



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:
Environmental Literacy
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Visualizing Sea-Level Rise with NYC Students

The Resilient Schools Consortium program provides New York City youth with opportunities to better understand and address climate impacts in their neighborhoods

Climate change — from extreme heat to sea level rise and storms — is impacting the lives of residents in New York City, 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.



The shoreline at Coney Island Creek. Photo: National Wildlife Federation

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.

On June 6, 2023, NYSG led a “blue line action” activity to demonstrate the impacts of sea level rise and greenhouse gas emissions to students from eight NYC public schools. Student teams met in Coney Island’s Kaiser Park for the National Wildlife Federation’s 2nd annual RiSC Community Open House: “Coney Island: Past, Present, and Future.” More than 100 middle and high school students walked from Coney Island Creek to Neptune Avenue and visualized sea level rise in 2100 under two different carbon emissions scenarios: “aggressive reductions,” standing at the shoreline, and “no reductions/business as usual,” as “seen” from the major thoroughfare of Neptune Avenue.

The students shared that by participating in the day they learned about sea level rise and climate justice. The RiSC program has been implemented in climate-vulnerable communities in NYC, Texas, and New Jersey, adopted in the U.S. Virgin Islands, and will soon be translated into Spanish and piloted in frontline communities in Puerto Rico.

Project Partners:

- National Wildlife Federation
- Coney Island Beautification Project

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