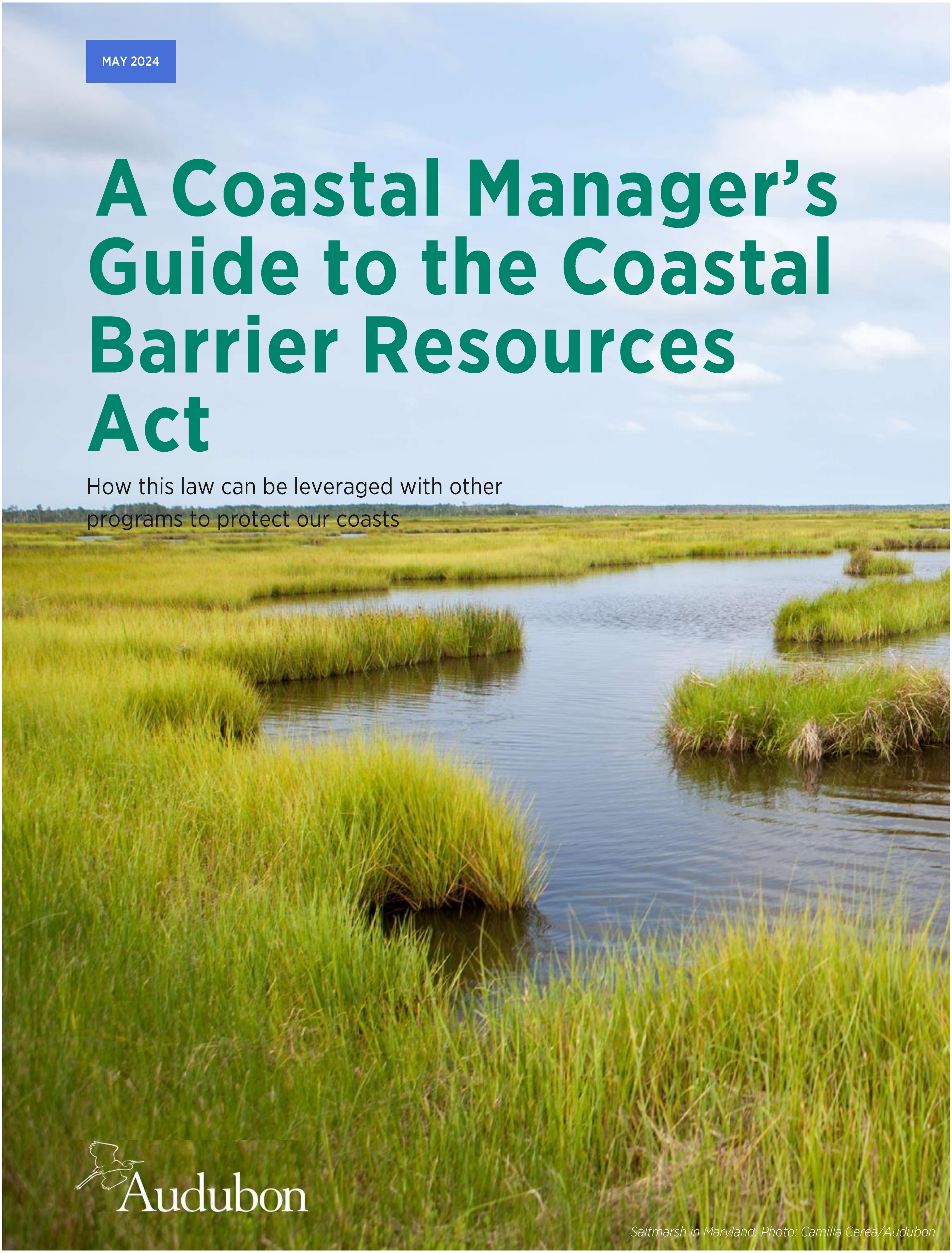
MAY 2024

A Coastal Manager's Guide to the Coastal Barrier Resources Act

How this law can be leveraged with other programs to protect our coasts



Audubon

Saltmarsh in Maryland. Photo: Camilla Cerea/Audubon

Table of Contents

Suggested citation: National Audubon Society. (April 2024). *A Coastal Manager's Guide to the Coastal Barrier Resources Act*. audubon.org/cbraguide

Executive Summary and Fast Facts

The Coastal Barrier Resources Act (CBRA) protects 3.5 million acres of pristine, undeveloped beaches, islands, inlets, and wetlands along the Atlantic Ocean, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico. (U.S. Fish and Wildlife Service (U.S. FWS), 2024). Acreage protected by CBRA is shown on maps that compose the Coastal Barrier Resources System (CBRS). Nearly every coastal state in the United States has mapped areas in the CBRS. (U.S. FWS, 2023).

The CBRA does not prohibit development; it withdraws the federal financial safety net that supports it. By preventing federal spending in sensitive coastal areas, the CBRA saves taxpayers billions of dollars (Coburn and Whitehead, 2019), provides wildlife with healthy habitat, buffers nearby communities against storms and floods, and protects coastal resources that support crucial economies.

Because of its successful, non-regulatory approach, the CBRA has a long track record of bipartisan support, demonstrated by both Democrat and Republican Administrations and Congressional leaders acting to strengthen and expand it. Diverse organizations that include taxpayer advocates, state officials, insurance industry representatives, conservative think tanks, environmental organizations, and sportsmen's groups, have long supported the CBRA.

The CBRA can also help federal, state, and local officials reduce flood risks to communities while protecting important coastal habitat that is crucial for birds and other wildlife. The CBRA can be an additional tool to limit flood-prone development as part of a state's coastal management program through the Coastal Zone Management Act (CZMA). CBRA areas can also be leveraged by community floodplain managers to increase open space and reduce the cost of flood insurance policies through the National Flood Insurance Program (NFIP). Additionally, CBRA areas can be prime candidates for acquisition.

CBRA provides habitat.

- *Preserves Wetland and Estuarine Habitat*. The CBRA keeps millions of acres of critical estuarine and wetland habitat free from harmful development, conserving these landscapes for the myriad of species that rely on them. For example, estuaries are called the "nurseries of the sea," providing vital habitat for spawning species. (U.S. Environmental Protection Agency (U.S. EPA), 2024).
- *Shelters and feeds birds*. About one-half of North American bird species nest or feed in wetlands, with two of North America's migratory bird flyways passing over the Pacific and Atlantic coasts, where coastal wetlands provide habitat to waterfowl and shorebirds. (U.S. EPA, 2001). It is estimated that birdwatching in the United States has an economic benefit of $41 billion. (Withrow, 2019).

CBRA saves billions of federal tax dollars.

- *Reduces National Flood Insurance Program claims.* A 2023 study found that areas

along the Gulf of Mexico and Atlantic included in the Coastal Barrier Resources System (CBRS) saved $112 million per year in reduced National Flood Insurance Program claims, a 7% savings in annual NFIP claims. (Druckenmiller, et al, 2023).
- *Generates multi-billion-dollar savings overall*. Most federal expenditures are prohibited in areas included in the CBRS. As a result, a 2019 economic study found that CBRA has saved the federal taxpayer roughly $9.5 billion and is projected to save $11-$108 billion over the next 50 years in areas included in the CBRS. (Coburn and Whitehead, 2019).

CBRA supports important economies.

- *Increases property values*. The 2023 study found that CBRA designation increases property values in adjacent areas, thereby increasing the overall property tax base. (Druckenmiller, et al, 2023).
- *Supports a healthy fishing industry.* Fish and shellfish depend on healthy wetlands and estuaries, but according to the National Oceanic and Atmospheric Administration (NOAA), coastal wetland degradation and loss has reduced the size and diversity of fish populations, affecting the sustainability of commercial and recreational fisheries. In 2019, these fisheries supported 1.8 million jobs and contributed $255 billion to the economy in sales. (NOAA, 2022).

CBRA protects communities.

- *Reduces flood damage*. Wetlands act as natural sponges, absorbing and temporarily storing floodwaters. By holding back and slowing some of the floodwaters, wetlands can reduce the severity of flooding and erosion, protecting people and property from devastating flood damages. An acre of wetlands can store 1.5 million gallons of floodwater. (NOAA, 2020) This protection saves vulnerable coastal communities $23 billion each year. (Costanza, et al, 2008).
- *Shields communities from storm and hurricane impacts.* A study funded by the insurance giant Lloyds of London found that coastal wetlands prevented more than $625 million in property damages during the 2012 Hurricane Sandy. (Narayan, et al, 2017).

