



Overcoming Local Barriers to Implementation and Getting to Shovel Readiness, North Carolina

Project Type	Community capacity building and planning, site assessment and preliminary design, final design and permitting, restoration and monitoring		
Theme	Partnerships: <i>Local governments often lack capacity to implement coastal resilience projects. To strengthen coastal municipal capacity for project implementation, the North Carolina Department of Environmental Quality (NCDEQ) provided voluntary incentives, including technical and financial assistance, to partner with local governments in developing and implementing resilience strategies.</i>		
Keywords	Adaptation planning, municipal resilience, capacity building, shoreline adaptation, vulnerability assessment		
Organization (Type)	NCDEQ Division of Coastal Management (State agency)		
Project Contact (as of 2022)	Tancred Miller, Policy and Planning Section Chief, tancred.miller@ncdenr.gov		
Award Amount¹ and Year	NFWF Award: \$1,141,047	Match: \$830,000	Award Year: 2019
Location	Multiple North Carolina coastal communities and the Rachel Carson National Estuarine Research Reserve		
Partners	North Carolina Sea Grant, The Nature Conservancy, North Carolina Office of Recovery and Resiliency		
Multimedia and Additional Links²	<ul style="list-style-type: none"> • ERG interview with Tancred Miller: Interview (podcast transcript linked) • RCCP planning handbook: NCDEQ Coastal Management and Resilience • RCCP program information: Program information • RCCP fact sheet: RCCP two-pager • RCCP goals: coastalreview.org 		

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

² 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

- **Develop incentive-based programs:** Voluntary programs that provide incentives, such as funding and technical support, can be more effective than mandated efforts. Determining capacity gaps and local community needs—such as technical knowledge, planning assistance, or permitting support—can help organizations tailor incentives to promote community engagement.
- **Draw on proven frameworks:** Coastal resilience planning, particularly nature-based restoration, is a rapidly evolving discipline. Many national, state, and private organizations continue to identify useful approaches and tools. Connecting with practitioners and sharing knowledge can be a critical and cost-effective strategy when designing projects and approaches.
- **Generate demand for nature-based solution expertise:** As nature-based solutions become more common, there will be a need for more skilled experts who can implement these approaches. Coastal resilience projects can help technical contractors grow their skill and capacity by linking them with communities and organizations interested in implementing nature-based solutions.
- **Build a coastwide portfolio of strategic resilience projects:** Having a prioritized portfolio of shovel-ready projects helps communities compete for and leverage federal and state implementation funds. Additionally, this planning ensures that investments are vetted and cost effective while encouraging communities to be prepared for the redevelopment that usually follows coastal storms and flooding events.

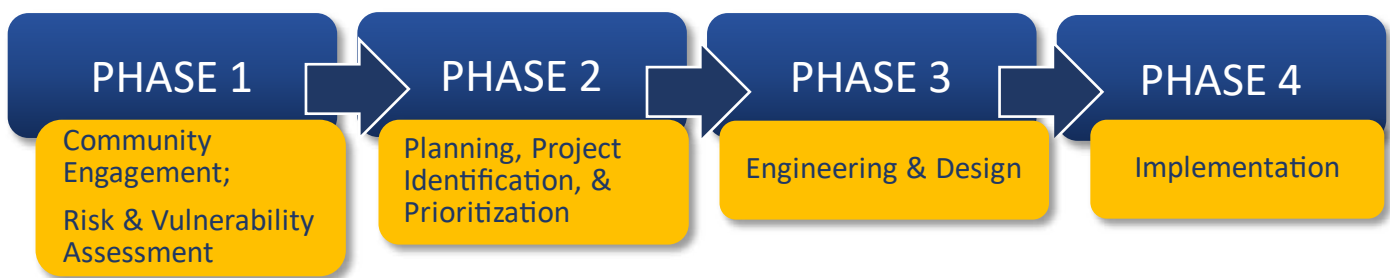
Project Overview: Overcoming Local Barriers to Implementation and Getting to Shovel Readiness, North Carolina

To overcome barriers to local resilience planning, the North Carolina Department of Environmental Quality's Division of Coastal Management (DCM) and the North Carolina Office of Recovery and Resiliency (NCORR) developed the Resilient Coastal Communities Program (RCCP). The RCCP provides both the funding and know-how to overcome capacity constraints. North Carolina is home to an extensive estuarine coastline that is increasingly threatened by climate change impacts, such as storm surge and flooding. While coastal municipalities are extremely vulnerable to climate change risks, they often lack the capacity to plan, design, and implement nature-based solutions to reduce their vulnerability.

