

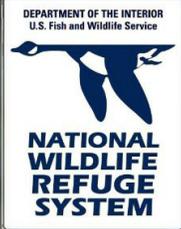


U.S. Fish and Wildlife Service

2019 Coastal Program Accomplishment Report



Note from the Refuge Chief



Cynthia Martinez at Hakalau Forest National Wildlife Refuge, Hawaii / USFWS

Growing up in the landlocked state of New Mexico, the first time I saw the ocean was when I was in college. It was the first of many trips that would be the foundation for my appreciation for the people, wildlife, and habitats along our coasts.

During my career with the U.S. Fish and Wildlife Service (Service), which began as an assistant contaminants specialist and eventually led to Chief of the National Wildlife Refuge System, I have been fortunate to experience many coastal National Wildlife Refuges from Palmyra Atoll to Merritt Island National Wildlife Refuges.

At the Service, we have the privilege of managing more than 855 million acres of terrestrial and marine habitat, including more than 180 coastal refuges. As impressive as these numbers may be, we rely on the help

of many others to insure an environmental legacy for future generations of people.

The Coastal Program is an excellent example of how the Service works with others by providing invaluable technical and financial assistance to partners and practitioners to ensure that fish, wildlife, and people continue to have places to thrive along the coasts of our Nation and territories.

Every project reflects the dedication and hard work of our employees and partners. I am proud to present highlights from the stellar 2019 accomplishments of the Coastal Program.

Cynthia Martinez
Chief of the National Wildlife Refuge System

Benefits of Coastal Ecosystems

Coastal Conservation Key to a Thriving Economy and a Healthy Environment

America's coastal watersheds are economically significant and ecologically complex. Management of our coasts requires a thoughtful balance of working landscapes and habitat conservation.

