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#### **ABOUT NEWF**

The National Fish and Wildlife Foundation (NFWF) protects and restores our nation's fish and wildlife and their habitats. Created by Congress in 1984, NFWF directs public conservation dollars to the most pressing environmental needs and matches those investments with private funds. Learn more at www.nfwf.org

#### NATIONAL HEADQUARTERS

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Coral reef. Hawaii

#### **OVERVIEW**

In May 2018, The National Fish and Wildlife Foundation (NFWF) established the National Coastal Resilience Fund with the goal of restoring and enhancing natural resource infrastructure to reduce the vulnerability of coastal communities to storms, floods and other detrimental natural events. NFWF, the National Oceanic and Atmospheric Administration, Shell Oil Company and TransRe announced an inaugural round of funding for the National Coastal Resilience Fund and awarded thirty-five new grants totaling \$28.93 million, leveraging \$38.29 million in match from grantees, generating a total conservation impact of more than \$67.22 million.

Investments through this national program will advance regionally identified priorities to enhance fish and wildlife habitats and improve the resilience of coastal communities. Building on significant coordination and planning that has already been done in many of the nation's coastal communities and recognizing the need for action, the fund focuses on advancing implementation of projects that will have greatest benefit to both human community resilience and fish and wildlife benefit.

(continued)



#### PROJECT IMPLEMENTATION:

Projects in this category have been prioritized through a formal planning process that addresses coastal resilience and have completed all necessary designs and engineering plans for implementation. Eligible projects include ecosystem restoration projects and the construction of natural, nature-based and green-gray infrastructure, where tangible community resilience and conservation outcomes can be measured. Nineteen projects representing a total recommended award amount of \$26.14 million will be further leveraged by \$33.91 million in grantee matching contributions for a total impact of \$60.05 million.

### Restore New England's Largest Saltmarsh for Resilience and Ecological Enhancement (MA)

Total Amount:	.\$2,529,929
Matching Funds:	. \$1,305,943
Grant Amount:	. \$1,223,986
Grantee: National Wildlife Federation	

Build and enhance resilience of the 25,000-acre Great Marsh coastal habitat to help protect critical community infrastructure. Project will improve drainage of marsh pools, restore native vegetation, remove invasive species, and plant eelgrass to reduce erosion and improve channel stabilization.

### John Heinz National Wildlife Refuge Tidal Marsh Restoration to Restore Hydrological Function (PA)

Total Amount:	\$567,566
Matching Funds:	
Grant Amount:	\$283,783
Grantee: Ducks Unlimited	

Restore 180 acres of tidal marsh habitat through the installation of a new water control structure and pump system on the U.S. Fish and Wildlife Service wetland impoundment at John Heinz National Wildlife Refuge in Pennsylvania. Project will restore tidal flows and improve management capabilities within the impounded wetland for flood control and benefits to wetland-dependent birds and wildlife.

### South Wilmington Freshwater Tidal Wetland Habitat Restoration for Flood Prevention (DE)

Total Amount: \$1	1,944,959
Matching Funds: \$	8,944,987
Grant Amount:	52,999,972
Grantee: City of Wilmington, Delaware	

Restore 14 acres of degraded wetland to a high functioning freshwater tidal wetland habitat in South Wilmington, Delaware. Project will reduce flooding, enhance resiliency, restore freshwater tidal exchange, filter polluted runoff, improve soil and water quality, and restore habitat for a variety of fish and wetland and aquatic wildlife.

### Building Adaptive Shorelines and Resilient Communities in the Lower James River (VA)

 Grantee: James River Association
 \$1,112,424

 Grant Amount:
 \$1,097,815

 Total Amount:
 \$2,210,239

Implement three living shoreline management and green infrastructure projects on public land within the Hampton, Virginia to address community and habitat vulnerability to sea level rise. Project will strengthen natural systems to protect the Hampton Roads region from the impacts of flooding and storm events and enable communities to recover more quickly.

#### Lindenwood-Barraud Park Community Resilience Living Shoreline (VA)

 Grantee: City of Norfolk

 Grant Amount:
 \$1,252,500

 Matching Funds:
 \$1,211,180

 Total Amount:
 \$2,463,680

Construct a hybrid living shoreline and riparian buffer expansion in Norfolk, Virginia along the Lafayette River. Project will improve the shoreline along a lower-income neighborhood and will support storm resilience, water quality, and habitat improvement goals.