Project Outcomes:

- **Grants awarded:** 26 coastal communities received a total of \$705,000 in grants for technical assistance in risk assessment and planning.
- **Plans developed:** At least 20 engineering and design plans completed to enable shovel-ready projects in North Carolina's coastal communities.

The RCCP provides an opportunity for coastal municipalities to undertake a four-phase process (Figure 1) to plan and implement resilience projects. A key goal of the RCCP is to develop a prioritized portfolio of strategic projects that have completed the necessary engineering and design work to be shovel ready. With external contractors helping to provide technical assistance, program participants use the grants to complete climate and social vulnerability assessments, create actionable plans, and develop prioritized lists of natural and hybrid infrastructure restoration projects.



The four phases of the RCCP (Adapted from the North Carolina Department of Environmental Quality)

Challenges and Solutions

To avoid ad-hoc and reactionary approaches, DCM wanted to help municipalities develop a long-term vision for resilience and identify adaptation priorities for their communities. However, obtaining funding, political will, and community support for a long-term planning and prioritization process was not simple. By forging strong and diverse **partnerships**, DCM was able to initiate a new, innovative program to strengthen community resilience.

Gaining Project Support

Challenge:

The project team had a clear vision for what it wanted to achieve: a comprehensive planning process to strengthen coastal municipal capacity for implementing resilience projects with both nature-based and traditional gray infrastructure features. The team struggled, however, to secure funds that could support planning and incentivize local governments to participate, despite state leadership and partners seeing the value of the project.

Solutions:

- **Provide voluntary incentives for local partners:** Instead of mandating participation in the RCCP, DCM offers incentives, such as funding and technical support, for local governments to get involved. Municipalities that participate in Phase 1 and 2 planning receive contractor assistance to develop resilience strategies. Once these strategies are established, the municipalities can apply for subsequent funding to develop engineering and design plans and implement projects as part of Phases 3 and 4 of the RCCP.

- **Build on the successes of other programs:** DCM and its partners had limited resources to design the RCCP. They also wanted to build on existing efforts and the knowledge gained from these efforts. The project team investigated frameworks for similar programs in other states and at the national level and drew upon successful examples to develop the RCCP. In particular, the team relied on national-level guidance for nature-based solutions from the [Naturally Resilient Communities](#)¹ project and state-level resilience programs such as [Massachusetts' Municipal Vulnerability Preparedness Program](#)² and the [Florida Resilient Coastlines Program](#).³ The project team formed relationships with their counterparts from these organizations and programs, and their advice was invaluable in guiding the RCCP's development.

Building Capacity for Project Implementation

Challenge:

Phases 1 and 2 of the RCCP focus on project planning, while Phases 3 and 4 focus on design and restoration. DCM realized that many coastal municipalities struggle during project planning phases to build a sufficient foundation of organizational and technical capacity to navigate the upcoming complexities of project design and implementation.

Solutions:

- **Provide permitting guidance and assistance:** As the permitting agency for coastal restoration projects, DCM works closely with participating municipalities during the planning phase to ensure that identified projects are feasible to permit. Additional funding and technical assistance is available to communities in Phase 3 (the engineering and design phase) when they are applying for and receiving permits.
- **Develop partnerships with qualified contractors:** DCM understood that communities need help in conducting the necessary assessments to inform resilience planning. Therefore, DCM paired participating municipalities with technical experts. These firms are providing the technical support necessary to help communities develop their resilience strategies in accordance with the RCCP's [Planning Handbook](#). Not only are these partnerships building local knowledge, but they are also engaging underserved communities and helping contractors strengthen their skills, particularly around nature-based solutions.

¹ <http://nrcreolutions.org/>, Naturally Resilient Communities Partnership, 2021

² <https://resilientma.org/mvp/>, Massachusetts Municipal Vulnerability Preparedness, 2021

³ <https://floridadep.gov/rcp/florida-resilient-coastlines-program>, Florida DEP, 2021