

# Gowanus Canal Conservancy's Gowanus Blue Schools Program Addresses Water Pollution



## Gowanus Canal Conservancy

Gowanus Canal Conservancy is dedicated to facilitating the development of a resilient, vibrant, open space network centered on the Gowanus Canal through activating and empowering community stewardship of the Gowanus Watershed. Since 2006, Gowanus Canal Conservancy has led grassroots volunteer projects; educating students on environmental issues; and working with agencies, elected officials, and the community to advocate for, build, and maintain innovative green infrastructure around the Gowanus Canal.

## Challenge

Combined Sewer Overflow (CSO) is the most significant source of ongoing pollution in the Gowanus Canal. Every year, about 363 million gallons of stormwater runoff and raw sewage discharge into the Gowanus Canal when it rains, adding harmful bacteria and other contaminants into the water that impact aquatic and human life. CSO negatively impacts students and residents that live near the Gowanus Canal, as they experience frequent sewage backups in their homes during rain storms.

## Solution

Gowanus Canal Conservancy's Gowanus Blue Schools program addresses the issue of CSO by providing over 250 middle and high school students with guidance to develop green infrastructure proposals for their schools to stop or slow stormwater before it enters the sewer system. According to the New York City Department of Environmental Protection, "Green infrastructure promotes the natural movement of water by collecting and managing stormwater runoff from streets, sidewalks, parking lots and rooftops and directing it to engineered systems that typically feature soils, stones, and vegetation. This process prevents stormwater runoff from entering the City's sewer systems."

## Challenge

- Every year, about 363 million gallons of stormwater runoff and raw sewage discharge into the Gowanus Canal during rain storms, adding harmful bacteria, and other contaminants into the water.

## Solution

- Students addressed the issue of CSO by designing comprehensive green infrastructure proposals for their schools and presenting their work to community stakeholders.

## Results

- Over 250 students created 85 school green infrastructure design proposals.
- Students educated their families about CSO and engaged NYC stakeholders in stormwater management.

## Results

Students addressed the issue of CSO by designing green infrastructure proposals for their schools. Gowanus Canal Conservancy provided support for six teachers from three area schools. Students developed math, science and design skills related to spatial thinking, calculating stormwater runoff, research, technical drawings, building models, team collaboration and public presentations. These middle and high school students gained exposure to design and engineering careers by meeting landscape architects and environmental engineers that visited their classrooms to provide feedback on their design projects.



Photo Credit: Amar Productions

At the end of the school year, students presented the top two final projects from each school at the Gowanus Blue Schools Design Challenge to a professional jury and to a public audience of parents, organizations and community members. Through these presentations, the students' families learned about CSO, including designs and methods for reducing and preventing CSO, with simple practices like conserving water during rain storms. The long term goal is to equip the project participants to have the tools to support stormwater management practices that reduce CSO at the community level.

## Online Media

- [STEM Gowanus Curriculum](#)
- [Website](#)
- [Instagram](#)
- [Facebook](#)
- [Twitter](#)

*"NYS P2I funding allowed our organization to continue a new program past it's initial pilot year, which gave it the footing to leverage additional funding sources to sustain the program for the next three years. We are grateful for the opportunity to have received this grant."*

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