



**U.S. Fish and Wildlife Service**

# **2022 Coastal Program Accomplishment Report**



# Note from the Chief of Refuges



When it comes to wildlife conservation, no one can do it alone.

I think of the Coastal Program as a leader and a convener. It brings community partners together to use the resources of the U.S. Fish and Wildlife Service (Service) to help conserve habitat for the benefit of wildlife and people. These partners include Tribes, state and local governments, private and public landowners, nonprofit organizations, and the coastal communities themselves.

From the Great Lakes to Pacific islands, from Alaska to the Atlantic coast and the Caribbean, locally based Service staff are working with partners to leverage knowledge and financial resources and creating impactful coastal conservation projects that this year:

- Restored and protected habitats that create corridors for wildlife, including threatened and endangered species;
- Improved fish passage and aquatic habitats by removing barriers in streams, which often benefits wildlife and people upstream of the coast, too;

- Conserved natural ecosystem services and functions that enable wildlife and local communities to be more resilient to climate change;
- Drew on tribal partners’ distinctive sense of place, indigenous knowledge and connection to land and waters;
- Fostered connections with nature among underrepresented and underserved communities; and
- Enhanced local outdoor recreation opportunities, including for visitors to national wildlife refuges.

In 2022, the Coastal Program helped fund and coordinate 185 projects in 14 states and territories. Through partnerships, the Coastal Program conserved 45,033 acres and leveraged \$9 for every Coastal Program dollar spent.

Thank you to the partners and our people who work in the Coastal Program for your passion and dedication. I look forward to seeing what we can accomplish together to produce community-centered solutions to coastal conservation challenges.

*Cynthia Martinez*  
Chief of the National Wildlife Refuge System

Cynthia Martinez, Chief of the National Wildlife Refuge System / USFWS

# U.S. Fish and Wildlife Service Coastal Program

**A Conservation Leader**  
that works with communities to voluntarily protect and improve habitats that benefit fish, wildlife, and people. We also develop resources for decision makers, land managers, and restoration practitioners to better manage and deliver habitat conservation. By working together, we sustain the people and wildlife that rely on coastal and marine ecosystems.



**Our Mission**  
is to achieve voluntary habitat conservation by providing technical and financial assistance, in collaboration with partners, for the benefit of federal trust species.

**Working with Communities**  
along our nation’s coasts, we conserve habitat on public and private lands to deliver landscape conservation, build resilient coasts and communities, and maintain habitat connectivity and continuity, from headwater streams to the ocean.

Find the Coastal Program online:

**Webpage**  
[bit.ly/3Q0leLf](https://bit.ly/3Q0leLf)

**Facebook**  
[bit.ly/3GyDGrE](https://bit.ly/3GyDGrE)

**YouTube**  
[bit.ly/3dihu7A](https://bit.ly/3dihu7A)



## Coastal Program Priorities



### Species Conservation

Conserving habitats that recover and sustain federal trust species.



### Coastal Resiliency & Habitat Connectivity

Building resilient ecosystems and communities, protecting infrastructure, and supporting habitat connectivity on national wildlife refuges and other public and private lands.



### Access & Recreation

Enhancing the visitor experience at national wildlife refuges and building a legacy of stewardship by expanding public access and recreation on public lands and elsewhere.



### Engagement & Urban Conservation

Working with Tribes, states, and others to promote the North American Wildlife Conservation Model and urban habitat conservation.

## Department of the Interior & Service Priorities

In 2022, we worked with partners and communities to conserve 45,033 acres of land and waters that support wildlife conservation and strengthen the health and resiliency of human communities. Our voluntary habitat conservation supports a landscape approach and often uses nature based solutions – sustainable natural features and processes – to protect and improve ecosystem functions and services. These ecosystem benefits can address many societal needs and challenges, such as clean water, carbon sequestration, and flood protection that builds coastal resiliency and reduces climate change impacts.

Our conservation efforts support local economies by employing local businesses that assist with the planning and implementation of on-the-ground projects. In addition, the protected and improved habitats sustain the livelihood of commercial fishing, petroleum refineries, tourism, and other businesses that rely on coastal habitats. When possible, we also improve public access, recreation, and environmental education opportunities that allow people to connect with nature and foster a sense of environmental stewardship among communities.