CBRA is a bipartisan, multi-interest success story.

- *Supported by Republicans and Democrats.* Signed into law by President Ronald Reagan in 1982, CBRA was expanded under President George Bush in 1990, strengthened by President Bill Clinton in 2000, and further enlarged by President Donald Trump in 2018. Bills supporting and expanding CBRA have been enacted by Congress under both Democrat and Republican leadership.
- *Championed by a multi-interest coalition of groups.* Taxpayer advocacy groups, conservative think tanks, environmental organizations, state officials, sportsmen, insurance industry representatives, and conservation groups around the country support CBRA.

Ecological Values and the CBRA

The CBRA protects ecologically valuable places. Habitats such as barrier islands contain a variety of habitat zones, all of which are valuable to wildlife. (Maygarden, n.d.). Different habitats protected by CBRA include dunes, swales, maritime forests, marshes and tidal flats. Monarch butterflies feed on the flowering plants of the barrier islands before and after crossing the Gulf of Mexico in the fall and spring. Millions of fish, shellfish, birds, mammals, and other wildlife depend on barriers and their associated wetlands for vital feeding, spawning, nesting, nursery, and resting habitat.

About one-half of North American bird species nest or feed in wetlands, with two of North America's migratory bird flyways passing over the Pacific and Atlantic coasts, where coastal wetlands provide habitat to waterfowl and shorebirds. (U.S. EPA, 2001). It is estimated that birdwatching in the United States has an economic benefit of $41 billion. (Withrow, 2019). Nearly half of federally threatened and endangered species need wetlands for their survival. The CBRS protects hundreds of thousands of acres of wetlands and estuaries along the Gulf of Mexico, Atlantic Ocean, Great Lakes, Puerto Rico, and U.S. Virgin Islands.

Beach and dune sands provide habitat that supports unique and diverse micro-, meso-, and macrofaunal communities including significant habitat and nesting sites for pinnipeds, sea turtles, shorebirds, and songbirds. (Hein, 2023).

Coastal barriers protect wetlands and submersed aquatic vegetation beds that serve as nursery habitat for larvae and juveniles of economically important species, such as bait and commercial fishes. (Hein, 2023). Barrier islands have a huge impact on the fishing industry along the coasts of the Gulf of Mexico and Atlantic Ocean, and these industries, in turn, have a major impact on the economies of southern, mid-Atlantic and New England states. Barrier islands form natural barriers that allow for the formation of lagoons. In turn, lagoons, with their low energy environments, allow for the formation of estuaries, where freshwater and saltwater meet. This meeting place is nutrient rich and helps in the natural recycling process of nutrients into coastal waters, and provides essential habitat for fisheries. (SEPM STRATA, 2024).

Economic Benefits of the Coastal Barrier Resources Act

The Coastal Barrier Resources Act saves federal tax dollars, boosts property values, supports commercial and recreational fishing industries, and reduces costly flood damages.

The Coastal Barrier Resources Act:

- **Saves billions of federal tax dollars.** Most federal expenditures are prohibited in areas included in the CBRA. As a result, a 2019 economic study found that CBRA has saved the federal taxpayer roughly $9.5 billion and is projected to save $11-$108 billion over the next 50 years in areas included in CBRA. This analysis focused on just four federal programs, which did not include the National Flood Insurance Program, so actual savings from the CBRA could be much higher (the four federal programs included avoided costs from FEMA post-disaster expenditures, and EPA, DOT, and HUD grants). (Coburn and Whitehead, 2019).

- **Reduces National Flood Insurance Program claims***.* A 2023 study found that areas along the Gulf of Mexico and Atlantic included in the CBRS saved $112 million per year in reduced National Flood Insurance Program claims, a 7% savings in annual NFIP claims. (Druckenmiller, et al, 2023).

- **Increases property values.** A 2023 study concluded that CBRA designation increases property values in adjacent areas, thereby increasing the overall property tax base, while providing additional significant and economically meaningful positive effects in neighboring communities. (Druckenmiller, et al, 2023).

- ***Supports a healthy fishing industry.*** Fish and shellfish depend on healthy wetlands and estuaries, but according to the National Oceanic and Atmospheric Administration (NOAA), coastal wetland degradation and loss has reduced the size and diversity of fish populations, affecting the sustainability of commercial and recreational fisheries. In 2021, these fisheries supported 1.36 million jobs and contributed $323 billion total to the economy through sales, income, and value-added impacts. (NOAA, 2024). The CBRS protects wetlands and estuarine areas along the Gulf of Mexico, Atlantic Ocean, Great Lakes, Puerto Rico, and U.S. Virgin Islands.

- **Reduces flood damage.** Wetlands act as natural sponges, absorbing and temporarily storing floodwaters. By holding back and slowing some of the floodwaters, wetlands can reduce the severity of flooding and erosion, protecting people, property, infrastructure, and agriculture from devastating flood damages. An acre of wetlands can store 1.5 million gallons of floodwater. (NOAA, 2020). This protection saves vulnerable coastal communities $23 billion each year. (Costanza, et. al., 2008).

Public Safety Benefits of the Coastal Barrier Resources Act

From 1983 through 2022, the United States was struck by 70 hurricanes that caused thousands of deaths and billions of dollars' worth of damage. (NOAA, 2023). Nearly 40% of the U.S. population now lives in coastal counties, placing more people at risk from deadly storms. (NOAA, 2024). By removing taxpayer-funded subsidies for development in hazardous coastal areas, the CBRA promotes public safety.

The Coastal Barrier Resources Act:

Reduces development. Development rates are reduced by more than 75% in CBRA areas as compared to non-CBRA areas. (Branham, 2022). Less development means less people who are exposed to deadly acts of nature, such as hurricanes, storms, and floods. According to a 2023 study, most of the coastal development along the Gulf of Mexico and Atlantic Ocean would not have occurred without federal incentives. (Druckenmiller, et al, 2023).

Provides benefits that assist with military readiness. Hurricane Michael hit Tyndall Air Force Base in Florida in 2018. The base is protected by a series of undeveloped barrier islands that are included in the CBRS. According to a 2020 report produced jointly by the Department of Defense and other partners, assessments related to the base's recovery highlight the importance of maintaining the islands and associated ecosystem in order to protect the base's built infrastructure, and to create refugia or "stepping stones" for wildlife and vegetation to migrate as sea levels rise. Other resiliency opportunities also exist including improving natural systems and wetlands through hydrologic restoration. The base is now being rebuilt as a "Base of the Future," a collaborative effort between the Department of Defense, private industry, and federal agencies to rebuild in a resilient and sustainable manner. (Stevens, 2020).

Buffers storm impacts on nearby development. Areas within the CBRS provide flood protection benefits to nearby developed areas, according to a 2023 study. The undeveloped lands within the CBRS act as natural barriers to dissipate and absorb waves before they reach nearby developed areas. Areas in the CBRS help reduce federal flood insurance claims in nearby developed areas by 21-27%. (Druckenmiller, et al, 2023).

Reduces flood damage. Wetlands act as natural sponges, absorbing and temporarily storing floodwaters. By holding back and slowing some of the floodwaters, wetlands can reduce the severity of flooding and erosion, protecting people, property, infrastructure, and agriculture from devastating flood damages. An acre of wetlands can store 1.5 million gallons of floodwater. (NOAA, 2020). This protection saves vulnerable coastal communities $23 billion each year. (Costanza, 2008). The Coastal Barrier Resources System includes hundreds of thousands of acres of wetlands, thus storing hundreds of millions of gallons of floodwater, providing critical protection for nearby vulnerable communities.

Shields communities from storm and hurricane impacts. A study funded by the insurance giant Lloyds of London found that coastal wetlands prevented more than $625 million in property damages during the 2012 Hurricane Sandy, reducing property damages throughout the Northeastern United States by 10% on average. (Narayan, et al, 2017).

