



# Rhode Island Shoreline Adaptation for Resilience and Habitat Enhancement Project Inventory

<b>Project Type</b>	Project final design and permitting		
<b>Theme</b>	Partnerships: <i>To help communities identify shoreline adaptation projects, the Rhode Island Coastal Resources Management Council (CRMC) proactively formed partnerships with stakeholders from 21 coastal municipalities to understand local priorities and gain buy-in for potential projects.</i>		
<b>Keywords</b>	Multidisciplinary collaboration, municipal resilience, project inventory, capacity building, shoreline adaptation		
<b>Organization (Type)</b>	<a href="#">Rhode Island CRMC</a> (State agency)		
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<b>Award Amount<sup>1</sup> and Year</b>	NFWF Award: \$280,140	Match: \$347,027	Award Year: 2018
<b>Location</b>	Multiple locations throughout Rhode Island		
<b>Partners</b>	Save The Bay, Rhode Island municipalities, University of Rhode Island Coastal Resources Center/Sea Grant, Roger Williams University Marine Affairs Institute		
<b>Multimedia and Additional Links<sup>2</sup></b>	<ul style="list-style-type: none"> <li>• Project Site Inventory: <a href="#">Google Maps Viewer</a></li> <li>• Erosion Project Fact Sheet: <a href="#">CRMC FactSheet</a></li> <li>• Coastal Erosion Adaptation Fact Sheet: <a href="#">Coastal Erosion Adaptation Fact Sheet</a></li> <li>• Habitat Restoration Planning Final Report: <a href="#">Final Report</a></li> <li>• SAID Fact Sheet: <a href="#">Coastal Resilience SAID Fact Sheet</a></li> </ul>		

<sup>1</sup> The award amount does not necessarily reflect the total project cost. The match amount is based on the project proposal information.

<sup>2</sup> Disclaimer: The opinions expressed in the multimedia and additional relevant links are those of the project team and their partners only and do not necessarily reflect the views of the National Fish and Wildlife Foundation (NFWF).

## Transferable Strategies from this Case Study

- **Foster efficient collaboration:** Establishing clear goals for partners saves time and money while promoting knowledge sharing and capacity transfer. It is equally important to ensure one group assumes a leadership role. Having an organization with the capacity to lead a complex process that requires coordination among partners is an important driver of project success.
- **Look for ways to leverage resources to help build local capacity:** Executing centralized contracts for services for multiple projects can achieve economies of scale and minimize time spent on contract administration.
- **Help stakeholders visualize solutions:** Conducting visits to potential project sites and providing visualizations of coastal hazards, such as through a website or mobile app, can help with engaging residents and gaining community support, particularly for nature-based project approaches.

# Project Overview: Rhode Island Shoreline Adaptation for Resilience and Habitat Enhancement Project Inventory

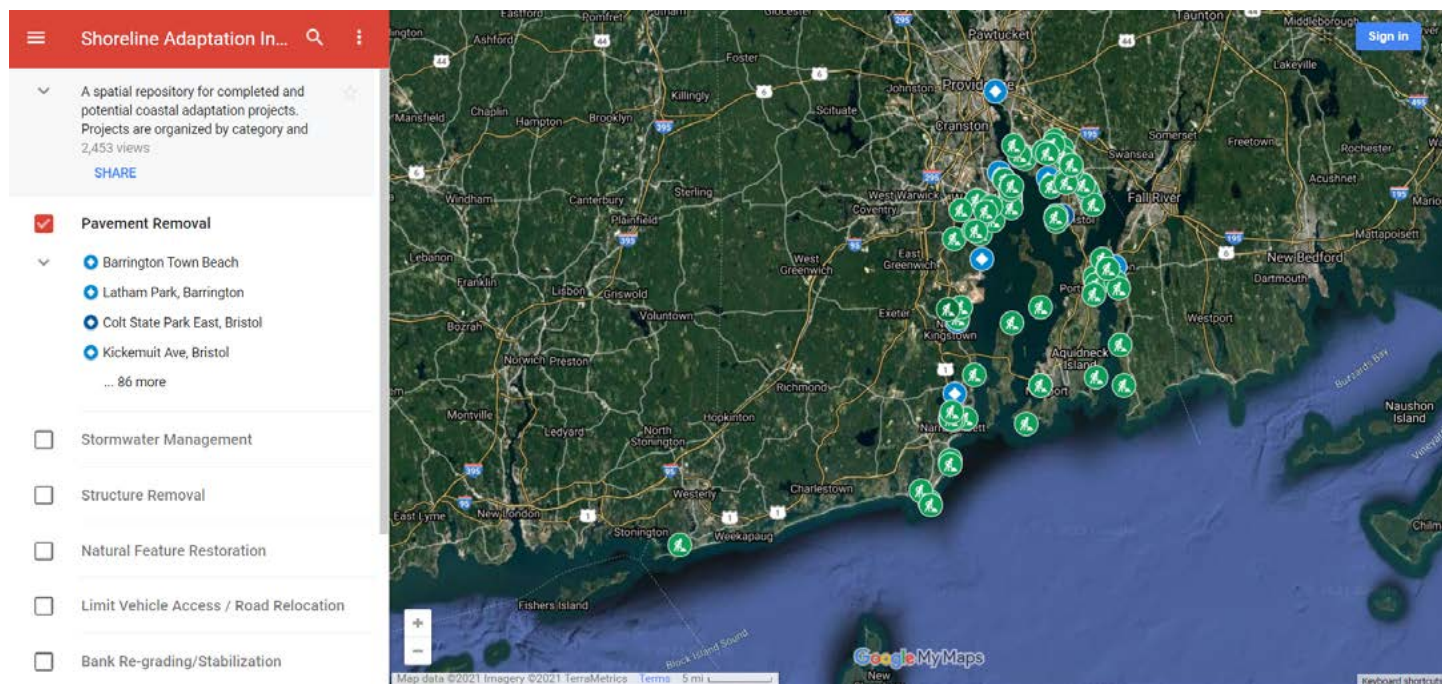
Rhode Island now has nine fully designed project plans that, when implemented, will address coastal climate change threats, thanks to a project led by the Rhode Island Coastal Resources Management Council (CRMC). In Rhode Island, as in many other states, municipalities are on the front lines when dealing with the effects of climate change and need support to identify, prioritize, obtain funding for, and implement adaptation and resilience projects.