## Coastal Program Priorities



## Environmental Justice

Conservation justice, equity, diversity, inclusion, and accessibility are complex societal challenges that require thoughtful and ambitious solutions as well as scaled measures that can address smaller inequities. As the Service implements EJ40 and similar initiatives, the Coastal Program is reviewing how we deliver voluntary habitat conservation to better support underserved and underrepresented communities.

Fundamentally, our approach to conservation requires building a diverse coalition of stakeholders, including Tribes and minority communities. We are reviewing our conservation efforts to more broadly evaluate the ecological benefits delivered to entire communities. For example, the Coastal Program is collaborating with Restore America's Estuaries, the Service's Urban Wildlife Conservation Program, and local organizations to convene a series of focus groups with underrepresented and underserved coastal communities. The purpose of the focus groups is to identify and remove obstacles to engagement, so we can better serve these communities. We are also helping to make institutional changes in the Service by participating in working groups seeking to build a culture of diversity, inclusion, and racial justice and equity.

*Child playing in the rain / Andre Taissin, Unsplash, Visitors to Long Whard Nature Preserve, Connecticut / USFWS, and Visitors to Freshwater Farms Reserve, California / USFWS*

# 2022 Project Statistics



185  
Projects



223  
Project Partners



14  
States and Territories



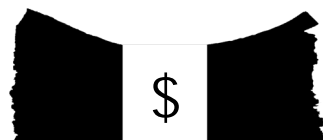
31,297  
Acres Protected



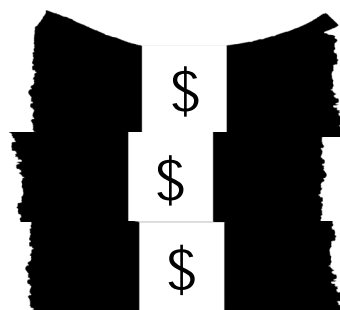
13,736  
Acres Restored



59  
Projects on Federal Lands



More than  
**\$4,315,000**  
in Coastal Program Contributions

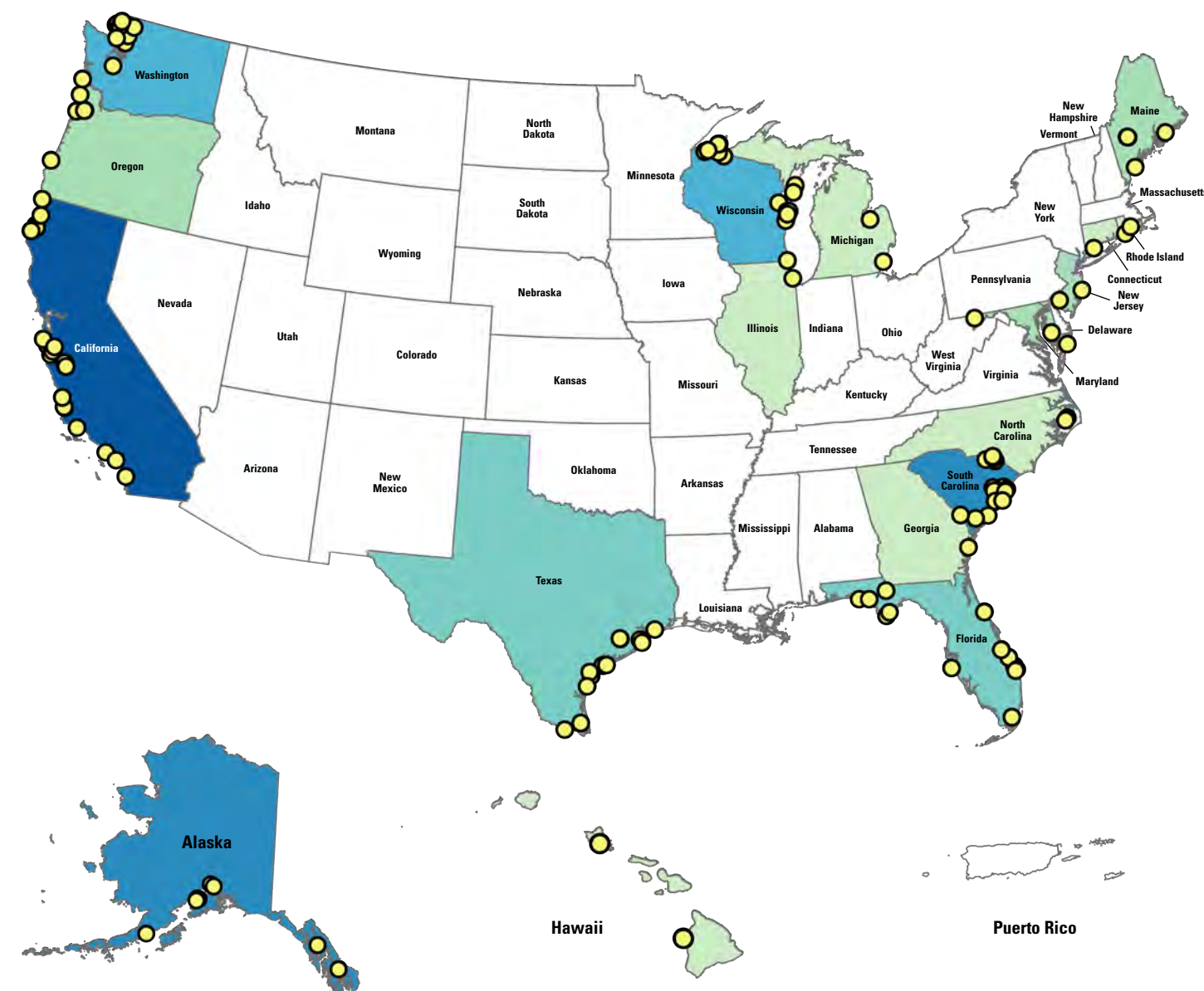


More than  
**\$39,515,000**  
in Partner Contributions

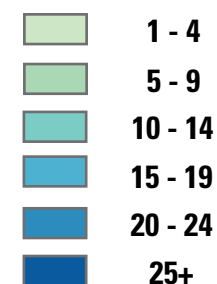


**\$1 to \$9**  
Coastal Program to  
Partner Contributions

# 2022 Project Map\*



## Number of Projects



\* Project map includes only habitat improvement projects. Technical assistance (e.g., conservation planning and monitoring) and maintenance projects and stories are not included on the map.



## Project Statistics



Projects for  
Migratory Birds



Projects for Threatened and  
Endangered Species



Projects for  
Interjurisdictional Fish