Piping Plover. Photo: Lorraine Minns/Audubon Photography Awards

The Coastal Barrier Resources Act: A Tool for Enhanced Coastal Management through the Coastal Zone Management Act's Section 309 Program

The Coastal Barrier Resources Act (CBRA) and the Coastal Zone Management Act's (CZMA) Section 309 program share common goals of reducing human exposure to coastal hazards while conserving important habitat. By removing most federal expenditures for development in areas included in the Coastal Barrier Resources System, the CBRA protects 3.5 million acres of pristine, undeveloped beaches, islands, inlets, and wetlands along much of the U.S. coastline. (U.S. Fish and Wildlife Service (U.S. FWS), 2024). The CBRS is composed of maps that portray protected areas, and nearly every coastal state in the United States has mapped areas in the CBRS. (U.S. FWS, 2023).

The CBRA does not prohibit development; it withdraws from the federal financial safety net that supports it. This approach has proven to be remarkably effective in discouraging development, making CBRA an effective method of protecting important coastal habitat while reducing human exposure to deadly storms.

The CBRA can be leveraged to achieve important coastal management advances through the CZMA Section 309 program. (NOAA, 2024). States can receive funding through the Section 309 program to implement their approved strategy(ies). If coastal hazards are identified as a high-priority for the program, states can develop a strategy to enhance their program to address identified high-priority hazard needs. There are two types of Section 309 funding: base funding (allocated by formula to all programs with approved assessments and strategies), and Project of Special Merit funding (additional funding that states can compete for to further an approved Section 309 strategy.)

A Section 309 strategy must lead to a "program change." A program change is defined as:

- A change to coastal zone boundaries that will improve a state's ability to achieve one or more of the enhancement objectives.
- New or revised authorities, including statutes, regulations, enforceable policies, administrative decisions, executive orders, and memoranda of agreement or understanding, that will improve a state's ability to achieve one or more of the enhancement objectives.
- New or revised local coastal programs and implementing ordinances that will improve a state's ability to achieve one or more of the enhancement objectives.
- New or revised coastal land acquisition, management, and restoration programs that improve a state's ability to attain one or more of the enhancement objectives.
- New or revised special area management plans or plans for areas of particular concern (APC), including enforceable policies and other necessary implementing mechanisms or criteria and procedures for designating and managing APCs that will improve a state's ability to achieve one or more of the enhancement objectives.
- New or revised guidelines, procedures, and policy documents that are formally

adopted by a state and provide specific interpretations of enforceable coastal policies to applicants, local governments, and other agencies that will result in meaningful improvements in coastal resource management and that will improve a state's ability to attain one or more of the enhancement objectives.

As part of a larger Section 309 strategy, states could:

- Develop regulations that withdraw state expenditures for development in CBRA areas in state coastal zones, amplifying the benefits that already occur from having federal expenditures prohibited in CBRA areas.
    - Case Study: Model Statute - Maine. Maine enacted a statute prohibiting state expenditures in CBRS areas in order to maximize the financial and environmental benefits of the CBRA. Language such as the Maine statute could be developed as part of a Section 309 strategy.

- Analyze the location of CBRS areas in state coastal zones and determine whether purchasing these areas or acquiring conservation easements on them could reduce development and improve resiliency. Since land in the CBRA System cannot qualify for federal development funds, it can be easier to purchase undeveloped CBRS areas or apply conservation easements on them.
    - Case Study: States leveraging CBRA to acquire coastal property for public space

- Develop incentives for property owners in CBRA areas to adopt additional measures on their land that would contribute to the community's flood resiliency and the health of habitat, including living shorelines and other habitat-friendly resiliency measures. (NOAA, n.d.).

Another suitable Section 309 strategy would be for state Coastal Management Programs to work with local governments to pass ordinances that mirror CBRA restrictions. As part of Section 309, states have helped communities participate in the FEMA Community Rating System (CRS) (see description of the CRS program below.) State Coastal Management Programs have created technical assistance programs and/or helped local governments revise ordinances to meet CRS requirements, which helps conserve and protect coastal resources.

Wetlands in Louisiana. Photo: USFWS

The Coastal Barrier Resources Act: A Tool to Maximize Community Rating System Benefits through the National Flood Insurance Program

The Coastal Barrier Resources Act (CBRA) shares complementary goals with the Federal Emergency Management Agency's (FEMA) Community Rating System (CRS.) The CRS is a federal policy designed to incentivize community-level investment in climate adaptation. The goal of the CRS is to reduce flood damages and lower premiums by encouraging proactive behavior at the community level. When communities take steps to reduce their flood vulnerability beyond the minimum required by the NFIP, they receive points through the CRS that are grouped into classes, with each class earning a 5% additional discount on NFIP policy costs. More than 1,500 communities across the United States participate in the CRS. (Federal Emergency Management Agency (FEMA), n.d.)

The CBRA shares a similar objective to the CRS. The CBRA discourages development in flood- and storm-prone coastal areas, thereby reducing the number of people and their property that are at risk. CBRA and the CRS align because the largest number of CRS communities are along the Mid-Atlantic and Southeast coasts, which is where a significant proportion of CBRA- protected areas are located, creating an opportunity for CBRA and the CRS to interact in a mutually beneficial manner. (Gourevitch, 2022). In addition, federal flood insurance policy rates are increasing, which causes increased community interest in the CRS as a way to improve flood and climate resilience and in return, earn discounts on flood insurance policy costs. This increased interest can help bring attention to CBRA's effectiveness at supporting resilience and limiting development.

Some of the CRS's goals can also be supported through state CZMA Section 309 strategies, as discussed above. For example, as part of a state's CZMA Section 309 strategy, a state's Coastal Management Program could work with local governments to pass ordinances that mirror CBRA restrictions. State Coastal Management Programs have created technical assistance programs and/or helped local governments revise ordinances to meet CRS requirements, which helps conserve and protect coastal resources.

The CBRA complements CRS's objectives and could be leveraged by local governments to achieve credit in several CRS Activities, including four in particular:

- Activity 420: Preserving open space and protecting natural floodplain functions.
- Activity 430: Regulating development in the floodplain.
- Activity 510: Developing a floodplain management plan.
- Activity 520: Acquiring and relocating buildings. (FEMA, 2017).

Activity 420: Preserving open space and protecting natural floodplain functions.

Towns with CBRA System areas have an opportunity to leverage the benefits from those units within the FEMA CRS program. For example, under Activity 420, towns could purchase CBRA System lands from willing buyers and maintain them as open space.

Typically, purchasing coastal property is very expensive, but owners of property in the CBRA System may be more willing to sell because the property isn't eligible for federal development subsidies that underwrite development, and without the federal subsidies, developing a property becomes significantly more expensive. (See case study on acquiring CBRA properties.

Along with acquiring CBRA properties, local governments could pass regulations that mirror CBRA restrictions, such as prohibiting local government expenditures in areas included in the CBRA System as a counterpart to the prohibition on federal expenditures in the CBRA System. This would further reduce incentives to develop the property. (See case study on Maine's prohibition on state expenditures in CBRA System areas.)

Local governments could also enact low-density zoning requirements in CBRA areas. The CRS defines "low-density" development as a lot that is at least five acres in size. CBRA also requires that areas within it be at least five acres in size, which would automatically qualify most CBRS units for low-density zoning under the CRS.

As part of a state's CZMA Section 309 strategy, a state's Coastal Management Program could work with local governments to pass ordinances that mirror CBRA restrictions.

Activities 430 and 510: Regulating and planning for development.

CBRA areas are often beaches, dunes, islands, and nearshore areas that are prone to erosion. Activity 430 provides credits for developing coastal erosion management regulations and dune and beach regulations that prohibit construction within mapped areas. Restricting development in CBRA areas could qualify for credit under this activity. A community that receives credit for coastal erosion setback regulations will also likely unlock related credits in mapping and open space.

Activity 510 provides credit for floodplain management plans, habitat species assessment and natural floodplain functions plans that address the natural resources of floodplains and recommend ways to protect them. This can include floodplain areas that protect, conserve and restore habitat, provide open space corridors or connected networks of wetlands, or provide other ecological attributes. Many CBRA areas are wetlands that are important habitat to endangered species, while beaches and dunes in CBRA support a wide variety of birds, sea turtles, and other species. It would be useful to target CBRA areas for protection as part of the floodplain management plan.