CRMC is an independent state regulatory agency charged with planning and management of Rhode Island’s coastal resources. It gathered a diverse group of nonprofit, academia, and municipal partners to launch the Shoreline Adaptation Inventory and Design Program (SAID). CRMC used a collaborative process to create a [statewide spatial repository](#) of adaptation projects to address the impacts of coastal storms, sea level rise, and stormwater.

The inventory provides Rhode Island’s 21 coastal municipalities with a pipeline of potential projects for future funding and implementation, including nine ready-to-implement projects with completed engineering plans and permit applications. This inventory will help coastal municipalities build community resilience and streamline efforts to obtain funding for new shoreline adaptation efforts.

## Project Impacts

- **Plans developed:** Engineering and design plans were developed for nine shoreline adaptation projects that address erosion and flooding issues while building habitat and community resilience.
- **Projects identified:** As of 2021, the SAID inventory contains over 240 projects.
- **Government agencies engaged:** 21 government agencies of coastal municipalities engaged in identifying and planning for shoreline adaptation projects.



Statewide spatial repository (RICRMC).

## Challenges and Solutions

Many Rhode Island communities are already investigating options for coastal resilience projects but need data and tools to make sound choices and meet local needs. They also need help engaging residents about coastal hazards and the various approaches that can be taken to improve resilience and safety while also restoring or enhancing natural systems. To develop the project inventory, CRMC relied on strong **partnerships** to strengthen municipal capacity and engage local communities in identifying and prioritizing adaptation projects.

## Local Capacity and Support

### Challenge:

Though coastal municipalities in Rhode Island recognize the need to prepare for potential sea level rise and other climate impacts, they often lack the necessary organizational capacity and expertise to do so. Furthermore, it is challenging to find qualified contractors and environmental engineers that are familiar with nature-based approaches.

### Solutions:

- **Identify complementary roles for partners to help build local capacity:** CRMC took on an overall coordination and facilitation role, including administrating a competitive bid process to hire an environmental engineering firm. CRMC then facilitated discussions with municipalities and the chosen firm. Project planning discussion centered on site prioritization and how to best incorporate nature-based approaches into the projects. Other project partners, such as Save The Bay and the University of Rhode Island Coastal Resources Center, worked directly with municipalities to engage communities and create cohesive project goals. The consultant brought key engineering and technical expertise to the process, while the project team (CRMC, Save The Bay, and the University of Rhode Island) was able to advise the consultant and communities on incorporating nature-based solutions based on their experience with previous projects. Save The Bay also helped municipalities prepare grant applications for construction funding.
- **Understand local priorities:** By working closely with municipal agencies and other project partners, the project team gained important insights into local perspectives and priorities for coastal resilience projects. The project team also developed the [MyCoast App](#), a portal for collecting and analyzing pictures and data relating to coastal flooding events throughout the state, such as king tides and coastal storms. The app helps users visualize the impacts of coastal hazards.

## Community Engagement

### Challenge:

During the inventory development stage, CRMC and its partners invited local communities to nominate sites for future shoreline adaptation projects. The team then vetted the nominations with their respective municipalities. Many of the nominated project sites were in areas used by multiple groups with varying interests and priorities, introducing the need to consider issues such as public access, recreational use, public safety, and aesthetics alongside shoreline, habitat, and community resilience. While these priorities were not mutually exclusive, conflicting interests made it challenging for municipalities to gain community support and buy-in for projects.

### Shoreline Adaptation Project Inventory: Project Types

- Pavement removal
- Stormwater management
- Structure removal
- Natural feature restoration
- Road relocation/vehicle access limitation
- Bank regrading/stabilization
- Culvert redesign
- Utility removal/relocation



Potential project site at Gull Gove in Portsmouth, Rhode Island (RI CRMC).



Site visit to Fogland Beach in Tiverton, Rhode Island (RI CRMC).

### **Solutions:**

- **Conduct proactive outreach and engagement to build relationships with communities:** CRMC and its partners held an educational webinar and invited community liaisons, neighborhood associations, and municipal residents on field trips to shoreline locations in all 21 communities to see candidate sites and completed projects. These site visits raised awareness of the need for implementing coastal adaptation projects, including the benefits of using nature-based approaches. Site visits also ensured that local communities could voice their opinions and determine priorities for local projects.
- **Foster trust among project partners:** CRMC held meetings with municipal staff and decision-makers to discuss priorities for shoreline adaptation. These discussions helped the project team build trust and establish productive partnerships with municipal staff.
- **Encourage designs that deliver multiple benefits:** While enhancing shoreline habitats and addressing climate change and sea level rise impacts were primary design goals, adding components to enhance public access and recreation opportunities helped increase community support for the proposed designs.