

**FY2021 Coastal Resilience Grant Awards**

<b>Recipient</b>	<b>Project Title and Description</b>	<b>Grant Award</b>
<b>Beverly</b>	<p><i>Feasibility Assessment and Conceptual Designs for Green Infrastructure and Resilience Improvements at Obear Park</i></p> <p>The City of Beverly will assess feasibility and develop conceptual designs for nature-based improvements at Obear Park, a coastal park along the Danvers River, to withstand impacts from flooding, erosion, and sea level rise. The study will investigate potential living shoreline techniques, culvert alterations, and relocation and retrofits to existing park facilities.</p>	\$58,340
<b>Beverly</b>	<p><i>Vulnerability Assessment and Feasibility Study for the Beverly Pump Station on Water Street</i></p> <p>The City of Beverly will conduct a vulnerability and feasibility assessment of the Beverly Pump Station on Water Street, a sanitary sewerage facility serving Beverly, Danvers and other entities. The analysis will evaluate alternatives to address both short- and long-term risks of flooding and sea level rise.</p>	\$135,445
<b>Boston</b>	<p><i>Technical Analysis and Resilient Design Development Options for East Boston's Waterfront (Carlton Wharf to Lewis Mall)</i></p> <p>The Boston Planning and Development Agency will analyze site conditions and develop implementable design options to protect the East Boston waterfront and community from future sea level rise and coastal storm events. The project will specifically look at two near-term critical flood entry points around Carlton Wharf and Lewis Mall along Marginal Street and engage adjacent property owners in the development of design alternatives.</p>	\$300,000
<b>Braintree</b>	<p><i>Watson Park Shoreline Erosion Mitigation and Coastal Resiliency Improvement</i></p> <p>The Town of Braintree will complete environmental permitting and develop final construction drawings and bid documents for a series of green infrastructure designs to mitigate erosion and flooding at Watson Park, including salt marsh restoration, coastal bank stabilization, earthen berms, and stormwater management.</p>	\$102,329
<b>Chatham</b>	<p><i>Alternatives Providing Shore Protection and Mitigating Shoaling along the Coast Fronting Stage Harbor</i></p> <p>The Town of Chatham will undertake an alternatives analysis for mitigating severe coastal erosion and shoaling that are jeopardizing the viability of Stage Harbor. The project will focus on pragmatic engineering solutions that address existing erosion hazards and future climate change concerns over the next 10-20 years.</p>	\$114,262

<b>Chatham, on behalf of the Pleasant Bay Alliance</b>	<p><i>Pleasant Bay Living Shoreline: Restoration along Muddy Creek Channel Adjacent to Jackknife Harbor Beach</i></p> <p>The Town of Chatham, in coordination with the Pleasant Bay Alliance, will advance the conceptual design and initiate environmental permitting for restoring and enhancing salt marsh along the southern bank of the tidal channel into Muddy Creek. The project will protect a popular public beach and access location to the bay.</p>	<p>\$75,000</p>
<b>Chelsea</b>	<p><i>Resiliency, Restoration and Remediation of the Green Parcel</i></p> <p>The City of Chelsea, in partnership with Greenroots, will assess site conditions, feasibility, and develop alternatives for improving the resilience of the Green Parcel located along Mill Creek. The project team will evaluate potential nature-based measures consisting of open space enhancements, coastal bank stabilization, and remediation to help mitigate flooding and erosion and enhance public access to the waterfront.</p>	<p>\$74,678</p>
<b>Duxbury Beach Reservation, Inc.</b>	<p><i>Permitting for Nature-Based Storm-Damage Protection Measures for the Duxbury Beach Reservation Property</i></p> <p>The Duxbury Beach Reservation will complete permitting for a series of nature-based measures that will provide flood and erosion control and improve the resilience of the barrier beach system. The measures will address vulnerable areas including ocean-facing beaches and dunes, bay side of the barrier beach, Powder Point Bridge abutment and pilings, and low areas of the access road.</p>	<p>\$152,278</p>
<b>Edgartown</b>	<p><i>South Beach Bathhouse Relocation and Dune Restoration Project</i></p> <p>The Town of Edgartown will survey existing conditions and develop design plans to relocate an existing bathhouse, remove 150 feet of asphalt roadway off the coastal dune, restore the dune to natural conditions, and install a removable walkover structure over the restored dune at South Beach.</p>	<p>\$43,349</p>
<b>Essex</b>	<p><i>Elevation of Apple Street Roadbed for Alternate Transportation Route</i></p> <p>The Town of Essex will develop design plans for elevating a low-lying section of Apple Street, which is vulnerable to flooding during coastal storm events. Apple Street provides an alternate north-south transportation link in Essex when the primary route, the Essex Causeway (Route 133), is flooded during storms.</p>	<p>\$27,282</p>

