

## Monitoring New York State's Natural & Nature-Based Shoreline Features

Extreme weather, sea level rise, Great Lakes' storms and the resultant shoreline erosion demand innovative solutions for protecting New York's shorelines, property, people, and ecology. Nature-based solutions may be possible, but awareness and data regarding their efficacy is limited.

Interest in utilizing innovative shoreline management has grown throughout New York State (NYS) as an alternative to hard structural features. Natural and nature-based features might limit negative impacts on shoreline processes and provide ecological and community benefits. However, there is limited evaluation data available or being collected on the performance of various protocols for gathering such data.

Since 2017, New York Sea Grant (NYSG) has been part of a statewide effort to develop monitoring protocols that track the performance of shoreline types throughout NYS. NYSG Extension specialists serve as regional leads for the New York City, Long Island, and Great Lakes regions, providing workshop design, facilitating local workshops, and soliciting feedback from the respective regions.

In 2018, a shoreline monitoring framework draft was developed and is being tested as a way to help stakeholders better understand the ecological services, hazard mitigation and community well-being contributions that natural, nature-based and structural features provide.

NYSG organized three of four regional workshops attracting more than 80 participants, including experts from federal, state, and local agencies; homeowner associations; and non-government organizations shared experiences with shoreline management and best practices. Most importantly, attendees provided recommendations to refine the monitoring framework to ensure applicability to specific regions.

Work continues in 2019 as NYSG, partners, and stakeholders foster relationships with regional practitioners to develop this statewide monitoring framework aimed at addressing ecological function, hazard mitigation, and socio-economic outcomes.



*Participants at a regional workshop provide suggestions and feedback on monitoring framework. Photo: SCAPE/Hannah Davis*

### Partners:

- Science and Resilience Institute at Jamaica Bay
- Arcadis Design and Consultancy
- Consensus Building Institute
- City University of New York
- New York City Department of Parks and Recreation
- New York-New Jersey Harbor Estuary Program
- New York State Dept. of Environmental Conservation
- SCAPE Landscape Architecture
- U.S. Forest Service: NYC Urban Field Station
- New York State Department of State
- New York State Energy and Research Development Authority

### **The Sea Grant Focus Area for this project is New York Resilient Communities & Economies**

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA.

New York Sea Grant Extension,

112 Rice Hall, Cornell University, Ithaca, NY 14853

*This project summary was written by NYSG and Science & Resilience Institute at Jamaica Bay Coastal Resilience Extension Specialist Helen Cheng, 718-951-5415, [helen.cheng@cornell.edu](mailto:helen.cheng@cornell.edu); NYSG Coastal Processes &*

*Facilities Specialist Kathleen Fallon,*

*631-632-8730, [kmf228@cornell.edu](mailto:kmf228@cornell.edu); and*

*Roy Widrig, NYSG Great Lakes Coastal Processes & Hazards Specialist, 315-312-3042,*

*[rlw294@cornell.edu](mailto:rlw294@cornell.edu); [www.nyseagrant.org](http://www.nyseagrant.org)*

