



*NYSG provided scientific expertise to update and enhance a climate-focused curriculum to help NYC area students envision and plan for climate resilience*

## Adapted Curriculum Helps Students in NYC Explore Sea Level Rise Past and Future

Climate change — from extreme heat to sea level rise and storms — is impacting the lives of residents in New York City (NYC), with the local sea level expected to rise another 1.41 ft. to 3.25 ft. by the year 2070 (*sealevel.nasa.gov*). Young people in urban coastal communities will be especially affected by these changes, and are confronted with the need to adapt to and solve climate-related challenges.

A “Resilient Schools Consortium” (RiSC) was launched in 2016 to empower students to understand and address climate impacts in their New York City neighborhoods. In support of the project, New York Sea Grant (NYSG) helped design and implement a locally-specific climate curriculum in collaboration with teachers and partner organizations.

In 2022, NYSG applied its coastal resiliency expertise to help update the RiSC curriculum with the best available climate science, and designed and implemented hands-on, field-based opportunities for student learning in partnership with the Coney Island Beautification Project. Eight NYC-area schools participated in the RiSC program in 2022, utilizing the updated curriculum and hands-on activities. Applying NYSG’s Sea Level Rise Activity Guide, NYSG led more than 100 students in measuring and placing “projected sea level in 2070” markers along the shoreline of Coney Island Creek, Brooklyn. Student teams used NYSG’s adapted interview guide to record five podcasts featuring local climate stories. Students openly shared their surprise at the future impacts of sea level rise. Participating teachers reported finding the curriculum and field trip experiences effective in promoting critical thinking about climate change and environmental justice and for improving students’ organizational and leadership skills.

The updated RiSC curriculum, enhanced with hands-on field trip opportunities and podcast development fosters localized environmental literacy and empowers students and teachers to be well-informed and active in building a more sustainable and resilient future for their communities.

### Partners:

- National Wildlife Federation • Science and Resilience Institute at Jamaica Bay
- Coney Island Beautification Project • American Littoral Society • New York City Department of Education
- **Funding:** National Oceanic and Atmospheric Administration



*Students participate in a sea level marking RiSC project learning activity along Coney Island Creek in Brooklyn in October 2022.  
Photo: Heather Sioux*

**Resilient Schools Consortium:**  
<https://www.riscnyc.org>

**The Sea Grant Focus Area for this project is Environmental Literacy and Workforce Development.**

New York Sea Grant is a joint program of Cornell University, the State University of New York, and NOAA.  
Contact: New York Sea Grant Extension, 112 Rice Hall, Cornell University, Ithaca, NY 14853; [www.nyseagrant.org](http://www.nyseagrant.org).  
*Project summary was written by NYSG Coastal Resilience Specialist Katie Graziano, 718-951-5415, [kag247@cornell.edu](mailto:kag247@cornell.edu).*