

MAY 2020

# Long Island Sound Area Conservation Strategy

Creating a healthy and resilient coast where birds and  
people thrive.



Audubon

Clapper Rail  
Photo: Walker Golder

## Creating a resilient coast for the future

The beaches, islands, and estuaries bordering the coasts of New York and Connecticut are threatened—squeezed by rising seas on one side and one of the most densely populated regions of the United States on the other. The natural processes that replenish sand and sediment—and once sustained coastal habitats and enabled them to adapt to changes—are hampered by seawalls, roadways, and other hard structures that accelerate erosion and habitat loss.

Marshes are suffering from chronic flooding, excess nutrients, and loss of high marsh that critically-threatened birds such as Saltmarsh Sparrow and Black Rail rely on. Additional threats, like chronic disturbance and super-abundant predators, threaten seabirds and shorebirds and have contributed significantly to their populations' decline.

Audubon has created this conservation strategy to tackle these threats head-on. We envision a healthy, resilient coast that supports birds, fisheries, and other wildlife in balance with people. Audubon's powerful, centrist network of 120,000 members and 32 chapters across both states, backed by strong state offices and stellar science, policy and conservation strategy teams are engaged to ensure a healthy, thriving coast on Long Island Sound and the Atlantic Coast.

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There is hope for species like the Saltmarsh Sparrow, a marsh-dependent bird that could be extinct in a few decades if current trends continue. Saving this species requires protecting and restoring salt marshes for the future.

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### A FIRST LINE OF DEFENSE FOR COASTAL COMMUNITIES

Resilient, healthy coastal ecosystems not only benefit birds, they also serve as the first line of defense for coastal communities facing stronger storms, more frequent flooding, and sea-level rise. That is why Audubon is advancing nature-based strategies to help the coast weather the impacts of climate change. By restoring and protecting our

“natural infrastructure” like marshes, oyster reefs, seagrass beds, beaches, and islands, we can harness nature’s own defenses. These coastal habitats are more effective at buffering storm surge and protecting coastal communities than “gray infrastructure” like jetties and seawalls.

Natural infrastructure and other climate-smart solutions can buffer storm impacts, reduce flooding, and minimize wetland loss. They also preserve biodiversity and support healthy populations of birds and fish.

Our vision is one of hope and action. Species like Saltmarsh Sparrow may disappear in only 25-30 years unless we act. The fate of seabirds and shorebirds also depends on action.



Saltmarsh Sparrow. Photo: Frank Lehman/Audubon Photography Awards

### FOCUSING CONSERVATION WHERE IT'S NEEDED MOST

The greatest threats of our time require focused conservation actions to ensure that habitats are available for the future and that coastal birds can adapt to the changing coastline.