Case Study: Prohibition of state expenditures in CBRS areas: Maine

Maine enacted a state law prohibiting most state expenditures in federally-designated Coastal Barrier Resources System (CBRS) areas in Maine. (38 ME Rev Stat §1901-1905 (2022)).

Currently, 5,768 acres along Maine's coastline are included in the federal CBRS. (U.S. FWS, n.d.). Maine's state law withdrawing state financial support for development in CBRS areas is a model of a state leveraging the CBRS to reduce the exposure of people and property to coastal hazards, achieve greater habitat protection, and save state financial resources. Withdrawing state funding for development in CBRS areas mirrors the withdrawal of federal funds in these areas and allows the state to save money. Removing state financial support for development further lessens development pressure on areas that buffer storm impacts for upland communities and provide important habitat. By excluding both state and federal expenditures in these areas, private interests must use their own funding, without subsidies, to develop, which makes it even less likely that these crucial habitats will be developed. Maine's law benefits the state's taxpayers, protects important habitat, and promotes public safety.

Maine's state law is composed of five sections (38 ME Rev Stat §1901-1905 (2022)).

1. *Findings and declaration of policy*

The state legislature declared that Maine's coastal barrier ecosystem;

- Is composed of coastal barriers and adjacent wetlands, marshes, estuaries, inlets and nearshore waters that contain important resources that may be damaged and lost due to development on and adjacent to them.
- Supports important habitat for wildlife and commercially and recreationally important species of fish and shellfish.
- Serves as natural storm protective buffers that are generally unsuitable for development because of their vulnerability to hurricane and other storm damage.

The findings further note that the U.S. Congress recognized the importance of coastal barriers through the establishment of the Coastal Barrier Resources Act (CBRA), which prohibits the expenditure of federal funds in CBRS areas. The Legislature determined that it would be inappropriate to use state funds to encourage or support activities in CBRS areas. (38 ME Rev Stat §1901 (2022)).

2. *Limitations on state expenditures affecting the system*

No state funds or state financial assistance may be expended for development activities within the CBRS including:

- The construction or purchase of any structure, appurtenance, facility or related infrastructure;
- The construction of any road, airport, boat-landing facility or other facility on or bridge or cause way to, any coastal barrier; and,
- The carrying out of any project to prevent the erosion of, or to otherwise stabilize, any inlet, shoreline, or inshore area. (38 ME Rev Stat §1902 (2022)).

3. *Exceptions to state prohibition*

The law provides for exceptions to its prohibition on the expenditure of state funds for:

- Maintenance, replacement, reconstruction or repair, but not the expansion, except where expansion is necessary in order to meet minimum design requirements, of state- owned or state-operated roads, structures, or facilities.

The law further allows the expenditure of state funds for actions or projects provided they are consistent with the purposes of the law:

- Study, management, protection or enhancement of fish and wildlife resources and habitats;
- Recreational uses that do not involve an irretrievable commitment of natural resources;
- Scientific research;
- Nonstructural projects for shoreline stabilization that are designed to mimic, enhance or restore natural stabilization systems.

Upon approval by the governor, state funds may also be expended for assistance for emergency actions essential to the saving of lives, the protection of property and the public health and safety. (38 ME Rev Stat §1903 (2022)).

4. *Maine Coastal Barrier System*

The law lists the areas along the Maine coast that are included in the federal Coastal Barrier Resources System. (38 ME Rev Stat §1904 (2022)).

5. *Maine Coastal Barrier Resources System Maps*

The law states that maps identifying the Maine Coastal Barrier Resources System that are consistent with the federal CBRS are available for public review at a variety of state agencies. (38 ME Rev Stat §1905 (2022)).


Shoreline in Maine. Photo: USFWS

Case Study: Leveraging the CBRA to acquire coastal lands for permanent protection

The CBRA does not prohibit development; it withdraws from the federal financial safety net that supports it. This approach has proven to be remarkably effective in discouraging development, making CBRA an effective method of protecting important coastal habitat while reducing human exposure to deadly storms.

The prohibition on federal expenditures in CBRS areas, such as National Flood Insurance Program policies, Federal Disaster Relief, and Department of Transportation grants, may provide an inducement for property owners to sell coastal property whose development costs cannot be underwritten by the Federal government. Many CBRS properties have been purchased for conservation purposes, including in states experiencing high coastal development pressure.

- **North Carolina:** Acquired oceanfront property.

In 2019, the state of North Carolina purchased 35 acres of undeveloped oceanfront property that a developer had proposed dividing into 23 lots. The $2.5 million purchase allows the undeveloped acreage to be added to the Bird Island Coastal Reserve, which is adjacent to the purchased property. The purchased land is part of the CBRS Unit M01. The addition to Bird Island Reserve will ensure long-term habitat protection for shorebirds, among other wildlife. (Talton, 2019).

- **South Carolina:** Acquired barrier island land.

In June 2023, the state of South Carolina purchased land on an undeveloped barrier island and established it as a protected preserve. The land was part of the CBRS Unit M01, and is located on Waites Island, which is the northernmost barrier island off the South Carolina coast. Approximately 1,000 acres, Waites Island has long been a conservation priority of the state. It is the most significant undeveloped coastal fringe habitat in the 22 miles from Myrtle Beach to the North Carolina, border and is one of the last remaining undeveloped barrier islands of this size in the southeastern United States. The South Carolina Department of Natural Resources acquired a 260 acre tract from a cooperative conservation entity, Open Space Institute Land Trust, in June 2023 to create the Waites Island Heritage Preserve. (South Carolina Conservation Bank, 2024).

- **Alabama:** Acquired dunes, marshes and beaches.

In 2021, the state of Alabama purchased more than 800 acres of coastal habitat to support and protect bird populations. All of the purchased land was in CBRS Unit Q02. The acquired area is on the west end of Dauphin Island, and is a diverse coastal habitat made up of dunes, marshes, and beaches. Sea turtles and several bird species use the habitat for nesting, while neotropical migratory birds use the area as a prime resting spot during migrations. Piping Plovers, protected under the Endangered Species Act, use the area as well. The Alabama Department of Conservation and Natural Resources has partnered with county and town officials to develop a bird conservation and management plan to maximize the habitat benefits provided by the acquired property. (Gulf Spill Restoration, 2021).

Timeline of Bipartisan Support for the CBRA

October 18, 1982. Statement by President Ronald Reagan on Signing the Coastal Barrier Resources Act of 1982:
"I am proud to sign into law today S. 1018, the Coastal Barrier Resources Act. This legislation will enhance both wise natural resource conservation and fiscal responsibility. It will save American taxpayers millions of dollars while, at the same time, taking a major step forward in the conservation of our magnificent coastal resources. S. 1018 is precisely the sort of imaginative environmental legislation this administration encourages-legislation that solves real problems in the stewardship of our natural resources. . . It will not prohibit a property owner from building on his property, and it will not impose federally mandated duties on State or local governments. Instead, it simply adopts the sensible approach that risk associated with new private development in these sensitive areas should be borne by the private sector, not underwritten by the American taxpayer." (Reagan, 1982).

June 29, 1989. HR 2840, the "Coastal Barrier Improvement Act of 1990," introduced by Rep. Gerry Studds (D-MA). The bill had 38 Democrat co-sponsors and 11 Republican co-sponsors. It passed the House on September 28 by voice vote, and passed the Senate on October 26, 1990, with amendment by voice vote. by voice vote, and passed the Senate on October 26, 1990, with amendment by voice vote. (Congress.gov, 1990).

November 16, 1990. H.R. 2840, the "Coastal Barrier Improvement Act of 1990," signed into law by President George Bush. (Congress.gov, 1990).

September 22, 1998. Statement by Senator John H. Chafee (R-RI) before the Environment and Public Works Committee:
"CBRA prohibits Federal flood insurance and other financial assistance for development of areas identified within the System. This prohibition deters development in coastal barriers, which serves three very worthwhile purposes: it promotes public safety by discouraging construction in areas prone to severe weather conditions; it preserves valuable natural resources; and it promotes fiscal responsibility by avoiding Federal subsidies and insurance of inherently risky developments. Let me stress this last point: CBRA gets the Federal government out of the business of subsidizing high-risk development. 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." (Chafee, 1998).