## Species Recovery Texas

Once spanning more than 6 million acres, less than one percent of the coastal prairies in Texas remain. Coastal prairies provide wildlife and pollinator habitat, flood control, carbon storage, and even grazing for livestock, among other important ecosystem services and functions.

On the Laguna Atascosa National Wildlife Refuge, the Coastal Program, the Refuge, and The Conservation Fund revitalized 525 acres of coastal prairie by removing the invasive brush. The restoration project provides habitat for migratory birds and the federally endangered northern aplomado falcon.

The Coastal Program provided important technical assistance that included acquiring \$158,000 in grant funds through the National Fish and Wildlife Foundations' ConocoPhillips Spirit of Conservation Program.



*Texas coastal prairie / Texas Parks and Wildlife and (Inset) Northern aplomado falcon / Dave Allen*



## Community Stewardship California



El Segundo blue butterflies.

The El Segundo blue is a federally endangered butterfly that is endemic to coastal dunes along southern California. Habitat loss has restricted the butterfly to a handful of locations near Los Angeles. The Coastal Program, Los Angeles Conservation Corps, Los Angeles County Department of Beaches and Harbors, South Bay Parkland Conservancy, and others are restoring habitat for the butterfly along ocean bluffs in the City of Redondo Beach, California.

By planting sea cliff buckwheat and other native dune plants, the partnership improved three acres of habitat for the butterfly and other pollinators. The partnership has support and funding to expand the restoration at least four more acres. Project monitoring observed a three-fold increase of El Segundo blue butterflies on the project site, likely



Volunteers helping to restore coastal dunes.



Volunteer dune maintenance event.

because of the increased buckwheat and removal of invasive plants.

The Conservation Corps carried out most of the project implementation, which provided at-risk young adults and school-aged youth with on-the-job training and education in conservation. Later the partnership was expanded to include a local non-profit – South Bay Parkland Conservancy, who will continue to maintain the restoration site through volunteer community events.

Read more about the project at [Diversity of Effort Benefits Diversity in Nature](#).

*(Left and clockwise) Federally endangered El Segundo blue butterfly / Ann Dalkey, Volunteers restoring coastal dunes./ Rachel Barnes, Patch.com, and Volunteer dune maintenance event / USFWS.*

## Island Conservation Hawaii



Nihoa finch.