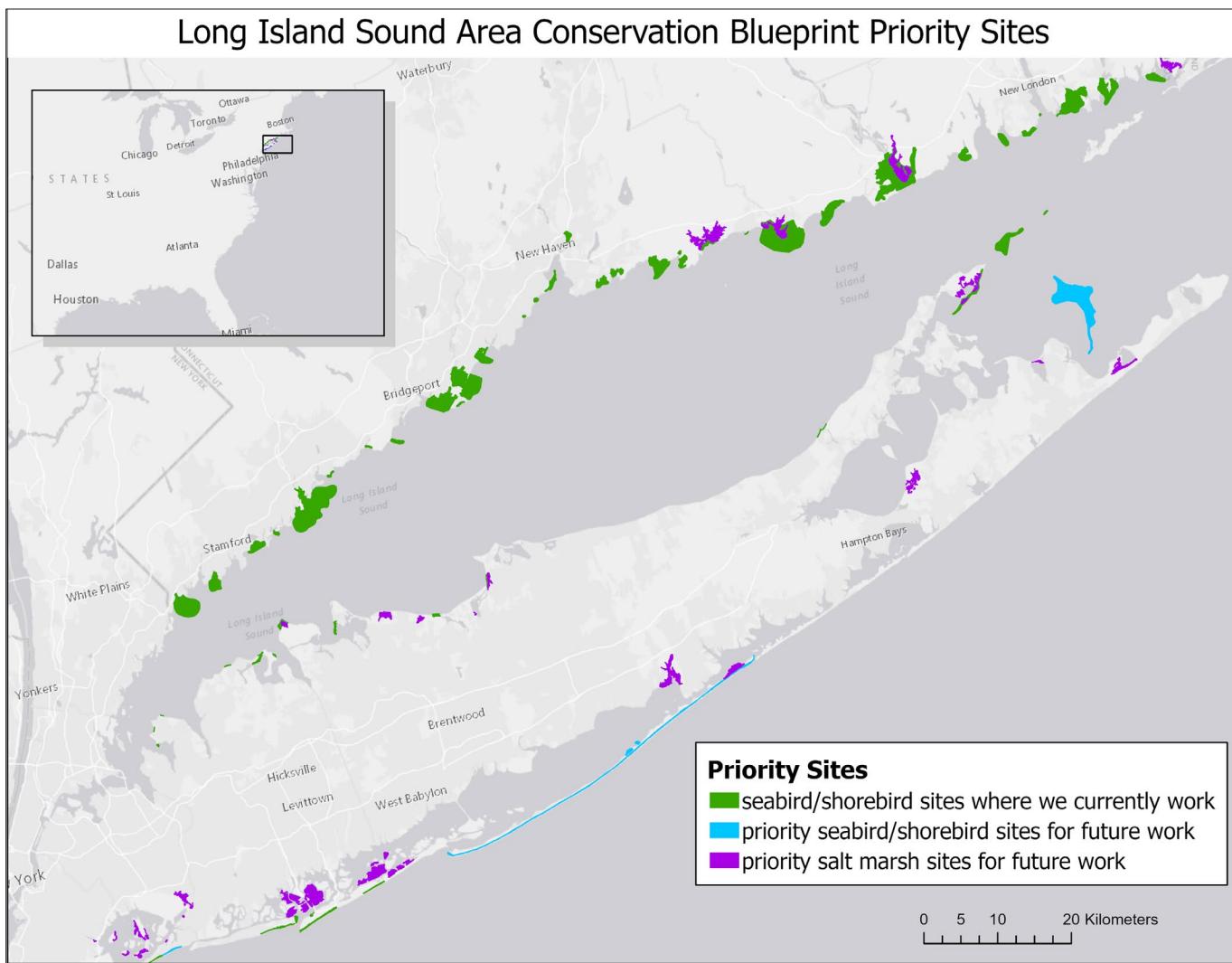
#### Priority birds

American Oystercatcher  
Black Skimmer  
Clapper Rail  
Least Tern  
Roseate Tern  
Piping Plover  
Red Knot  
Saltmarsh Sparrow  
Semipalmated Sandpiper  
Western Sandpiper

Audubon's comprehensive analysis identified more than 13,000 acres of beaches, marshes, future

marshes, and intertidal habitats that are important for sustaining bird populations and protecting communities. Audubon will marshal its network to restore Long Island Sound and the Atlantic Coast as healthy, fully functioning estuaries that support healthy bird populations in balance with human use and recreation. This includes a network of permanently protected and properly managed coastal habitats that ensure adequate areas for breeding, migrating, and wintering birds, and also strong fisheries to provide food for birds. It also requires forward thinking to protect the habitats of the future, like marsh migration corridors, and responsible policies that meet the needs of wildlife and people.

To have the greatest conservation impact, Audubon's conservation, policy, and science teams assessed bird populations, habitat types, and threats along the coasts of New York and Connecticut. The analysis focused on the distribution and abundance of 10 priority birds, the habitats they require, the ecological integrity and resilience of these habitats, the potential impact of sea-level rise, and corridors for marsh migration with 1 and 3 feet of relative sea-level rise. Through this comprehensive effort, we were able to identify the most important areas for our coastal work now and for the future (as depicted in the map below).