October 20, 1999. S. 1752, the Coastal Barrier Resources Reauthorization Act of 2000, was introduced by Sen. John Chafee (R-RI) with 1 Republican and 2 Democrat original co-sponsors, with an additional Republican and Democrat co-sponsor added in 2000. It passed the Senate on September 27 with amendments by unanimous consent, and passed the House on October 24, 200, by voice vote. on September 27 with amendments by unanimous consent, and passed the House on October 24, 2000, by voice vote. (Congress.gov, 2000).

November 13, 2000. Statement of President William J. Clinton on signing S. 1752, the Coastal Barrier Resources Reauthorization Act of 2000:
"Coastal barriers provide a multitude of services that are foundations of a strong economy and healthy environment. For example, coastal barriers often help provide the conditions necessary to support productive and lucrative fisheries. They also provide essential habitat for threatened and endangered species and protect the mainland from coastal storms, bearing the full force of storm surge and hurricane-level winds and shielding the mainland from the severest storm conditions. By limiting Federal subsidies such as flood insurance from units in the System, CBRA discourages development, keeping lives out of harm's way, protecting fish and wildlife habitat, and reducing wasteful expenditures of taxpayer dollars." (Clinton, 2000).

October 17, 2005. S. 1869, the "Coastal Barrier Resources Reauthorization Act of 2005," introduced by Sen. James Inhofe (R-OK) with 1 Independent and 1 Republican co-sponsor. (Congress.gov, 2005).

November 15, 2005. Statement by Sen. James Inhofe (R-OK) in the Committee Report on S. 1869, the Coastal Barrier Resources Reauthorization Act of 2005:
"The [Coastal Barrier Resources Act] encourages the conservation of hurricane prone, biologically rich coastal barriers by restricting Federal expenditures that encourage development … CBRA is a free-market approach to conservation. These areas can be developed, but Federal taxpayers do not underwrite the investments." (Inhofe, 2005).

December 16, 2005. S. 1869, the "Coastal Barrier Resources Reauthorization Act of 2005," passed the Senate with an amendment by unanimous consent. It passed the House by voice vote on May 16, 2006. (Congress.gov, 2005).

May 25, 2006. S. 1869, the "Coastal Barrier Resources Reauthorization Act of 2005," signed into law by President George Bush. (Congress.gov, 2006).

April 8, 2014. Statement by former U.S. Representative Thomas B. Evans, Jr., (R-DE), a co-author of the 1982 CBRA. "The CBRA ultimately was crafted by wide-ranging and diverse interests: Republicans and Democrats, conservatives and liberals, environmentalists and tax hawks, all working together." (Evans, 2014).

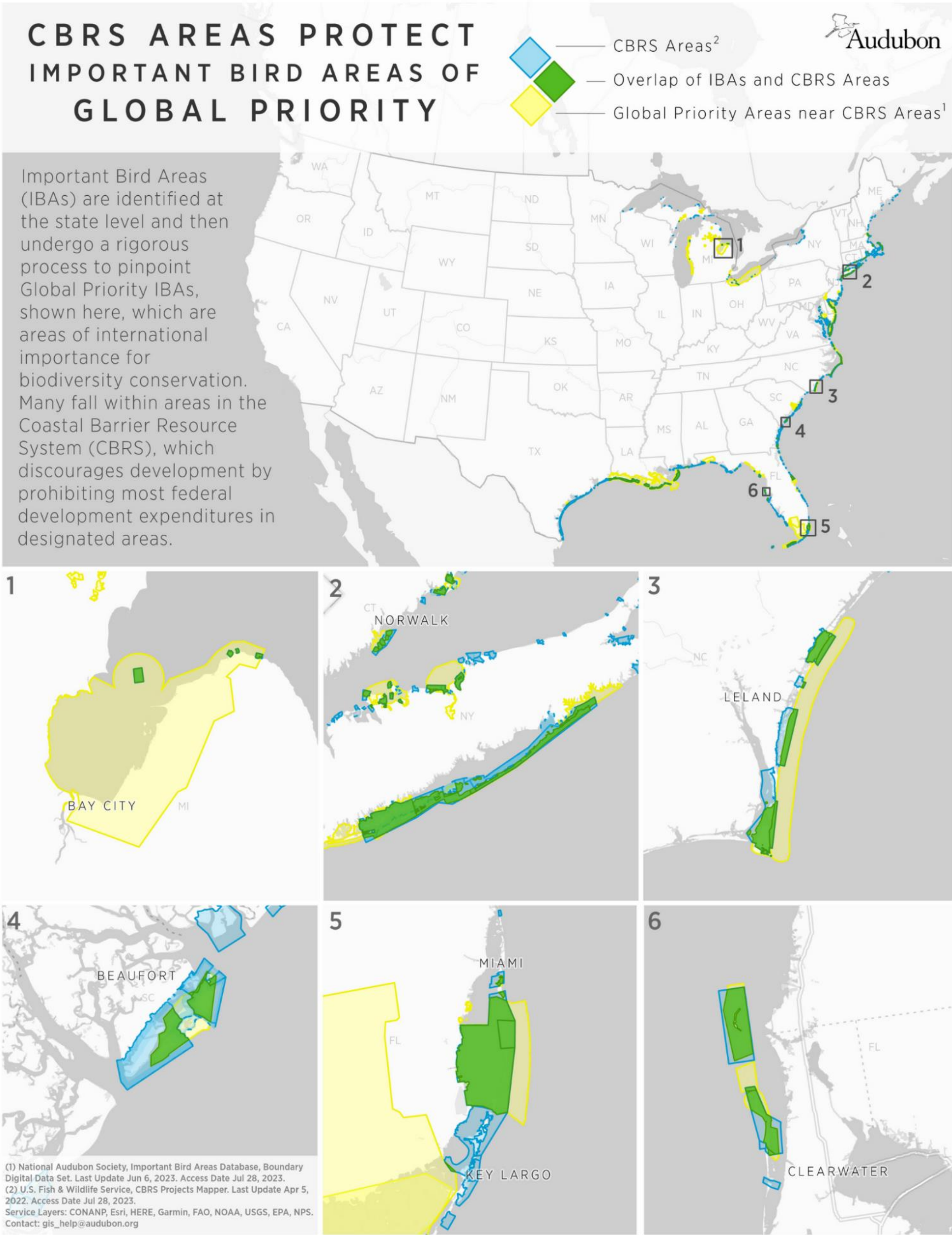
May 15, 2018- December 21, 2018. HR 5787, "Strengthening Coastal Communities Act of 2018," introduced in the House by Rep. Neal P. Dunn (R-FL) with 1 Republican and 1 Democrat original co-sponsors, followed by 1 additional Republican co-sponsor in September. On November 16, 2018 the bill passed the U.S. House of Representatives by a vote of 375 yeas, 1 nay, and 54 not voting. It passed the Senate without amendment by unanimous consent on December 20, 2018. On December 21, 2018, HR 5787, Strengthening Coastal Communities Act of 2018, signed into law by President Trump. (Congress.gov, 2018).

