



***NYSG resources helped a shoreline property owner make a well-informed decision for managing erosion along Lake Ontario***

## NYSG Resources Support Integrated Shoreline Redesign

After high water levels on Lake Ontario in 2017, much of a coastal dune along the shoreline near Mannsville, NY, in Jefferson County, was eroded. This put at risk a summer cottage, two neighboring properties, and a seasonal road. Work done in 2018 to repair the shoreline with rock rip-rap failed during a subsequent high water event in 2019. As a result, following an especially strong seiche event in June 2019, there was even greater erosion.

On August 30, 2019, property owner Larry VerWeire attended the Great Lakes Shoreline Erosion Management workshop, developed and hosted by New York Sea Grant (NYSG), in Webster, NY. Working with NYSG Great Lakes Coastal Processes and Hazards Specialist Roy Widrig, Mr. VerWeire requested a site visit to discuss erosion management options in September. He consulted the updated New York Great Lakes Shoreline Contractors fact sheet, and worked with a contractor to redesign his shoreline to provide greater protection against Lake Ontario erosion, without bringing in significant new construction materials to the site.

Because of NYSG's efforts, Mr. VerWeire had access to a combination of NYSG resources that enabled him to make a well-informed decision on managing his property on Lake



**Before and After:** The VerWeire shoreline before (top) and after consulting with NYSG re: integrated shoreline management options. Photos: Roy Widrig, NYSG

Today, the VerWeire shoreline represents the NYSG integrated approach to shoreline erosion management:

- apply a step-by-step process of diagnosing a problem (shoreline erosion),
- facilitate consultation with experts (NYSG, contractors), and
- empower stakeholders (property owner) to make well-informed decisions based on science-based knowledge of shoreline erosion dynamics.

### Erosion Management for New York's Great Lakes Shorelines

Roy Widrig  
Great Lakes Coastal Processes and Hazards Specialist



Figure 1: Shoreline management options on Chautauque Bay, NY.

The shorelines of Lake Erie and Lake Ontario are a dynamic, ever-evolving environment. The region is continuously affected by hydrologic and climatic forces, as well as human development. Since the last glaciers retreated more than 10,000 years ago, Great Lakes water levels have varied dramatically, as have the flows of water between these five massive lakes and their combined outflow to the Atlantic Ocean. The Great Lakes influence human activities and all aspects of the natural environment, from weather and climate to wildlife and habitat. Our knowledge of the geophysical, ecological, and socioeconomic characteristics of the region is increasing over time but we will continue to be challenged by uncertainty and the evolving nature of the natural system.

Much of New York's Great Lakes shorelines are naturally subject to erosion, which becomes a concern particularly where there are homes, businesses, or other structures nearby. There are a variety of shoreline management options that can be considered for managing erosion risks; however, some coastal landowners are not aware of the full array of erosion protection options that can be applied along the shorelines of Lake Ontario and Lake Erie. This booklet is intended to give New York's coastal landowners an introduction to a number of shoreline management options available for Great Lakes shorelines.

Great Lakes Coastal Processes

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**Download Erosion Management for New York's Great Lakes Shorelines:**  
[www.nyseagrant.org/glcoastal](http://www.nyseagrant.org/glcoastal) > Publications > Erosion Processes

**The Sea Grant Focus Area for this project is Resilient New York Communities and Economies.**

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