Nihoa Island is a 156-acre volcanic remnant that supports one of the most intact coastal ecosystems in the Hawaiian Archipelago. Located in Papahānoumokuākea Marine National Monument, the island supports a diverse array of endemic and endangered plants and animals, such as the Nihoa finch (pictured). The southern sandbur, an invasive grass, posed a serious threat to the entire island. Spreading rapidly across the island, the grass seeds prolifically and forms dense mats that displace native vegetation and can alter the island's ecosystem permanently.

The Coastal Program and the National Wildlife Refuges' Inventory and Monitoring Program conducted field tests of sandbur control techniques, such as hand-pulling, weed cloth, and herbicide. Based on those tests, the Service began an island-wide treatment of a pre-germination herbicide in 2019. This approach has proven very effective resulting in a 77% decrease in the abundance and distribution of sandbur by April 2022.

*Coastal Program biologist (S. Plentovich) holding a Nihoa finch, Northwestern Hawaiian Islands/ USFWS*

## A Leap for Conservation Washington



Oregon spotted frog.

The federally threatened Oregon spotted frog (pictured) is native to the Pacific Northwest and relies on the edges of freshwater ponds and wetlands for breeding, rearing, and foraging. The Samish River Preserve harbors one of the largest number of this frog species in northern Washington; however, invasive reed canarygrass and degraded habitats threaten the future of this population.

The Coastal Program works with the [Whatcom Land Trust](#) – owner of the Preserve and the Whatcom County Amphibian Monitoring Program to remove the reed canarygrass and restore habitat conditions that are more favorable for the frogs. Monitoring by the partnership found an increase in survival at all life stages resulting in more frogs at the Preserve.

Continued monitoring will inform conservation efforts for the frogs on the Preserve and serve as a model for Oregon spotted frog conservation efforts elsewhere in the region. The success of this project led the Land Trust to develop a plan to conserve other wildlife on the property.

*Oregon spotted frog / Stephen Nyman*



# Project Statistics



**4,280**  
Acres treated with  
Prescribed Fire



**2,928**  
Acres treated for  
Invasive Species



**23**  
Miles of  
Restored Streams

## Restoring Wild Rice Wisconsin

Native wild rice was once an important part of the coastal ecosystems along the Great Lakes. However, habitat loss and poor habitat conditions have caused a significant decline in this keystone species. Wild rice provides habitat structure and stability, nutrient uptake, and food for fish and wildlife. Also a staple of native communities, such as the Ojibwe, wild rice continues to be culturally and ceremonially important to local communities.

Since 2015, conservation partners have been working to reintroduce wild rice along the western shore of Green Bay. The Coastal Program, Ducks Unlimited, University of Wisconsin, Menominee Indian Tribe of Wisconsin, and other partners are also supporting Wild Rice

in the Classroom – a local education initiative that incorporates the topic of wild rice into environmental science and social studies lessons and other subjects. The lessons also foster a sense of stewardship among students and the community.

At the Barkhausen Waterfowl Preserve, 35 students from the Menominee Indian High School learned about wild rice harvesting and seeding wild rice (pictured). In addition, 40 volunteers from the Appleton Breakfast Rotary Club, Pulaski Community Middle School, and Howard-Suamico Elementary School planted wild rice at the Preserve.

*Students harvesting and seeding wild rice / Menominee Indian High School*



## Nature-Based Solutions California



Existing conditions along Highway 101.



Conceptual nature-based restoration.

The Coastal Program provides technical assistance to partners seeking to implement nature-based solutions – sustainable conservation practices that integrate natural features and functions to achieve coastal resilience. The Coastal Program assisted the Humboldt County Department of Public Works by evaluating nature-based solutions that will reduce coastal erosion along a vulnerable section of US Highway 101 between Eureka and Arcata.

We evaluated wave erosion susceptibility through wave modeling and geotechnical investigations. The preferred restoration concept consists of creating tidal channels, beach, and tidal marsh habitats along the shoreline. In addition to addressing coastal erosion, the restoration concept will address coastal flooding, sea level rise, and provide important habitat for federally threatened Coho salmon and other Pacific salmon.

(Top) Existing conditions along US Highway 101 / GHD, Inc. and (Bottom) Conceptual nature-based restoration / GHD, Inc.