<b>Essex County Greenbelt Association</b>	<p><i>Essex County Coastal Resiliency Outreach and Planning Project</i></p> <p>Essex County Greenbelt Association will assess infrastructure improvements and management options and produce a Climate Adaptation Management Plan for their headquarters at the Cox Reservation, which is vulnerable to coastal storm flooding and sea level rise. Greenbelt will also host a free film and lecture series for the public on coastal resiliency and climate change.</p>	<p>\$41,312</p>
<b>Hull</b>	<p><i>Dune Restoration and Accessibility Project at North Nantasket Beach</i></p> <p>The Town of Hull will finalize design plans and construct a dune restoration project with a new ADA accessible crossover ramp at A Street and Beach Avenue. The project will also restore non-permitted dune crossings and install sand fencing and educational signage to encourage use of designated dune access points and prevent storm damages.</p>	<p>\$310,186</p>
<b>Hull</b>	<p><i>Hull Wastewater Treatment Facility Coastal Resiliency Measures: Final Design and Permitting</i></p> <p>The Town of Hull will complete permitting and develop final design plans for flood protection measures at the town's wastewater treatment facility, including a combination of vegetated berms, flood gates, and flood barrier walls. The facility is the town's only wastewater treatment facility and provides services to the entire population in Hull and portions of Hingham and Cohasset.</p>	<p>\$205,414</p>
<b>Ipswich</b>	<p><i>Ipswich River Coastal Resiliency and Bank Stabilization Project: Phase 3</i></p> <p>The Town of Ipswich and its partner, Ipswich River Watershed Association, will finalize design plans for stabilizing an eroded section of coastal bank along the Ipswich River, located near the County Street Bridge and along a well-traveled trail adjacent to the river, in downtown Ipswich. The project team will also develop plans for stormwater management improvements, acquire necessary permits, and prepare bid-ready plans and specifications for future construction.</p>	<p>\$39,860</p>
<b>Ipswich</b>	<p><i>Building Climate Resilience through Adaptation at the Crane Estate – Argilla Road Adaptation Phase 3</i></p> <p>The Town of Ipswich, in partnership with The Trustees of Reservations, will continue to advance design plans and permitting for elevating a vulnerable portion of Argilla Road that crosses a salt marsh and stabilizing the side slopes of the roadway using nature-based techniques.</p>	<p>\$85,000</p>

<b>Marion</b>	<p><i>Design of Creek Road Pump Station Resiliency Improvements,</i></p> <p>The Town of Marion will design a new pump station at the existing Creek Road Pump Station site to reduce short- and long-term risks to storm surge and sea level rise. The pump station handles nearly half of the wastewater flow in the town and the project is a critical step in advancing the town’s comprehensive approach to a more resilient sewer system.</p>	\$225,000
<b>Marshfield and Duxbury</b>	<p><i>Permitting and Public Education in Support of Beach and Dune Nourishment at Critically Eroded Beaches in Marshfield and Duxbury</i></p> <p>The Towns of Marshfield and Duxbury will complete environmental permitting for beach and dune nourishment projects at several vulnerable coastal beaches along the towns’ east facing shoreline. Securing the permits will allow the towns to conduct large-scale nourishment and be able to accept compatible sediment for beach and dune nourishment from dredging projects.</p>	\$210,922
<b>Mass Audubon</b>	<p><i>Digital Coastal Climate Resilience Curriculum for Grades 5-8</i></p> <p>Mass Audubon will develop a multi-media coastal climate resilience curriculum for middle school students. The project team will design and host focus groups to determine students’ and teachers’ needs and preferences, film Mass Audubon coastal properties to create videos that will be used in the curriculum, and create four to six episodic lesson plans that include interactive digital materials ready for download by middle school teachers.</p>	\$45,580
<b>Mattapoissett</b>	<p><i>Mattapoissett Neck Road Flood Resilience Project</i></p> <p>The Town of Mattapoissett will assess future flood risks from sea level rise and coastal storms and develop alternatives to improve the resilience of the Mattapoissett Neck Road causeway and a culvert crossing through a salt marsh under the southern portion of the road.</p>	\$74,981
<b>New Bedford</b>	<p><i>West Rodney French Boulevard Beach Nourishment Design Plans and Contract Document Preparation</i></p> <p>The City of New Bedford will prepare final design plans and contract documents for future construction of the West Rodney French Boulevard beach nourishment project. The project will help address long-term erosion of the shoreline, which threatens West Rodney French Boulevard and sewer infrastructure.</p>	\$77,755

