Enhancing Coordination on Shoreline Management and Resilience Measures in New York State

Project Overview

Nature-based shoreline stabilization and restoration techniques have the potential to maintain and enhance important ecological services and coastal resilience, while at the same time being cost-competitive with traditional approaches. Since 2009, the Hudson River National Estuarine Research Reserve has engaged in scientific research, implementation, and promotion of sustainable shorelines in the Hudson River Estuary via the Hudson River Sustainable Shorelines Project.

Around the time of passage of the 2014 New York State Community Risk and Resiliency Act, the Hudson River Reserve began receiving requests from other regions of the state about the Sustainable Shorelines Project. Eventually, an ad hoc interagency group, led by the Hudson River Reserve, formed to collaborate on implementation of sustainable shorelines state-wide. The Community Risk and Resiliency Act provided an opportunity for the Hudson River Reserve to formally share lessons learned and to work collaboratively with state agencies to advance the use of many types of nature-based approaches. The act called for the development of guidance on "the use of resiliency measures that utilize natural resources and natural processes to reduce risk" by January 2017 (the deadline has since been extended).

This project coordinated a team of staff members from New York State agencies to draft the required guidance: *Using Natural Resilience Measures to Reduce Risk in New York State*. The guidance examines the use of resiliency measures that emphasize the implementation of natural resources and natural processes to reduce risk. This project's collaborative process and products were designed to support New York State agencies, shoreline managers, and other decision makers considering nature-based shoreline approaches and other natural resilience measures.

Products

- A draft of the Natural Resiliency Measures Guidance, *Using Natural Resilience Measures to Reduce Risk in New York State*. The guidance provides information that supports consistent decision-making across the state on how to use natural resilience measures to reduce flooding and erosion, and to inform state agencies, local agencies, and permit applicants of when and where these measures work best to reduce risk related to sea level rise, storm surge, and flooding.
- A needs assessment of shoreline design professionals. A subset of the drafting team, with assistance from the facilitator, conducted interviews on the value and components of a New York-focused design guide for nature-based (sustainable) shoreline engineering. The facilitator managed these discussions, which occurred across 12 months, and summarized key themes from the interviews.

Project Location

Hudson River National Estuarine Research Reserve

Project Duration

September 2015 to August 2017

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Project Type

Science Transfer - promoting the use of science

Project Partners

- Consensus Building Institute, Inc.
- Greenway Conservancy for the Hudson River Valley
- Hudson River National Estuarine Research Reserve
- New York State Department of Environmental Conservation
- New York State Department of State
- New York State Office of Parks, Recreation, and Historic Preservation

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Project Benefits

In addition to the creation of a draft guidance document and a needs assessment of shoreline designers, the project also contributed to

- Stronger relationships and greater cohesiveness and alignment among state agencies. This project strengthened interagency collaboration beyond the scope of the project. For example, it led to an effort by the New York Department of Environmental Conservation and the Office of Parks to assess sites in the Great Lakes for natural and nature-based feature demonstration projects.
- Identification of New York State's strengths and gaps in information on natural and nature-based features. After identifying knowledge gaps, project members were able to clarify their priorities and build agencies' support for future partnership projects to further promote the implementation of natural resilience measures.
- Lessons learned from the challenges of working collaboratively and intensively across many stakeholder groups. The team learned the significance of ensuring that stakeholder engagement occurs at the beginning of the project, that all stakeholders agree on the project focus, and that the project is broken down into discrete, achievable steps so participants see tangible progress and results.

Project Approach

The Hudson River Research Reserve collaborated with multiple New York State agencies and outside technical experts to capture the best available knowledge of the ability of nature-based shoreline stabilization approaches and other natural and nature-based features to reduce risk and enhance ecosystem and community resilience. Key components of this work included developing agency-accepted definitions and terminology, clarifying regulatory approaches, and outlining ecological and hazard mitigation principles. A core interagency leadership team guided the larger drafting team in examining approaches that covered the New York landscape, from upland forests and wetlands to tidal wetlands, beaches, and nearshore areas.

- Reviewed Literature – Members of the team and other agency staff conducted a joint review of existing social and scientific literature, policies, practices, and guidance and explored opportunities for enhancing these programs and guidance.
- Facilitated Information Sharing – The leadership team facilitated information exchange among agencies. Hudson River Reserve staff integrated findings of the Hudson River Sustainable Shorelines Project into meetings and project content. Facilitation helped develop consensus on how to promote and implement nature-based shoreline protection and other resilience measures in New York State.
- Drafted Recommendations – The drafting team provided advice, shared content, bridged to other aspects of the Community Risk and Resiliency Act or state permits or regulations, and/or reviewed documents, ultimately drafting the guidance report.

What's Next

The final guidance report will be completed after public review, and published on the New York State Department of Environmental Conservation's website.

As a result of the needs assessment conducted with shoreline engineers under this project, a New York Great Lakes-focused decision support tool and technical guidelines for nature-based features for shoreline management are also under development.

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