## Aquatic Connectivity Maine



Beginning of dam removal.

In the Town of Farmington, the Coastal Program worked with partners to remove the Walton's Mill Dam and restore stream habitat that reopened more than 40 miles of spawning habitat for Atlantic salmon – some of the best in the Kennebec watershed.

Project partners include the Atlantic Salmon Federation, Service's Maine Fish and Wildlife Conservation Office, National Oceanic and Atmospheric Administration's Restoration Center, Maine Department of Marine Resources, and the Town of Farmington, among other partners.

The project eliminates the threat of catastrophic dam failure exacerbated by increasingly intense storms. The project also improves habitat connectivity and restores ecosystem functions and services.

The location of the former dam also serves as a gathering place for the local community. The adjacent public park was expanded to include a new play area, pavilion, bathrooms, and improved river access. Interpretive signs were also installed that describe the history of the area and the importance of the watershed to Atlantic salmon.

Watch a time-lapse video of the dam removal at [Chronolog](#).

Removal of Walton's Mill Dam / USFWS

## Carp(e) Diem North Carolina



Sunset on Lake Mattamuskeet.

Established in 1934, the [Mattamuskeet National Wildlife Refuge](#) is home to marshes, swamps, and forests as well as the largest natural freshwater lake in North Carolina – Lake Mattamuskeet. Located along the Atlantic Flyway, the Refuge provides important migratory bird and wintering habitat for more than 100,000 waterfowl and other birds.



Invasive common carp.

However, invasive common carp (pictured) are threatening the welfare of these birds by degrading aquatic habitats in the lake and waterfowl impoundments on the Refuge. Carp have also caused the decline of submerged aquatic vegetation (SAV), which provides critical habitat and food for birds, fish, and invertebrates.

The Coastal Program implements restoration projects on national wildlife refuges to support the refuge's conservation objectives. In support of the [Lake Mattamuskeet Watershed Restoration Plan](#), the Coastal Program is working with the North Carolina Wildlife Resources Commission, North Carolina Botanical Garden, and others to inventory and remove carp on the Refuge. The carp's removal will improve water quality and reduce foraging on SAV by carp in the lakes and impoundments. This project and other conservation actions will restore an expected 15,000 acres of aquatic habitat on the refuge. Similar efforts were used in the 1950's, which restored the health of these habitats for decades.

Read more about the project at [Lake Mattamuskeet Aquatic Grass Restoration](#).

Sunset on Lake Mattamuskeet, Mattamuskeet National Wildlife Refuge / Carolyn Lieberman, USFWS and Common carp / Kana Hata, Flickr



## Project Statistics



**11,549**  
Acres Conserved  
on National  
Wildlife Refuges



**146**  
Acres on  
National Parks

## Small Fish, Big Project Louisiana

The saltmarsh topminnow is a small fish that is only found in salt marshes along the northern Gulf Coast. There has been a decline in the topminnow population due to the loss of salt marshes in the region, so much so that the Service has been petitioned to protect this fish under the Endangered Species Act. The Coastal Program is working with partners to restore tidal habitats that can help eliminate the need for federal protection of this fish.

On the Sabine National Wildlife Refuge, the Coastal Program created eight tidal creeks, totaling more than 10,000 linear feet, increasing aquatic habitat and improving access to marshes for the topminnow. Marshes are an important nursery not only for the topminnow, but also other commercially and recreationally important species, such as brown shrimp, white shrimp, blue crab, red drum, spotted seatrout, flounder, among others. This project also improves recreational opportunities on the refuge, such as fishing and crabbing.



Construction of tidal creek.

*Restored tidal creek, Sabine National Wildlife Refuge / USFWS and  
(Inset) Construction of tidal creek, Sabine National Wildlife Refuge / USFWS*



## “Dinosaur-shaped” Conservation Alaska



Salmon dipnetting along the Kasilof River.

The Kasilof River is one of the most ecologically significant waterways on the Kenai Peninsula. Also known as “Ggasilatnu” in the Dena’ina language, the river system supports four species of Pacific salmon and at least 165 species of migratory birds, including 37 bird species of greatest concern. The river is also important to the welfare and economy of local communities in Southcentral Alaska. For example, it is estimated that recreational salmon fishing in the Upper Cook Inlet region contributes \$62 million to local economies.<sup>1</sup>

The Conservation Fund purchased the largest private property along the Kasilof River with support from the Coastal Program, National Fish

and Wildlife Foundation, ConocoPhillips, and other partners. Known as the “Dinosaur Parcel” because of its unique shape, the 309-acre property includes 2.25 miles of the Kasilof River and 283 acres of wetlands. The property also makes up 20 percent of the Kasilof River Flats Important Bird Area – a global priority for the Audubon Society.