#### Living Shorelines for North Carolina Coastal Communities

 Grantee: North Carolina Coastal Federation

 Grant Amount:
 \$1,100,000

 Matching Funds:
 \$947,061

 Total Amount:
 \$2,047,061

Construct living shorelines at two coastal locations to protect the entrance channels of harbors and historic shorelines of coastal North Carolina. Project will naturally stabilize and protect the eroding shorelines to maintain existing navigation channels, prevent flooding and build fisheries habitats.

## Habitat Restoration of Crab Bank Island Seabird Sanctuary to Protect Coastal Shorelines (SC)

 Grantee: Audubon South Carolina
 \$700,000

 Grant Amount:
 \$1,751,226

 Total Amount:
 \$2,451,226

Restore Crab Bank Seabird Sanctuary, a critical nesting island in Charleston Harbor, South Carolina. Project will protect 1.5 miles of coastal property and provide 28 acres of suitable nesting habitat for the brown pelican, royal tern, black skimmer, American oystercatcher and other seabird and shorebird species.





Coral, Florida Keys

# Maintain Coastal Protection of Florida's Reefs through Restoration of Resilient Corals

 Grantee: Mote Marine Laboratory
 \$1,499,462

 Grant Amount:
 \$1,500,000

 Total Amount:
 \$2,999,462

Restore more than 130 acres of coral reef to strengthen coastal resiliency to storm enhanced waves and expand essential fisheries habitat for sustainable commercial and recreational use. Project will recover threatened and endangered coral species in the Florida Keys through the culture and out-planting of disease and temperature resilient corals.

## Strengthen Resilience from Extreme Weather through Ecological Restoration of Sand Dunes (PR)

Total Amount:\$1,116,540
Matching Funds:
Grant Amount:
Grantee: University of Puerto Rico at Aguadilla

Restore high-priority areas of storm-damaged coastal dunes along the north and west coasts of Puerto Rico. Project will use innovative sand-trapping devices, exclusion fences and wooden boardwalks to promote the accumulation of sand and an increase in the vegetation cover on breached and eroded sites.

# Reforestation and Habitat Enhancement of Hacienda La Esperanza Nature Reserve (PR)

 Grantee: Para la Naturaleza
 \$652,444

 Grant Amount:
 \$652,444

 Matching Funds:
 \$652,444

 Total Amount:
 \$1,304,888

Strengthen the natural resilience of Hacienda La Esperanza Nature Reserve and neighboring communities in Puerto Rico to protect from future storm and flooding events while enhancing fish and wildlife habitat. Project will engage in diverse forest restoration activities to promote the enhancement of floodplains, wetlands and coastal forests.

### Helen Wood Park Shoreline Protection and Habitat Restoration (AL)

Total Amount:\$1	,948,731
Matching Funds:	\$950,366
Grant Amount:	\$998,365
Grantee: The Nature Conservancy	

Protect a half mile of shoreline with 10 acres of intertidal nearshore breakwater habitat and enhance 12 acres of intertidal marsh and seagrass beds in Alabama. Project will increase resilience to a local waterfront community and infrastructure frequently impacted by storms and threatened by sea level rise.



### Terrebonne Basin Coastal Wetland Habitat Restoration and Community Resiliency (LA)

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Total Amount:	\$3,410,000
Matching Funds:	\$1,705,000
Grant Amount:	\$1,705,000
Grantee: Ducks Unlimited	

Restore 575 acres of coastal wetlands in the Terrebonne Basin, Louisiana. Project will prevent additional wetland erosion and provide storm surge protection for the Golden Meadow, Pointe aux Chene, and Isle de Jean Charles communities.

### Dollar Bay-Moses Lake Wetlands Restoration and Protection to Reduce Erosion (TX)

Total Amount:\$2,050,000	
Matching Funds:	
Grant Amount:	
Grantee: Galveston Bay Foundation	

Restore degraded wetlands and protect vulnerable shorelines and communities within the Dollar Bay-Moses Lake complex in Galveston Bay, Texas. Project will restore 72 acres of intertidal marsh habitat to address the loss of habitat in Galveston Bay due to historical land surface subsidence and shoreline erosion.