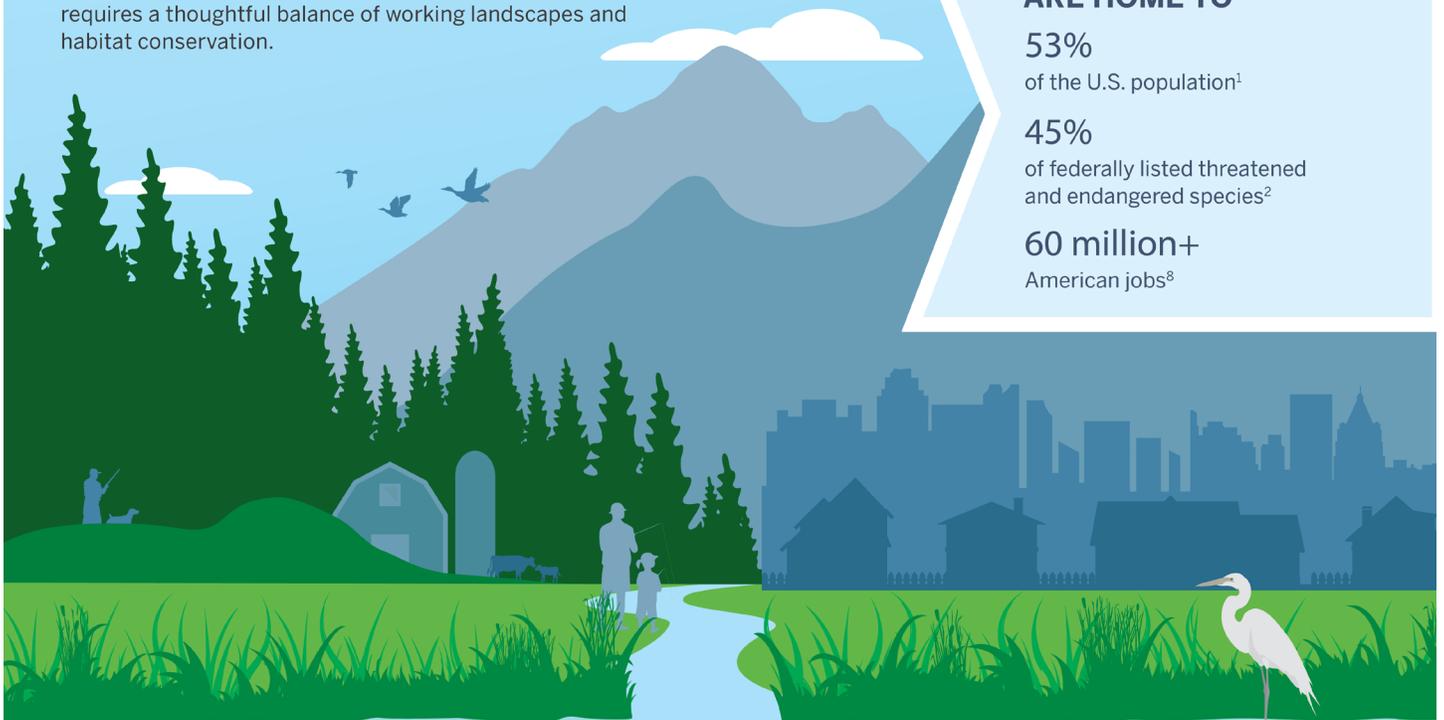


COASTAL WATERSHEDS ARE HOME TO

53%
of the U.S. population¹

45%
of federally listed threatened
and endangered species²

60 million+
American jobs³



U.S. COASTAL HABITATS GENERATE

\$23.2 billion

in storm protection services per year,
by mitigating the impact of hurricanes.³

\$43.6 billion+

in recreational fishing and migratory
bird hunting.⁴

\$44 billion

in travel: Americans take more than
900 million trips to coastal areas annually.⁵

U.S. COASTAL HABITATS SUPPORT

40%

of the U.S. Fish and
Wildlife Service's
National Wildlife
Refuges.

85%

of waterfowl and
other migratory
birds.²

75%+

of the commercial
harvest of fish and
shellfish.⁶

90%+

of the nation's
recreational harvest
of fish and shellfish.⁶

The Coastal Program

A CONSERVATION LEADER

The Coastal Program works with communities to voluntarily restore and protect habitats that benefit fish, wildlife, and people. We also develop resources that help land managers and practitioners to better deliver habitat conservation. By working together, we can 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

from field offices located around the Nation to improve and protect habitat on both public and private lands, from the headwaters to the ocean, to deliver landscape conservation and maintain habitat connectivity and continuity.

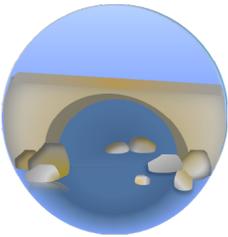
Learn more about the Coastal Program at [fws.gov/coastal/](https://www.fws.gov/coastal/).

U.S. Fish and Wildlife Service Priorities



Species Recovery

Conserving habitats that recover and sustain federal trust species.



Infrastructure & Habitat Management

Protecting infrastructure and supporting habitat management on National Wildlife Refuges and other lands.



Recreation & Access

Enhancing the visitor experience at National Wildlife Refuges and building a legacy of stewardship by expanding public access and recreation on public and other lands.