## CONSERVATION IMPACT

### STRATEGY 1: PROTECT 5,000 ACRES OF SALT MARSH TO SUPPORT MARSH-DEPENDENT BIRDS, CREATE HEALTHY ESTUARIES, AND IMPROVE RESILIENCE OF COMMUNITIES

The marshes that buffer the coasts of New York and Connecticut are rich and productive, and provide essential habitat for millions of waterfowl, shorebirds, seabirds, and marsh birds. In order to help marshes adapt to sea-level rise, Audubon will focus on protecting marsh migration corridors, restoring marsh, and improving resilience of marsh through techniques such as thin-layering with dredged sediments, terracing, restoring oyster reefs, and creating living shorelines. Together these efforts will sustain and improve the health of marshes for the future.

- Total existing salt marsh: 39,920 acres
- Total salt marsh protected: 12,395 acres
- Total migration space with 1 foot of sea-level rise: 8,755 acres
  - Undeveloped and unprotected: 4,362 acres
- Total migration space with 3 feet of sea-level rise: 14,018 acres
  - Undeveloped and unprotected: 6,782 acres
- Salt marsh priority area: 7,610 acres

#### ***Conservation Goals***

- Protect marsh migration corridors that will be the future marshes.
- Improve resilience of vulnerable salt marshes.
- Restore and enhance priority salt marsh habitat for vulnerable marsh-dependent birds.

### STRATEGY 2: PROTECT 5,000 ACRES OF BEACH, ISLAND AND INTERTIDAL HABITATS

The key to protecting habitat for beach-nesting birds is twofold. First, we must sustain the sandy beaches and tidal flats that birds rely on. Second, and equally important, we must make sure birds are thriving in these protected habitats.

To restore and protect the coastal habitats that birds need, natural processes must take over. Overwash, inlet migration, and formation of tidal flats help sustain essential habitats for birds. Where beach and tidal flats exist, they should be protected; where they have been degraded or lost, they should be restored. Natural inlets should be allowed to remain open and dynamic, without hardened structures like jetties and groins, to help protect barrier islands and other tidal habitats. As sea-level rises, coastal habitats will need to be resilient and dynamic to keep up.

- Total beach and dune: 10,808 acres
- Total intertidal: 18,692 acres
- Protected beach and dune: 5,200 acres
- Protected intertidal: 2,601 acres
- Beach and dune priority area: 1,669 acres
- Intertidal priority area: 4,089 acres

In order to sustain bird populations on these restored habitats, they must also be protected from disturbance. Disturbance from beachgoers, dogs, and vehicles can be detrimental to birds, even on otherwise ideal nesting sites. By expanding stewardship and engaging communities in protecting beaches, islands, and tidal flats, we can keep both birds and people safe.

#### ***Conservation Goals***

- Protect and improve resilience of beaches, inlets, islands, and tidal habitats.

- Implement model stewardship to reduce threats to breeding and non-breeding birds, and their habitats.
- Build a corps of 1,000 volunteer stewards and increase community support for stewardship and habitat protection.

### **STRATEGY 3: ADVANCE POLICIES THAT KEEP THE COAST HEALTHY AND RESILIENT FOR BIRDS AND PEOPLE**

Audubon is the voice for birds from town halls to the U.S. Capitol. We will bring the full power of our expansive network to bear on behalf of the most important policies that will lead to protection for birds, ecosystem restoration and resilience, and healthy coastal habitats.

#### ***Conservation Goals***

- Strengthen and engage Audubon's network to be a powerful voice for state funding coastal resilience, habitat restoration, responsible wind energy, and water quality improvements.
- Engage legislators who will champion forage fish protections and coastal adaptation legislation.
- Support the establishment, implementation, and increased funding of federal programs that promote natural infrastructure, beneficial use of dredged material, and other nature-based solutions that improve habitat for birds and other wildlife, and reduce flood risks for communities.