#### **Restore Ecosystem Function and**

### Community Resiliency in the Salt River Watershed (CA)

Grantee: Humboldt County Resource Conservatio	n District	
Grant Amount:	\$1,656,40	)5
Matching Funds:	\$2,367,05	52
Total Amount:	\$4,023,45	57

Restore 7 miles of river channel and associated floodplains, wetlands, and riparian habitats in the upper reach of the Salt River in California. Project will provide area landowners with drainage to reduce flood impacts and create enhanced fish habitat and fish passage to the upper watershed.

### Floodplain Reconnection to Restore Wild Salmon Habitat and Enhance Community Resilience (OR)

Grantee: Sandy River Basin Watershed Council
Grant Amount:
Matching Funds: \$1,057,300
Total Amount:\$2,017,960

Restore 418 acres along 1 mile of floodplain and enhance instream habitat to bolster resilience from intensification of storms and streambank erosion. Project will restore conditions for threatened wild salmon and steelhead while increasing resiliency of surrounding community infrastructure.

#### Leque Island Estuarine Marsh Habitat Restoration and Flood Protection (WA)

Total Amount:\$1,800,00	
Matching Funds:	0
Grant Amount:	0
Grantee: Washington Department of Fish and Wildlife	

Remove a 2.4-mile long perimeter levee to restore tidal and riverine influence and improve coastal resiliency for Stanwood, Washington. Project will restore 250 acres of estuarine marsh and estuary rearing habitat for endangered chinook juvenile salmonid populations of the Stillaguamish and Skagit rivers while providing flood protecting to the surrounding community.

### Managed Community Retreat and Ecological Restoration of Coastal Wetlands (AK)

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Grantee: Alaska Native Tribal Health Consortium	
Grant Amount:	\$2,732,000
Matching Funds:	\$2,632,000
Total Amount:	55,364,000

Decommission 12 houses and all associated infrastructure to restore 3 acres of coastal wetland habitat in Newtok, Alaska. Project will prevent contamination of the Yukon Delta National Wildlife Refuge and build twelve new houses in the community relocation site of Mertarvik.

## Wetlands Restoration for Ecosystem and Community Resilience in He'eia, Oahu (HI)

Grantee: The Nature Conservancy	
Grant Amount:	\$768,454
Matching Funds:	\$768,912
Total Amount:	.\$1,537,366

Establish a natural constructed wetlands system in the He'eia wetlands to protect and enhance the ecosystem and community of Kane'ohe Bay, Hawaii. Project will minimize flood events, reduce sediment and nutrient run-off, and create habitat and fish passage for marine and estuarine species.

## Enhance Coastal Protection with Resilient Coral Reefs along Oahu (HI)

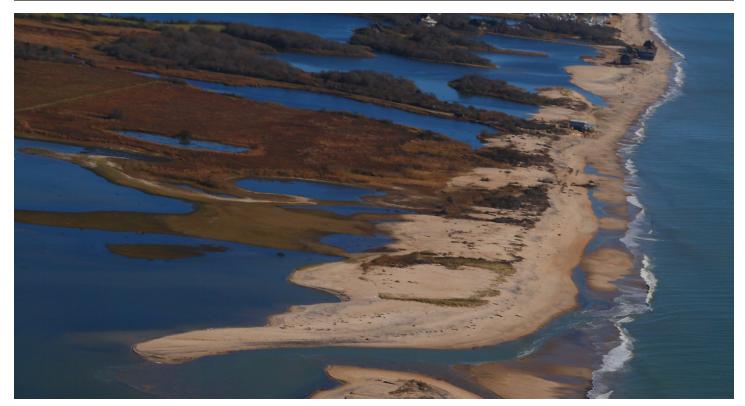
Grantee: University of Hawaii, Hawaii Institute of Marine Biology

Total Amount:	
Matching Funds:	\$1.078.728
Grant Amount:	\$1,056,114

Identify thermally tolerant coral stocks for restoration of reefs in Oahu to enhance shoreline protection from wave and storm energy. Project will propagate resilient corals in nurseries and partner in the out-planting at three sites to test the efficacy of this strategy and evaluate best practices to increase restoration efforts across the state.







Trustom Pond, Rhode Island, after Hurricane Sandy in 2012 | Credit: USFWS

### Reduce Storm Related Impacts for Lake Superior Coastal Communities through Habitat Restoration (MI)

Total Amount:\$5,550,0	000
Matching Funds:	000
Grant Amount:	000
Grantee: Superior watersned Partnersnip	

Implement green-gray infrastructure to restore and strengthen natural systems along the Lake Superior shoreline in Michigan. Project will protect public infrastructure, restore public access to the shoreline, and create contiguous coastal habitat for resident and migratory wildlife including birds, pollinators, native fish and mammals.