Outreach & Urban Conservation

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

2019 Project Statistics



186 Projects



17 States
and territories



Over
\$2.4 Million
in Coastal Program contributions



**83 Project
partners**

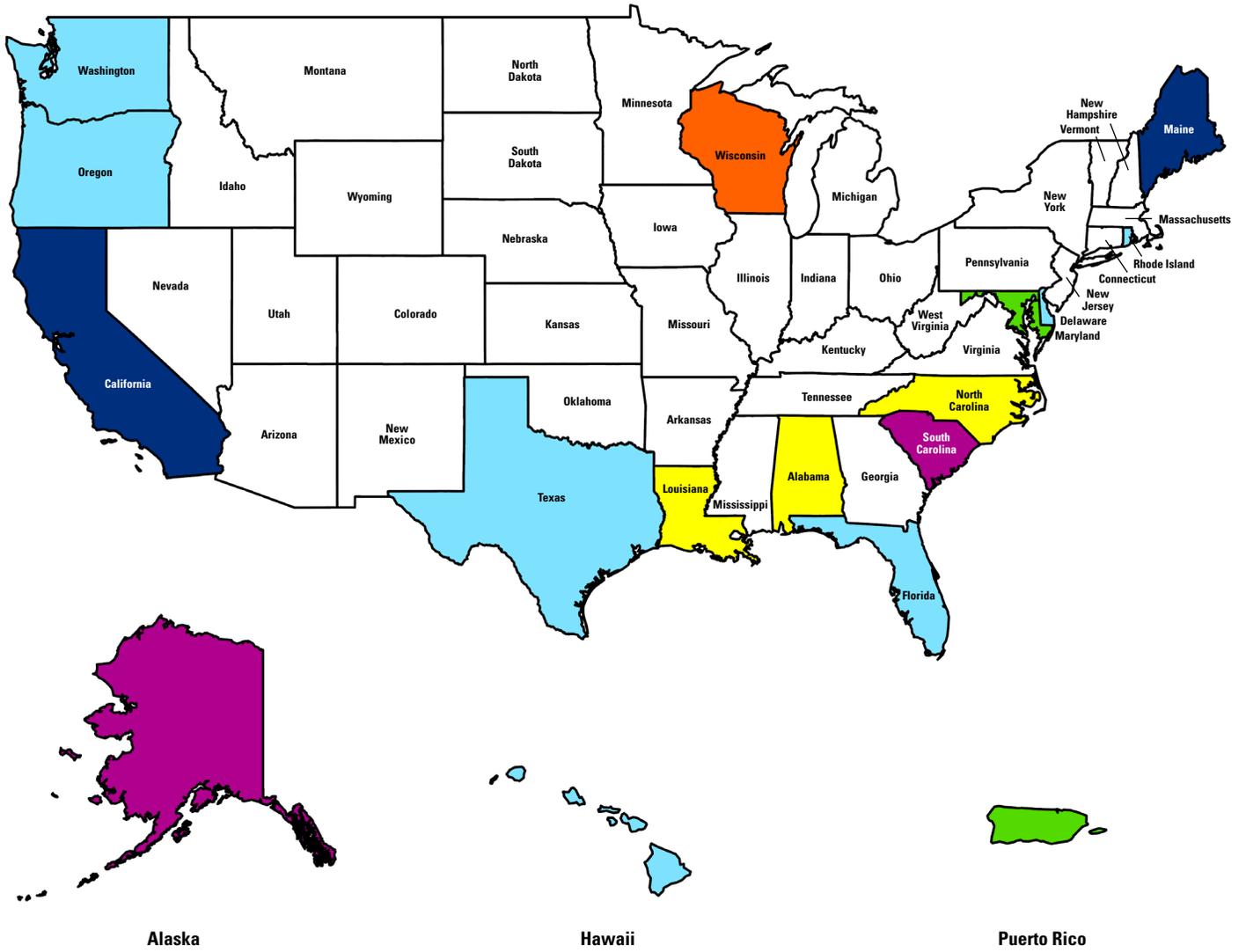


Over
16,400 acres
restored

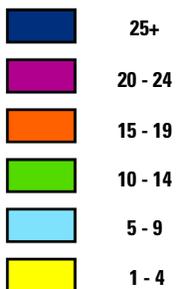
**Project
leveraging**

\$1 to \$22
Coastal Program to
Partner contributions

2019 Projects Map



Number of Projects





McDaniel Slough, California

Breaching a levee to restore tidal flow and other natural processes to over 200 acres of tidal marsh that benefits the federally endangered Tidewater goby and federally threatened Coho and Chinook salmon. Subsequent monitoring found juvenile salmon in the creeks upstream of the marsh.

City of Arcata

Species Recovery

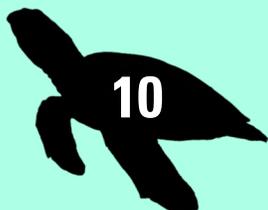
**Number of projects
for most frequently benefited
species:**



Atlantic sturgeon



Roseate tern



Hawksbill sea turtle



Over
**50 miles of
streams
restored or
reopened**



Over
**76,400 acres
voluntarily
protected**

A Beach for Toads and People

Puerto Rico



Puerto Rican crested toad / Jan Zegarra, USFWS

A partnership among the Coastal Program, Protectores de Cuencas, Inc., Association of Zoos and Aquariums, Department of Environmental Resources, and wetland experts improved habitat for the federally threatened Puerto Rican crested toad while improving public access to Tamarindo Beach.

Located on Culebra Island, Tamarindo Beach is one of the most popular snorkeling and diving destinations in Puerto Rico. It is also an important breeding habitat for

the only wild population of Puerto Rican crested toad, which breeds in the adjacent lagoons.