<b>New Bedford Port Authority</b>	<p><i>Comprehensive Assessment of Municipal Infrastructure and Land/Sea Connections</i></p> <p>The New Bedford Port Authority, in partnership with the City of New Bedford’s Department of Environmental Stewardship and the Town of Fairhaven, will assess the current conditions of municipally owned and managed piers in the New Bedford/Fairhaven Harbor and New Bedford’s South Terminal, evaluate adjacent utility and roadway connections, and develop recommendations for adapting the infrastructure to projected sea level rise and increased storm events.</p>	<p>\$154,178</p>
<b>Oak Bluffs</b>	<p><i>Mapping Storm Tide Pathways in the Six Towns of Martha’s Vineyard: Assessing Coastal Resiliency to Storms and Sea Level Rise</i></p> <p>The Town of Oak Bluffs will partner with the Martha’s Vineyard towns of Aquinnah, Chilmark, Edgartown, Tisbury, and West Tisbury to map and develop spatial datasets of low-lying areas that serve as pathways for coastal waters to flow inland. The project will also coordinate with the National Weather Service’s Coastal Flood Threat and Inundation Mapping website that provides real-time total water level forecasting.</p>	<p>\$223,480</p>
<b>Orleans</b>	<p><i>Nauset Beach Parking Phased Retreat</i></p> <p>The Town of Orleans will complete design and permitting for the relocation of a 223-space parking lot, access road and septic system at Nauset Beach. The phased retreat plan is intended to maintain use of the site for public recreation as long as possible, enhance the ability of the existing coastal resources to provide storm damage protection and flood control, and minimize loss of infrastructure.</p>	<p>\$79,151</p>
<b>Plymouth</b>	<p><i>Plymouth Long Beach Mixed Sediment Nourishment: Design and Permitting</i></p> <p>The Town of Plymouth will design and permit a mixed sediment (i.e., sand, gravel, and cobble) beach nourishment project along an eroded section of Long Beach, located north of the Day Parking Area. Adding sufficient volume of compatible sediment will help protect Ryder Way (a gravel access road for emergency vehicles), residences, and recreational uses, and improve the natural function of the barrier beach to buffer storm impacts to Plymouth Harbor.</p>	<p>\$142,000</p>

<b>Provincetown</b>	<p><i>Increasing Coastal Resiliency through Intermunicipal Shoreline Management: Phase 2</i></p> <p>The Town of Provincetown will continue working with the Towns of Truro, Wellfleet, and Eastham toward a regional approach to shoreline management for Eastern Cape Cod Bay. The four towns will work to update an intermunicipal geodatabase, explore a potential regional sand stockpiling system, identify parcels suitable for salt marsh migration, inventory low-lying roadways, and continue outreach and education with town staff and community members.</p>	\$248,470
<b>Salem</b>	<p><i>Coastal Resilience at Collins Cove - Monitoring and Maintenance of the Restored Salt Marsh</i></p> <p>The City of Salem, in partnership with Salem Sound Coastwatch and Salem State University, will monitor and maintain the recently restored fringing salt marsh at Collins Cove and conduct public education. The project team will track growth of salt marsh grasses and other plants, document benthic changes, conduct drone-based elevation surveys, and repair the living shoreline if it becomes damaged during storm events.</p>	\$62,825
<b>Save Popponeset Bay, Inc.</b>	<p><i>Improving the Coastal Resilience of Popponeset Spit</i></p> <p>Save Popponeset Bay, with the Town of Mashpee and Mass Audubon, will construct a dune restoration project on Popponeset Spit. The project will improve storm damage protection and flood control for properties landward of the barrier beach around Popponeset Bay, enhance habitat for endangered species such as piping plover and least terns, and improve recreation.</p>	\$426,632
<b>Tisbury</b>	<p><i>Feasibility Assessment and Conceptual Design for Coastal Storm Protection along the Vineyard Haven Shoreline</i></p> <p>The Town of Tisbury will continue to develop shoreline management strategies that will provide resiliency for the Vineyard Haven Harbor shoreline over the next 50 years. The project team will perform a detailed feasibility assessment and develop site-specific conceptual designs of recommended resilience strategies, including dune and beach nourishment and elevation of roadways.</p>	\$111,022
<b>Wareham</b>	<p><i>Installation of a Bypass Connection at the Narrows Pump Station,</i></p> <p>The Town of Wareham will install an emergency sewer bypass at the Narrows Pump Station to allow the station to continue to serve critical infrastructure upstream of the station in the event of major equipment damage and debris impacts during storm events.</p>	\$233,720
<b>Total</b>		\$4,080,451