striking “2023” and
9 inserting “2030”.

○

○