The Conservation Fund is working to transfer the property to the State of Alaska to permanently protect the property and provide people with recreational opportunities.

1. [https://dot.alaska.gov/stwddes/dcspubs/assets/build/krsa\\_economic\\_value.pdf](https://dot.alaska.gov/stwddes/dcspubs/assets/build/krsa_economic_value.pdf)

Personal use fishing on the Kasilof River / Caz Devere, USFWS

## Aquatic Connectivity Maryland



Brook trout.

Brook trout are the only native trout species in Maryland and support an important recreational fishery with trout anglers contributing more than \$2 million to local economies, annually.<sup>1</sup> Habitat loss and fish passage barriers have contributed to a decline in trout populations with trout occupying 10 percent of their historic range in Maryland.<sup>1</sup>

The Coastal Program worked with the Service’s Maryland Fish and Wildlife Conservation Office and the Maryland Department of Natural Resources to restore aquatic connectivity along the South Branch of Bear Creek in Garrett County. South Branch supports a healthy brook trout population with its high-quality water and habitat conditions.

The partnership replaced a failing culvert that posed an imminent fish passage barrier with a 50-foot span bridge that maintains fish passage and stream functions. The riparian buffer was planted with black willow, dogwood, and elderberry to maintain water temperatures and provide streamside habitat.

1. <https://dnr.maryland.gov/fisheries/Pages/brook-trout/basics.aspx>

Brook trout / Chesapeake Bay Program

## Return of Water Texas



Resaca wetlands are formed from relic river channels.

Wetlands along the Gulf Coast are among North America’s most important waterfowl wintering areas. Ducks Unlimited identifies this region as one of its highest priorities for wetland conservation, because of the region’s significant loss of waterfowl habitat. The Coastal Program worked with Ducks Unlimited, Texas Parks and Wildlife Department (TPWD), and Texas Rice Industry Coalition for the Environment to restore a 10-acre resaca wetland on the Las Palomas Wildlife Management Area.

Prior to the restoration, a shallow borrow ditch drained the wetland on this publicly accessible property owned by the TPWD. The restoration involved replacing a dilapidated water control structure and filling the ditch. The wetland now retains water and the new water control structure allows for proper adjustment of water levels in the wetland.

The management area provides recreational activities, such as hiking, wildlife viewing, and hunting of white-tail deer, rabbit, quail, dove, and chachalaca – the only management area in Texas to offer chachalaca hunting. The management area also supports research opportunities, such as bird banding and wildlife surveys.

Restored resaca wetland, Las Palomas Wildlife Management Area / USFWS



## Project Statistics



698

Acres Conserved  
on Tribal Lands



44,836

Acres with  
Public Access

## Supporting Tribal Communities Michigan

The Six Points Wyandot Tribal Heritage Site is located on the ancestral grounds of the Wyandot of Anderdon near Detroit. The property combines a ceremonial space for the Wyandot to perform spiritual activities with a public space to share their culture.

Although relatively small – only 15 acres, the site is part of a corridor of protected lands that includes the [Detroit River International Wildlife Refuge](#) and Lake Erie Metropark. However, the integrity of the property's wetlands is being compromised by invasive common reed, glossy buckthorn, and European frog-bit, which provides a unique opportunity to restore the ecology on the ancestral grounds of the Wyandot.

As members of the [Detroit River-Western Lake Erie Cooperative Weed Management Area](#), the Tribe is committed to preventing the establishment of new invasive species as well as the removal of existing invasive species.

The Coastal Program worked with the Wyandot community, the International Wildlife Refuge Alliance, and local volunteers to remove invasive plants that restored more than five acres of wetlands (pictured). This restoration effort has a broader benefit of eliminating seed sources and preventing the spread of invasive plants to surrounding wetlands.

*Invasive European frog-bit removal / USFWS*





## A Great Marsh Connecticut



Volunteer and Salt Marsh Steward planting event.