Historically, public access conflicted with these breeding areas. In response, the partnership constructed a permeable parking area and walkways to the beach that were located away from the toad's habitat. In addition, the partnership planted over 150 native trees to address beach erosion and constructed two artificial ponds as additional breeding sites for the toads.

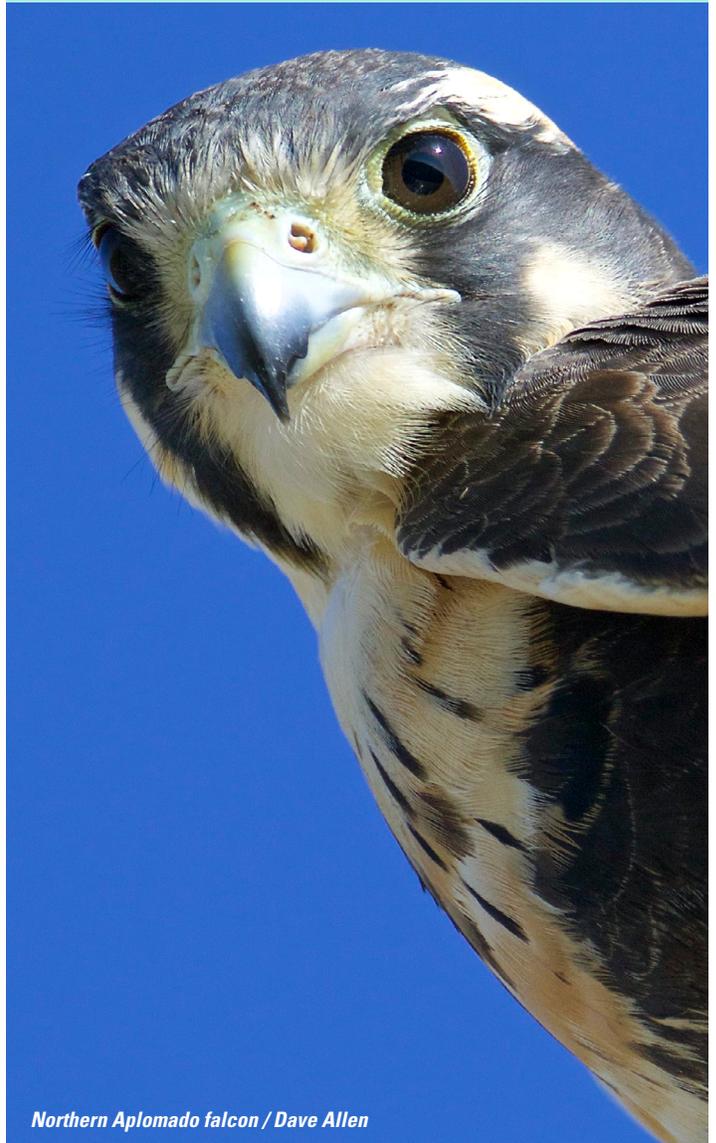
Saving Sea Turtles Hawaii



Green sea turtle / Julie Suess Photography

The Coastal Program, National Oceanic and Atmospheric Administration, and Malama na Honu are working with local communities to document and monitor nesting and basking sites used by Hawaiian green sea turtles on the island of Oahu. The data collected contributes to our knowledge of sea turtle behavior and ecology and informs our recovery actions for this federally threatened sea turtle on the Hawaiian Islands.

A Future for a Falcon Texas



Northern Aplomado falcon / Dave Allen

The Coastal Program is working with the National Park Service, University of North Texas, Parks and Wildlife Department, The Peregrine Fund, and others to evaluate habitat requirements necessary to recover the federally endangered northern Aplomado falcon. The partnership applied for and was awarded \$175,000 by the U.S. Fish and Wildlife Service's (Service) Recovery Challenge grant and received additional Service funding from the Coastal Program and Ecological Services totaling \$60,000 to implement recovery actions.

Pond Lily Nature Preserve, Connecticut

Former location of the Pond Lily Dam. Its removal restored fish passage and reduced flooding in the adjacent community. Watch a video about this project at bit.ly/2YoHIR6.

Firefly Imageworks, Inc.