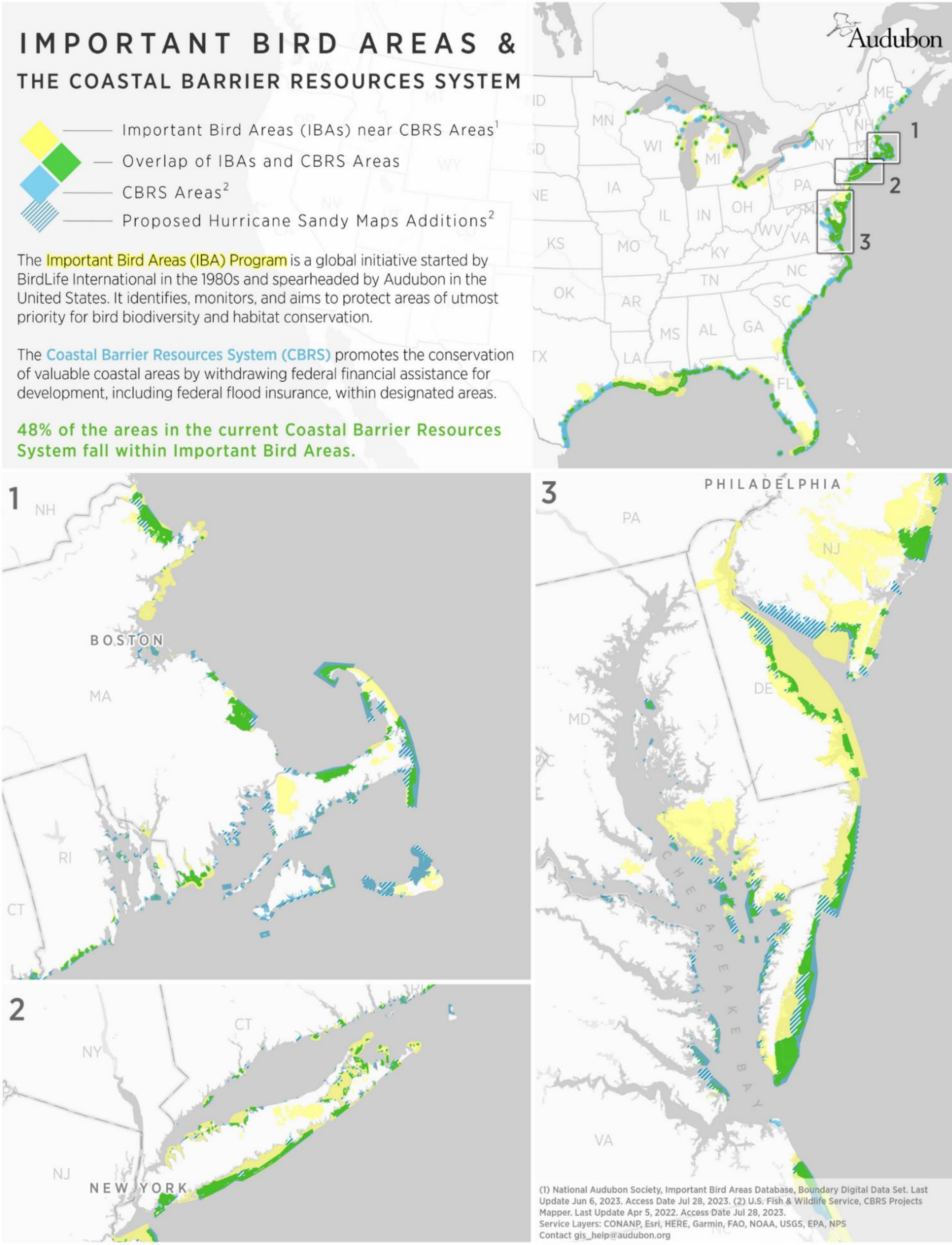
September 27, 2023. S. 2958, "Strengthening Coastal Communities Act of 2023, was introduced by Sen. Tom Carper (D-DE) and passed the Senate Committee on Environment and Public Works by unanimous voice vote. Additional co-sponsors included 2 Republicans and 1 Democrat. (Congress.gov, 2023).

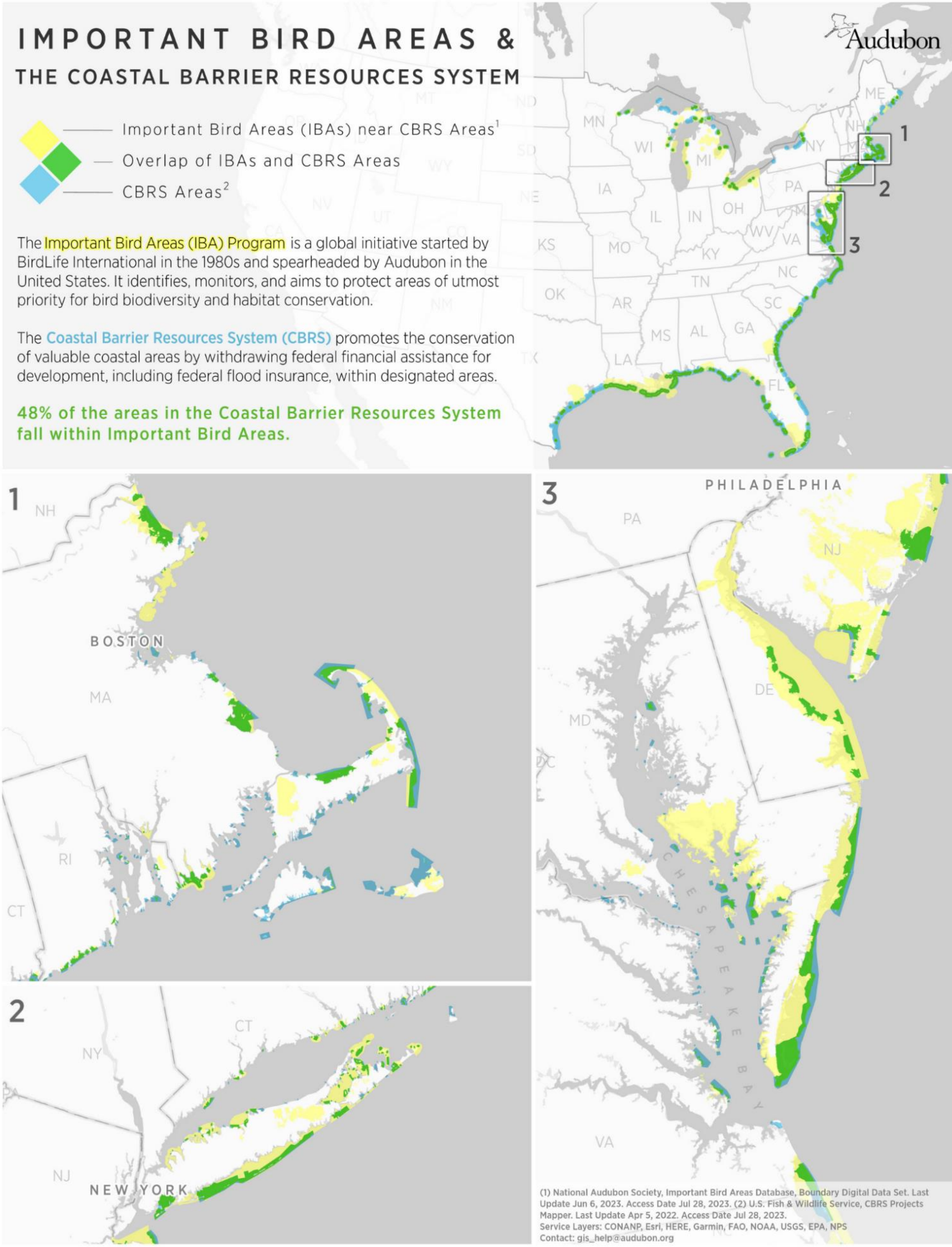
December 6, 2023. H.R. 5490, "Bolstering Ecosystems Against Coastal Harm Act (BEACH)," was passed by unanimous voice vote with amendments by the House Committee on Natural Resources. (Congress.gov, 2023). The bill was introduced on September 14, 2023, by Rep. Jen Kiggans (R-VA). (Kiggans, 2023).