Once more than 1,400 acres, the Great Meadow Marsh has lost more than 50 percent of its tidal wetlands. Considered to be among the best coastal bird habitats, the marsh also provides important ecosystem services and functions, such as flood attenuation and carbon sequestration. The Coastal Program is working with communities to reverse the decline of tidal wetlands and expand ecosystem services and functions.

The Coastal Program and other Service programs worked with Audubon Connecticut, Connecticut Department of Energy and Environmental Protection, National Oceanic and Atmospheric Administration, and the Town of Stratford to restore a 34-acre remnant of the Great Meadow Marsh located on the Stewart B. McKinney National Wildlife Refuge. The restoration project involved removing invasive plants, re-grading the marsh, planting native marsh plants, and creating tidal channels to allow for regular flooding of the marsh.

Volunteers and local high school students hired as Salt Marsh Stewards were critically important to the success of the project by planting more than 165,000 marsh grasses and other native plants. Restoration efforts will continue next year on six acres of salt marsh adjacent to this project.

Designed to adapt to sea-level rise, the tidal marsh will continue to provide critical habitat for coastal breeding birds as well as rare plants and animals, including the marsh pink and saltmarsh sparrow. The Coastal Program is conducting monitoring to evaluate conservation outcomes, such as saltmarsh sparrow use and nesting success.

Read more about the project at the Restoration of the Great Meadows Marsh.

Volunteers planting native marsh grasses, Stewart B. McKinney National Wildlife Refuge / Corrie Folxom-O'Keefe, Audubon



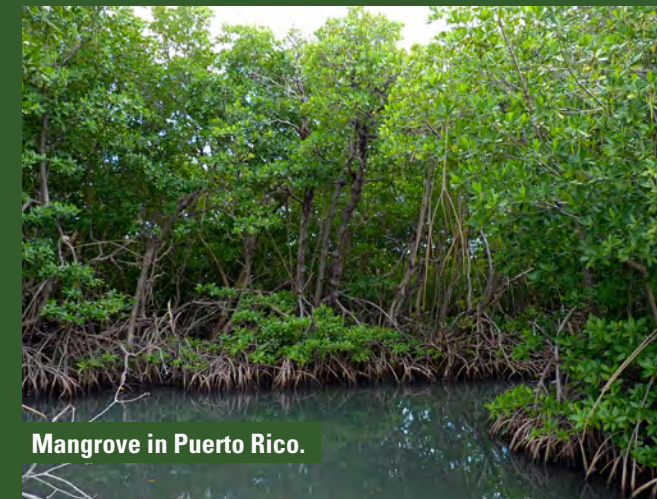
## Community Conservation Puerto Rico



Site visit at Ciénaga las Cucharillas Nature Reserve.



Volunteers monitoring a planted cóbana negra.



Mangrove in Puerto Rico.



Cóbana negra flowers.

The Ciénaga las Cucharillas Nature Reserve is one of the largest natural spaces in the San Juan metropolitan area. The Reserve supports several types of mangroves and other wetland habitats that provide flood control and water filtration for the surrounding communities. These habitats also support an impressive biodiversity despite its location in an urban landscape. The Reserve provides critical habitat for migratory, endangered, and endemic species, such as the snowy egret, hawksbill sea turtle, Caribbean coot, and mangrove cuckoo.

In 2021, the Coastal Program worked with Caras of the Americas and Corredor del Yaguazo, Inc. to restore four acres of wetland on the Reserve by planting more than 800 native trees, including the

federally threatened cóbana negra. Associated with black mangroves, the cóbana negra is an evergreen tree that occurs in brackish, seasonally flooded wetlands.

Community involvement was key to the implementation of the project, with around 2,000 local volunteers participating in the plantings and installing informational signs. In 2022, volunteers conducted project monitoring to evaluate recovery efforts for the cóbana negra and other conservation outcomes.

(Top left and clockwise) Site visit at Ciénaga las Cucharillas Nature Reserve, Puerto Rico / José Martínez, USFWS, Volunteers monitoring a planted cóbana negra / Caras of the Americas, Cóbana negra flower / Carlos Pacheco, USFWS, and Mangrove, Puerto Rico / Damian Entwistle (Flickr)





Learn more about the Coastal Program at  
<https://www.fws.gov/program/coastal>



**Published: March 2023**

*(Front Cover) Salinas River National Wildlife Refuge, California / USFWS  
(Back Cover) Whooping crane / USFWS*