

New York Sea Grant Provides Shoreline Erosion Assistance to Great Lakes Residents

NYSG expertise with coastal processes and hazards is assisting residents, groups, and communities with responding to shoreline erosion impact.

New York Sea Grant is a joint program of Cornell University, the State University of New York, and the National Oceanic and Atmospheric Administration (NOAA).

New York State has 3,400 miles of diverse coastline and is the only state in the U.S. bordering both the Great Lakes and Atlantic Ocean. More than 85% of NY's population lives in a coastal region.



New York Sea Grant regional offices provide innovative research, technical assistance, and outreach on such issues as water quality, coastal resilience, marine & freshwater fisheries, invasive species, algal blooms, aquaculture & seafood, coastal literacy, and shoreline community development.

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NYSG Focus Area for this project summary: Resilient NY Communities & Economies

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January 2025

The dynamic forces acting on the shoreline of the Great Lakes can result in significant coastal erosion and flooding, directly impacting New York State residents' ability to live, work, and recreate along NY's coasts. New York's shorelines - the vast majority of which are privately owned - are subject to periodic erosion and flooding. Very few educational opportunities



During a New York Sea Grant workshop on nature-based features in 2024, local residents observe shoreline cliff erosion at an historical lighthouse in Dunkirk, NY, Photo: Roy Widrig/NYSG

exist for shoreline residents related to living on these dynamic shorelines.

In 2024, through direct contacts and the New York Sea Grant (NYSG) Virtual Site Visit reporting tool (www.nyseagrant.org/virtualsitevisit), NYSG consulted on 42 separate shoreline stretches, providing advice on shoreline management options, other science-based information, and shoreline project permitting.

In addition to site visits, NYSG offered workshops on nature-based shoreline erosion management (Dunkirk, July) and on seiche events (Angola, October). The workshops resulted in 64 direct contacts with shoreline residents learning about weather and shoreline dynamics, shoreline flooding and erosion management prevention strategies, and permitting. Shoreline site visits resulted in surveys of, and shoreline management recommendations for, approximately 7,000 feet of New York's Great Lakes shoreline. *"Shoreline Resident Folders"* were provided to all workshop attendees and residents who received in-person site visits.

NYSG consults with shoreline residents, groups, and communities, and hosts workshops in the eight counties across the Lake Erie and Lake Ontario shorelines to inform and enhance planning, preparation, and response to shoreline erosion events and impacts.

Project Partners/Funders:

- City of Dunkirk
- Lake Erie Watershed Protection Alliance
- National Weather Service
- New York State Department of State
- Town of Evans
- Funding: New York State Department of Environmental Conservation

New York Sea Grant: Bringing Science to the Shore Since 1971