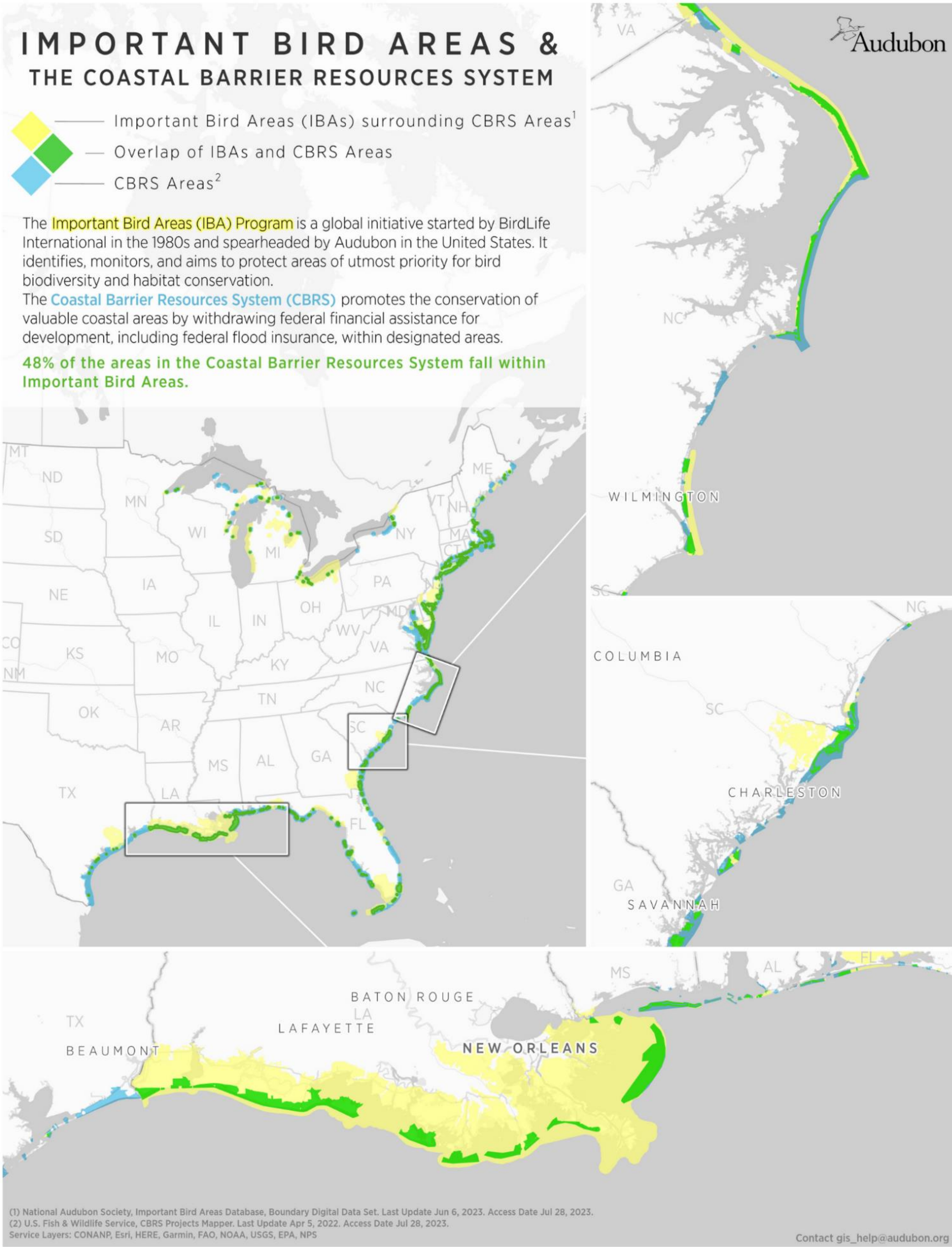

Coastline in Florida. Photo: USFWS

Maps


CBRS AREAS PROTECT
IMPORTANT BIRD AREAS OF
GLOBAL PRIORITY
CBRS Areas[2]
Overlap of IBAs and CBRS Areas
Global Priority Areas near CBRS Areas[1]
Audubon
Important Bird Areas (IBAs) are identified at the state level and then undergo a rigorous process to pinpoint Global Priority IBAs, shown here, which are areas of international importance for biodiversity conservation. Many fall within areas in the Coastal Barrier Resource System (CBRS), which discourages development by prohibiting most federal development expenditures in designated areas.
1
BAY CITY
MI
2
NORWALK
CT
NY
3
LELAND
NC
4
BEAUFORT
SC
5
MIAMI
FL
KEY LARGO
6
CLEARWATER
FL
(1) National Audubon Society, Important Bird Areas Database, Boundary Digital Data Set. Last Update Jun 6, 2023. Access Date Jul 28, 2023.
(2) U.S. Fish & Wildlife Service, CBRS Projects Mapper. Last Update Apr 5, 2022. Access Date Jul 28, 2023.
Service Layers: CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS.
Contact: gis_help@audubon.org


IMPORTANT BIRD AREAS &
THE COASTAL BARRIER RESOURCES SYSTEM
Important Bird Areas (IBAs) near CBRS Areas[1]
Overlap of IBAs and CBRS Areas
CBRS Areas[2]
Proposed Hurricane Sandy Maps Additions[2]
The Important Bird Areas (IBA) Program is a global initiative started by BirdLife International in the 1980s and spearheaded by Audubon in the United States. It identifies, monitors, and aims to protect areas of utmost priority for bird biodiversity and habitat conservation.
The Coastal Barrier Resources System (CBRS) promotes the conservation of valuable coastal areas by withdrawing federal financial assistance for development, including federal flood insurance, within designated areas.
48% of the areas in the current Coastal Barrier Resources System fall within Important Bird Areas.
Audubon
1
2
3
BOSTON
MA
RI
CT
NH
NY
NJ
NEW YORK
PHILADELPHIA
PA
DE
MD
VA
CHESAPEAKE BAY
(1) National Audubon Society, Important Bird Areas Database, Boundary Digital Data Set. Last Update Jun 6, 2023. Access Date Jul 28, 2023. (2) U.S. Fish & Wildlife Service, CBRS Projects Mapper. Last Update Apr 5, 2022. Access Date Jul 28, 2023.
Service Layers: CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
Contact gis_help@audubon.org


IMPORTANT BIRD AREAS &
THE COASTAL BARRIER RESOURCES SYSTEM
Audubon
Important Bird Areas (IBAs) near CBRS Areas[1]
Overlap of IBAs and CBRS Areas
CBRS Areas[2]
The Important Bird Areas (IBA) Program is a global initiative started by BirdLife International in the 1980s and spearheaded by Audubon in the United States. It identifies, monitors, and aims to protect areas of utmost priority for bird biodiversity and habitat conservation.
The Coastal Barrier Resources System (CBRS) promotes the conservation of valuable coastal areas by withdrawing federal financial assistance for development, including federal flood insurance, within designated areas.
48% of the areas in the Coastal Barrier Resources System fall within Important Bird Areas.
1
2
3
BOSTON
NEW YORK
PHILADELPHIA
CHESAPEAKE BAY
(1) National Audubon Society, Important Bird Areas Database, Boundary Digital Data Set. Last Update Jun 6, 2023. Access Date Jul 28, 2023. (2) U.S. Fish & Wildlife Service, CBRS Projects Mapper. Last Update Apr 5, 2022. Access Date Jul 28, 2023.
Service Layers: CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
Contact: gis_help@audubon.org


IMPORTANT BIRD AREAS &
THE COASTAL BARRIER RESOURCES SYSTEM
Important Bird Areas (IBAs) surrounding CBRS Areas[1]
Overlap of IBAs and CBRS Areas
CBRS Areas[2]
The Important Bird Areas (IBA) Program is a global initiative started by BirdLife International in the 1980s and spearheaded by Audubon in the United States. It identifies, monitors, and aims to protect areas of utmost priority for bird biodiversity and habitat conservation.
The Coastal Barrier Resources System (CBRS) promotes the conservation of valuable coastal areas by withdrawing federal financial assistance for development, including federal flood insurance, within designated areas.
48% of the areas in the Coastal Barrier Resources System fall within Important Bird Areas.
Audubon
VA
NC
WILMINGTON
COLUMBIA
SC
CHARLESTON
GA
SAVANNAH
TX
BEAUMONT
LAFAYETTE
BATON ROUGE
LA
NEW ORLEANS
MS
AL
FL
(1) National Audubon Society, Important Bird Areas Database, Boundary Digital Data Set. Last Update Jun 6, 2023. Access Date Jul 28, 2023.
(2) U.S. Fish & Wildlife Service, CBRS Projects Mapper. Last Update Apr 5, 2022. Access Date Jul 28, 2023.
Service Layers: CONANP, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS
Contact gis_help@audubon.org

Citations

Branham, J., et. al., (2022). *Removing federal subsidies from high hazard coastal areas slows development*. Frontiers in Ecology and the Environment, vol. 20, issue 9, pp. 500-506, https://ui.adsabs.harvard.edu/abs/2022FrEE...20..500B/abstract.

Chafee, J., (1998). *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*. https://www.epw.senate.gov/105th/cha_9-22.htm.