Prescribed
fire projects:



8
over 4,400
acres

Fish passage
projects:



1,858 acres
treated for invasive species





Infrastructure & Habitat Management

Restoring Fish Passage Alaska



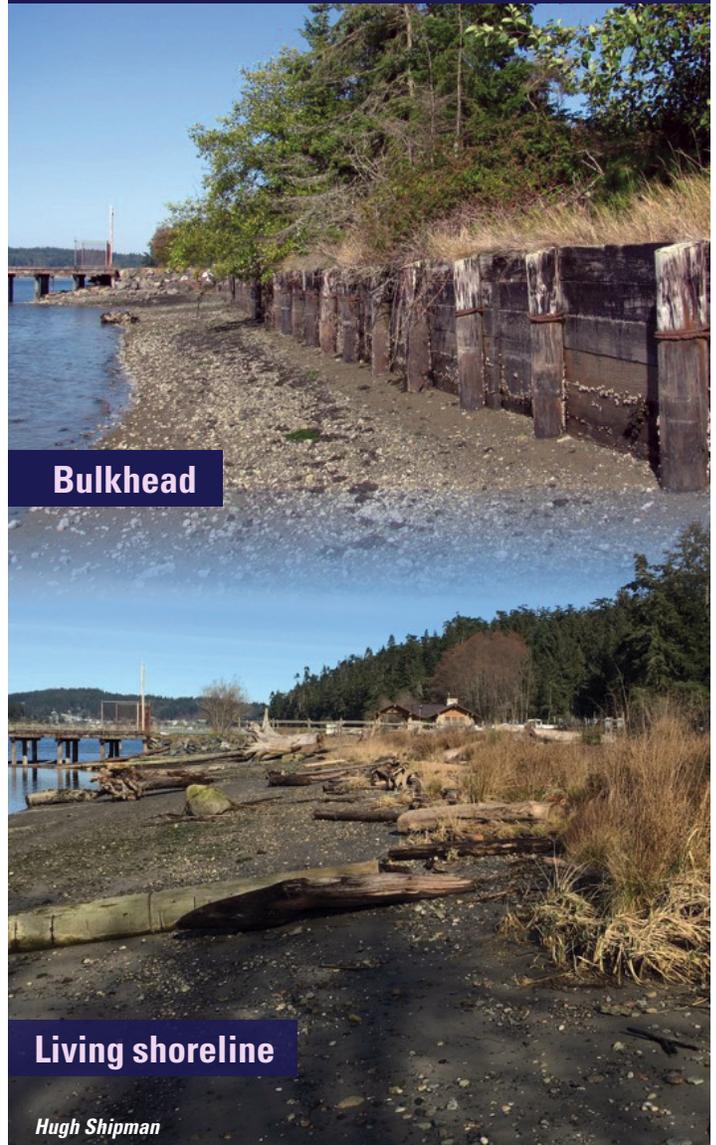
Dolly Varden char and Coho and Sockeye salmon

Jeff Anderson

Commercial and recreational fishing provide significant economic benefits for Alaskan communities and supplies more than half of all the U.S. seafood harvest*. Working with the Department of Natural Resources and Southeast Alaska Watershed Coalition, the Coastal Program removed two fish passage barriers, two drainage structures, and two miles of decommissioned road that opened over half a mile of stream habitat for salmon spawning. The project benefits Dolly Varden char and Coho salmon and is part of a larger restoration effort to improve fish habitat in the Pat Creek watershed.

*akrdc.org/fisheries

Streamlining Permits Washington



Bulkhead

Living shoreline

Hugh Shipman

Through the Puget Sound Federal Task Force, the Coastal Program is working with the U.S. Army Corps of Engineers and others to streamline the regulatory permitting of living shoreline projects. The Task Force works to both reduce the use of hardened shoreline protection (e.g., bulkheads and riprap) and promote more natural and resilient techniques (e.g., marshes and woody debris). The Task Force also provides landowners with living shoreline design standards and the tools to assess their shoreline protection needs.

Supporting Refuges

South Carolina



Coastal Program staff in South Carolina received their Wildland Fire Incident Qualifications. This qualification allowed them to assist with two prescribed burns on the Ernest F. Hollings ACE Basin National Wildlife Refuge.

ACE stands for the Ashepoo, Combahee, and Edisto Rivers, which form parts of the refuge boundary and flow into the largest undeveloped estuary along the Atlantic Coast. The prescribed fires reduced the wildfire threat to the Refuge and surrounding community and improved 400 acres of habitat for the federally threatened Wood stork and other migratory birds.