#### **PROJECT ENGINEERING AND DESIGN:**

Engineering and design grants are short-term – less than 18 months – projects to complete assessment, planning, engineering and design necessary to prepare a project for implementation. The following projects will advance a pipeline of shovel-ready projects in areas likely to have the greatest benefit for communities and wildlife. In this category, fifteen projects representing a total recommended award amount of \$3.31 million will be further leveraged by \$4.27 million in grantee matching contributions for a total impact of \$7.58 million.

# Back River Creek and Saltmarsh Restoration for Coastal Infrastructure Resilience (ME)

Grantee: Kennebec Estuary Land Trust
Grant Amount: \$250,000
Matching Funds: \$300,000
Total Amount: \$550,000

Develop engineering designs to restore habitat and hydrological function at Back River Creek and Pleasant Cove in Maine while providing protection to road and drinking water infrastructure from future flooding events. Project will propose improvements to infrastructure that will return full tidal exchange to upstream wetland, restoring 140 acres of saltmarsh and fish passage, and increasing resilience of critical infrastructure including a water main and coastal US Route 1.

# Tidal Crossing Replacements for a Resilient Coastal New Hampshire

Total Amount:	\$272.484
Matching Funds:	\$136,242
Grant Amount:	\$136,242
Grantee: The Nature Conservancy	

Complete full engineering and design plans for four to five high-priority tidal crossings across New Hampshire's coastal zone. Project will work closely with local partners and coastal resources to design projects that will enhance resilience for coastal communities and ecosystems.





## Rhode Island Shoreline Adaptation and Habitat Enhancement Project Inventory

Grantee: RI Coastal Resources Management Counci	l
Grant Amount:	\$280,140
Matching Funds:	\$347,028
Total Amount:	\$627,168

Create a complete inventory of potential shoreline adaptation projects within areas of Rhode Island identified as vulnerable to coastal erosion, flooding and storm surge. Project will complete designs and permit applications for a subset of projects and provide guidance for municipalities on shoreline adaptation implementation.

### Managed Retreat and Ecological Restoration of Southern Mastic Beach (NY)

Grantee: Town of Brookhaven
Grant Amount:
Matching Funds:
Total Amount:

Develop design plans for the restoration of coastal saltmarsh and scrub shrub habitat along southern Mastic Beach in New York. Project will prepare for restoration of a reclaimed floodplain to a healthy native salt marsh and maritime scrub-shrub/forest community to provide a buffer from future flooding for inland residential communities.

### Floodplain Habitat Design to Establish Green Infrastructure Practices along Woodbridge River (NI)

Grantee: Rutgers, The State University of New Jerse	ey
Grant Amount:	\$175,065
Matching Funds:	\$175,096
Total Amount:	\$350,161

Produce a floodplain restoration design and green infrastructure interventions that integrate ecological improvements to increase ecosystem function and reduce flood risk. Project will maximize resilience of communities within the Woodbridge River floodplain and improve habitat for wetland dependent species, including fish, breeding and migratory birds, and reptiles and amphibians.

### Planning Ecologically Beneficial And Resilient Infrastructure at the Mouth of the Maurice River (NJ)

Gı	antee: American Littoral Society	
Gı	ant Amount:	 . \$250,000
M	atching Funds:	 . \$250,000
	otal Amount:	
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Design a hybrid living shoreline breakwater to minimize further erosion of a peninsula on the west side of the Maurice River and plan the protection and restoration of a second vulnerable location on the east side of the river. Project will develop engineered designs, construction methods, permits and cost estimates in preparation for wetland restoration construction.



Eastern Shore, Virginia

# Eastern Shore Barrier Island Stabilization and Marsh Construction Engineering Plans (VA)

Grantee: College of William and Mary, Virginia Institute of Marine Science

Grant Amount:	\$249,707
Matching Funds:	\$250,578
Total Amount:	\$500,285

Develop an engineering design plan for a 450-acre marsh restoration and expansion project along southern Cedar Island in Virginia and provide direct outreach to resiliency planning organizations and local citizens on the Eastern Shore. Project will prepare plans to enhance the resiliency of the barrier islands, back barrier marshes and lagoons, and mainland communities in the rural Eastern Shore.