Clinton, W., (2000). *Statement on Signing the Coastal Barrier Resources Reauthorization Act of 2000*. https://www.presidency.ucsb.edu/documents/statement-signing-the-coastal-barrier- resources-reauthorization-act-2000.

Coburn, A. and Whitehead, J., (2019). *An Analysis of Federal Expenditures Related to the Coastal Barrier Resources Act (CBRA) of 1982.* https://bioone.org/journals/journal-of-coastal- research/volume-35/issue-6/JCOASTRES-D-18-00114.1/An-Analysis-of-Federal-Expenditures- Related-to-the-Coastal-Barrier/10.2112/JCOASTRES-D-18-00114.1.short.

Congress.gov, (1990). *H.R. 2840 – Coastal Barrier Improvement Act*. https://www.congress.gov/bill/101st-congress/house-bill/2840.

Congress.gov, (2000). *S. 1752 – Coastal Barrier Resources Reauthorization Act of 2000*. https://www.congress.gov/bill/106th-congress/senate-bill/1752/cosponsors.

Congress.gov, (2005). *S. 1869 – Coastal Barrier Resources Reauthorization Act of 2005*. https://www.congress.gov/bill/109th-congress/senate-bill/1869/cosponsors.

Congress.gov, (2018). *H.R. 5787 – Strengthening Coastal Communities Act of 2018*. https://www.congress.gov/bill/115th-congress/house-bill/5787.

Congress.gov, (2023). *S. 2958 – Strengthening Coastal Communities Act of 2023*. https://www.congress.gov/bill/118th-congress/senate-bill/2958/text.

Congress.gov, (2023). *H.R. 5490 – Bolstering Ecosystems Against Coastal Harm Act*. https://www.congress.gov/bill/118th-congress/house-bill/5490/text.

Costanza, R., Pérez-Maqueo, O., et. Al. (2008). *The Value of Coastal Wetlands for Hurricane Protection*. https://www.semanticscholar.org/paper/The-Value-of-Coastal-Wetlands-for-Hurricane-Costanza-P%C3%A9rez-Maqueo/d28899300d99f0a5355f56b05830cec2386958b9?utm_source=direct_link.

Druckenmiller, H. and Liao, Y., et. al., (2023). *Can Removing Development Subsidies Promote Adaptation: The Coastal Barrier Resources System as a Natural Experiment.* https://www.lincolninst.edu/publications/working-papers/can-removing-development-subsidies-promote-adaptation.

Evans, T., (2014). *Statement by the Honorable Thomas B. Evans, Jr. Before the Committee on Natural Resources Subcommittee on Fisheries, Wildlife, Oceans and Insular Affairs*. https://docs.house.gov/meetings/II/II22/20140408/102027/HHRG-113-II22-Wstate-EvansJrT- 20140408.pdf.

Federal Emergency Management Agency (FEMA), (n.d.). *Community Rating System*. https://www.fema.gov/floodplain-management/community-rating-system.

FEMA, (2017). *National Flood Insurance Program Community Rating System Coordinator's Manual.* https://www.fema.gov/sites/default/files/documents/fema_community-rating-system_coordinators-manual_2017.pdf.

Gourevitch, J. and Pinter, N., (2022). *FEMA's Community Rating System: Worth the Effort?* Wharton Risk Center. https://esg.wharton.upenn.edu/wp-content/uploads/2023/08/FEMAs- Community-Rating-System-Issue-Brief-April-2022.pdf.

Gulf Spill Restoration, (2021). *On Dauphin Island, Acquiring Land Is for the Birds*. https://www.gulfspillrestoration.noaa.gov/2021/01/dauphin-island-acquiring-land-birds.

Hein, C. (2023). *Testimony of Christopher J. Hein, Ph.D. Wakefield Associate Professor of Marine Science Virginia Institute of Marine Science, William & Mary before the Subcommittee on Water, Wildlife, and Fisheries Committee on Natural Resources United States House of Representatives on H.R. 5490, Bolstering Ecosystems Against Coastal Harm (BEACH) Act*. https://naturalresources.house.gov/uploadedfiles/testimony_hein.pdf.

Inhofe, J., (2005). *Coastal Barrier Resources Reauthorization Act of 2005 Report*. https://www.congress.gov/congressional-report/109th-congress/senate- report/179/1?overview=closed.

Maygarden, D., (n.d.). *Barrier Islands*. https://lacoast.gov/new/Ed/Curriculum/BarrierIslandEducatorsGuide.pdf.

Narayan, S., Beck, M.W., Wilson, P. et al., (2017). *The Value of Coastal Wetlands for Flood Damage Reduction in the Northeastern USA*. *Sci Rep* 7, 9463, https://doi.org/10.1038/s41598- 017-09269-z.

National Oceanic and Atmospheric Administration (NOAA), (2022). *Fisheries Economics of the United States 2019 Report.* https://www.fisheries.noaa.gov/resource/document/fisheries- economics-united-states-report-2019.

NOAA, (2024). *Fast Facts: Economics and Demographics*. https://coast.noaa.gov/states/fast-facts/economics-and-demographics.html.

NOAA, (2024). *Fisheries Economics of the United States 2021 Report*. https://www.fisheries.noaa.gov/s3//2024-03/FEUS-2021-final-0.pdf.

NOAA, Fisheries, (n.d.). *Understanding Living Shorelines*. https://coast.noaa.gov/czm/enhancement/.

NOAA, Hurricane Research Division, (2023). *Continental United States Hurricane Impacts/Landfalls*. https://www.aoml.noaa.gov/hrd/hurdat/All_U.S._Hurricanes.html.

NOAA, (2020). *Infographic: Value of Coastal Wetland Habitat*. https://www.fisheries.noaa.gov/infographic/infographic-value-coastal-wetland-habitat.

NOAA, Office for Coastal Management, (2024). *The Coastal Zone Enhancement Program*. https://coast.noaa.gov/czm/enhancement/.

R. Reagan, (1982). *Statement on Signing the Coastal Barrier Resources Act*. https://www.reaganlibrary.gov/archives/speech/statement-signing-coastal-barrier-resources- act.

SEPM STRATA Society for Sedimentary Geology, (2024). *The Impact of Barrier Islands on Fisheries*. http://www.sepmstrata.org/page.aspx?pageid=307.

16 U.S.C. § 3503, *Establishment of John H. Chafee Coastal Barrier Resources System. See* https://www.law.cornell.edu/uscode/text/16/3503.

South Carolina Conservation Bank, (2024). *Waites Island*. https://sccbank.sc.gov/waites-island.

Stevens, A. and Jones, S., (2020). *Promoting Coastal Resilience Through Partnerships and Planning*. Sea Grant Law and Policy Journal, Vol. 10:2. https://nri.tamu.edu/media/3076/promoting-coastal-resilience-through-partnerships-and- planning_v2.pdf.

Talton, T. (2019). *State Adds 35 acres to Bird Island Reserve.* https://coastalreview.org/2019/11/bird-island-reserve-grows-by-35-acres.

38 ME Rev Stat §1901-1905, (2022). *See* https://law.justia.com/codes/maine/2022/title- 38/chapter-21/.

U.S. Environmental Protection Agency (EPA), (2024). *Basic Information About Estuaries.* https://www.epa.gov/nep/basic-information-about-estuaries.

U.S. EPA, (2001). Office of Water, Office of Wetlands, Office of Oceans and Watersheds, *Functions and Values of Wetlands*, https://www.epa.gov/sites/default/files/2016-02/documents/functionsvaluesofwetlands.pdf.

U.S. Fish and Wildlife Service (U.S. FWS), (2024). *Coastal Barrier Resources Act.* https://www.fws.gov/program/coastal-barrier-resources-act/maps-and-data.

U.S. FWS, (2023). *CBRS Acreage State Rollup Table.* https://www.fws.gov/media/cbrs-acreage-state-rollup-table.

U.S. FWS, (n.d.). *Coastal Barrier Resources System Maps – Maine*. https://www.fws.gov/library/collections/coastal-barrier-resources-system-maps-maine.

Withrow, B., (2019). *The Daily Beast, Birding (Yes, Birding) Is a Multi-Billion Dollar Ecotourism Industry.* https://www.thedailybeast.com/birding-yes-birding-is-a-multi-billion-dollar-ecotourism-industry.