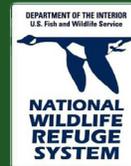
After prescribed fire

**Publicly
accessible:**



**Over
19,800
acres**

**Projects on
Refuges:**



**17
over 15,900
acres**

**Projects in
National Parks:**

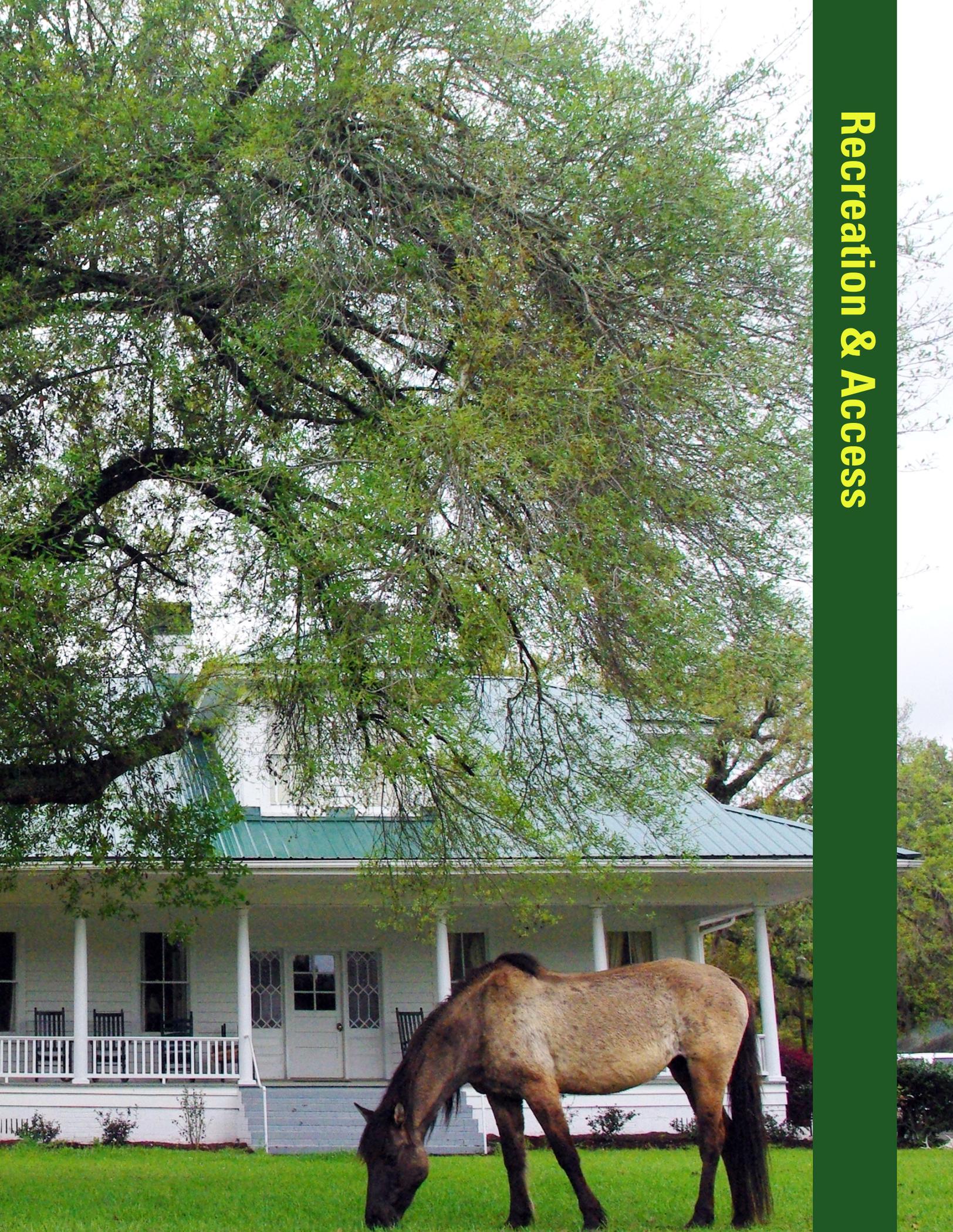


**9
over 25,000
acres**

Oakland Club, South Carolina

The permanent protection of the 11,000-acre Oakland Club preserves a stunning array of habitats and a hunting club that provides some of the best Bobwhite quail hunting in the region. Read more about this project at bit.ly/2Nbp1Fz.

