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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:  
**Environmental Literacy &  
Workforce Development in NY**

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January 2025

## Great Lakes Education Council Recommendations Lead to Workshops on Climate Change Impacts & Adaptations

*NYSG and NYS DEC partnered with Great Lakes teachers to develop and design professional development workshops on an environmental topic important to students.*

Teachers who would like to teach about the Great Lakes often lack the technical knowledge and resources required to do so. Professional development opportunities do not always spotlight topics that teachers can easily incorporate and are of interest to students. Giving teachers an active voice in the planning of a professional development opportunity offers workshop facilitators invaluable insight into topics of interest and creates stronger buy-in from future workshop participants.



*NYSG Great Lakes Literacy Specialist Nate Drag demonstrates a classroom activity during a Great Lakes Education Council meeting. Photo: Emily Fell/NYSDEC*

New York Sea Grant (NYSG) and the New York State Department of Environmental Conservation held four meetings from August 2023 to May 2024 to engage a council of teachers from NY's Great Lakes region. The council identified climate change in the Great Lakes as a topic important to them as educators and to their students, and advised that a workshop should highlight solutions to the challenges posed by climate change. These recommendations led to development of workshops with a focus on impacts and adaptations on New York's Great Lakes shorelines, and guest speakers from the National Weather Service, New York State Water Resources Institute (landscape architect), University at Buffalo (Indigenous Studies faculty), and NYSG (coastal processes and hazards).

Twenty-nine participants at two climate change workshops in August of 2024 learned from topical experts, participated in walking tours at New York State Parks that highlighted different shoreline features and their functions, and worked collaboratively to build resilient shoreline models and then test their design against simulated waves and fluctuating water levels. In post-workshop surveys, 96% of participants agreed or strongly agreed that their knowledge of climate change in the Great Lakes increased; 100% agreed or strongly agreed that the workshop was a successful professional development opportunity.

The development of a Great Lakes Education Council was a successful pilot project that demonstrates the value of teacher-driven professional development workshop planning that leads to increases in knowledge and confidence in teaching students about climate change impacts and adaptations on New York's Great Lakes shorelines.

### Project Partners/Funders:

- New York State Department of Environmental Conservation Great Lakes Program
- Center for Great Lakes Literacy