## McCoys Creek Restoration Plan for Improved Wildlife Habitat and Flood Management (FL)

 Matching Funds:
 \$425,904

 Total Amount:
 \$675,904

Develop a restoration plan for McCoys Creek in Jacksonville, Florida to improve the waterway's health and water quality, improve flood conditions for residents and businesses, and create habitat for wildlife. Project will establish natural



channel design and bioengineering treatments for restoring the creek and identify locations for recreational amenities and natural stormwater remedies.

### Dauphin Island Causeway Restoration Engineering and Design (AL)

Grantee: Marine Environmental Sciences Consortium /

Dauphin Island Sea Lab

 Grant Amount:
 \$250,000

 Matching Funds:
 \$250,000

 Total Amount:
 \$500,000

Investigate feasibility and recommend alternatives of sustainable shoreline protection measures providing critical edge habitat adjacent to Alabama's most productive and active oyster harvest area. Project will develop engineering plans and permit documents for restoration, including wave attenuation and marsh creation to bolster the resilience of the Dauphin Island community and fishery resources.

## Bucktown Marsh Restoration and Living Shoreline Design (LA)

Grantee: Jefferson Parish Department of Environmental Affairs
Grant Amount: \$250,000
Matching Funds: \$150,000
Total Amount: \$400,000

Prepare design and engineering plans to improve resiliency of the Jefferson Parish levee system in Louisiana and educate and engage urban communities. Project will lead to the restoration of indigenous marshland and ecological features along a 1-mile stretch of lakefront between Bonnabel Park and Boat Launch and Bucktown Harbor.

#### Los Cerritos Wetlands Flood Control Planning and Restoration (CA)

 Grantee: Los Cerritos Wetlands Authority

 Grant Amount:
 \$249,500

 Matching Funds:
 \$850,000

 Total Amount:
 \$1,099,500

Obtain U.S. Army Corps of Engineers permitting and complete design plans to restore 500 acres of San Gabriel River floodplain and 500 acres of Los Cerritos Wetlands estuarine habitat. Project will develop a restoration plan to breach or remove the existing flood control levee along the San Gabriel River to introduce tidal circulation into the restored wetland.

#### Gravel Beach and Berm Design for Shorebird Habitat, Erosion Control and Flood Protection (CA)

Grantee: California State Coastal Conservancy
Grant Amount:
Matching Funds:
Total Amount:\$475,405
Conduct design, cost estimates, and pilot documentation

for a 2-mile gravel beach and berm shoreline protection feature and shorebird habitat at Eden Landing Ecological Reserve in South San Francisco Bay, California. Project will design localized shorebird nesting habitat and erosion control at the bay's edge and create a new piece of regional flood protection infrastructure for wetlands restoration for habitat benefit, flood protection, and public access across 1,300 acres.

## Tillamook River Engineering and Design for Community Protection and Wetland Recovery (OR)

Grantee: Tillamook Estuaries Partnership
Grant Amount: \$97,488
Matching Funds: \$97,500
Total Amount: \$194,988

Plan an emergency ingress and egress route and prepare to restore 73 acres of coastal wetland habitat in the Tillamook Bay estuary of Oregon. Project will complete the designs for restoration of critical habitat for recovery of the threatened Oregon Coast coho salmon and 17 other federal or state species of concern while maintaining a critical evacuation route for the community.

### Lower Big Quilcene River Restoration Design to Reduce Flood Risk (WA)

Grantee: Hood Canal Salmon Enhancement Group
Grant Amount: \$236,081
Matching Funds: \$300,000
Total Amount: \$536,081

Prepare project designs for integrated floodplain protection and restoration along the lower 3 miles of the Big Quilcene River. Project will reduce flood risk, improve salmon and shellfish habitat while enhancing water quality, recreational access, and economic vitality in the local community.

### Increase Ecological Health and Community Protection from Lake Michigan Dune and Beach Restoration (WI)

Grantee: Natural Resources Foundation of Wisconsin
Grant Amount: \$249,901
Matching Funds: \$250,000
Total Amount: \$499,901

Develop engineering plans for constructing submerged sills and living shorelines that will increase coastal resiliency, restore terrestrial and aquatic habitats, improve the fisheries, and reduce vulnerability to extreme weather events. Project will respond to findings from a coastal assessment of southeastern Wisconsin's Lake Michigan shoreline which identified coastal areas of greatest vulnerability and resiliency opportunities.