Oakland Club Office / Jessica Collier, USFWS



Recreation & Access

Getting Dirty Maine



The Coastal Program worked with the City of Portland, Maine Audubon, teachers, and students to restore native pollinator habitat in an urban public greenway at Deering Oak Park. The students planted over 200 native plants and installed a new trail and interpretive signs. In the classroom, students learned about native plants and animals, grew native plants, and produced animated videos about native plants and their benefits to pollinators. In addition to creating a community amenity, the restored greenway will serve as a permanent outdoor classroom. Read more about this project at bit.ly/3aGao8x.

Volunteers (Top) / Kristy Underwood, USFWS and Volunteers closeup (Bottom) / Courtesy of The Forecaster

Cleaning Up Wisconsin



Chequamegon Bay is one of the most ecologically significant regions in the Lake Superior watershed. However, excessive sedimentation is negatively affecting this region by decreasing the quality of fish habitat and recreational opportunities, as well as increasing the costs of harbor maintenance and drinking water.

North Fish Creek was identified as a significant contributor of sediment to the Bay. The Coastal Program, Wisconsin Department of Natural Resources, Bayfield County, Northland College, and a private landowner restored eroding stream banks along the creek using large wood and tree plantings, with funding from the Great Lakes Restoration Initiative.

Project partners / Matt Hudson, Northland College

For the Birds Texas



Kacy Ray, American Bird Conservancy

The Coastal Program and American Bird Conservancy are working with local resource managers to conserve globally important shorebird habitat along the upper Texas coast. These areas also support diverse recreational activities including beach visitation, fishing, and vehicle traffic. The partnership is working to balance these many uses by protecting and monitoring nesting sites and through public outreach. These conservation efforts focus on the Wilson's plover, Least tern, and Snowy plover; however, many other bird species also benefit.



Snowy plover



**Outdoor classrooms
and youth activities:**

**Over
20**



**Projects with
volunteer events:**



**At least
7**

Kahuku Point, Hawaii

Local families removed invasive plants and planted native vegetation at a volunteer event organized by the North Shore Community Land Trust, Turtle Bay Resort, and the Coastal Program. This work complements conservation efforts at the nearby James Campbell National Wildlife Refuge and benefits the Laysan albatross and several federally endangered species.

Alice Terry



Outreach & Urban Conservation

Conservation Goes Back to School

California



Constructed wetland

Pennington Creek is home to the federally threatened steelhead trout and California red-legged frog. The Creek is home to many fish and wildlife species and supports year-round recreation and vibrant coastal communities. It is also a major tributary to Morro Bay - an estuary of national significance. Maintaining the quality of the Creek's cold clear water is critical to the recovery of federally threatened species and the health of the Bay.

At an outdoor school along Pennington Creek, the Coastal Program worked with partners to reduce water pollution and increase water supplies and groundwater infiltration. Working with the California Conservation Corps, youth volunteers



Morro Bay

built bioswales and detention basins to collect and filter pollutants from rain and stormwater. The volunteers also created a wetland with native plants and trees to improve wildlife habitat. This project is part of a larger effort to implement best management practices (e.g., stormwater management and native plantings) in the community to improve water conservation.

The school is using the project site as part of an outdoor educational laboratory that teaches students and visitors about water conservation and the restoration techniques. The students are also conducting long-term water quality monitoring to evaluate the effectiveness of these restoration efforts.

Looking for Monarchs

Delaware



The Coastal Program and Abbotts Mill Nature Center held a Monarch butterfly monitoring workshop at Bombay Hook National Wildlife Refuge. Community volunteers were trained to collect data on Monarch butterfly larvae and milkweed plants that will inform decisions made by public officials to prevent the decline of monarchs. Using a standardized protocol,

volunteers regularly monitor Department of Transportation right-of-ways. The data is entered into a national database, which helps scientist tracks monarch populations and habitat changes. Similar monitoring efforts are occurring in over 40 U.S. states, 3 Canadian provinces, and the Mexican state of Jalisco.



**Learn more about the
Coastal Program at
fws.gov/coastal**



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*Coastal Watershed Illustration (Front Cover) / Virginia Greene Illustration
Blackbeard Island National Wildlife Refuge, Georgia (Back Cover) / Becky Skiba, USFWS*