

VALUING FOREST AND WETLAND LOSS ON STATEN ISLAND

STATEN ISLAND COALITION OF WETLANDS AND FORESTS, NY

STATEN ISLAND WETLANDS AND FORESTS HAVE DISAPPEARED

Prior to European settlement, Staten Island was almost entirely covered with forests and wetlands—the Raritan Lenape First Peoples called it *Aquehonga Manadnock*, the “Island of the Woods.” As of 2019, less than 20 percent of the island’s landcover was forest or wetland (7,230 acres).

ECOSYSTEMS ARE AT RISK IN THE NORTHWEST COAST

In 2021, 18-acres of freshwater wetlands and 1,800 mature trees were destroyed for the South Avenue Retail Project, future home to a BJ’s Wholesaler. The Graniteville site had included six seasonal wetlands appreciated for their wildlife and aesthetic beauty.

With plans for the Matrix Global Logistics Park West Campus, at least 72 acres of wetlands are now at risk across a 261-acre site that is part of a larger wetland complex along Old Place Creek. These projects are sited near socially vulnerable communities in the North Shore.¹

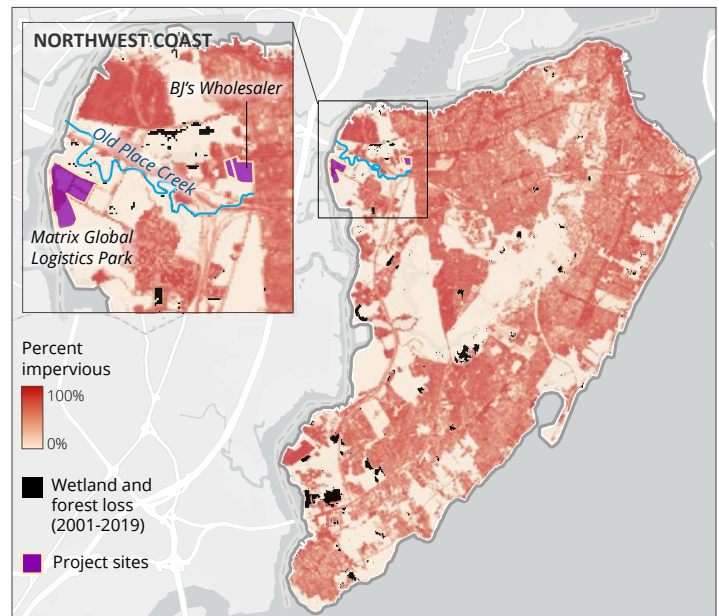
WETLANDS AND FORESTS PROVIDE CRITICAL BENEFITS

Wetlands and forests help to mitigate flooding, while providing other services such as carbon sequestration and storage, water capture and supply, and recreation. For example, during Hurricane Sandy in 2012, the Graniteville Wetland prevented flooding in adjacent neighborhoods. After the forest and wetlands were cleared for development, the community experienced flooding during Hurricane Ida in 2021.²

¹ Based on data from New York City’s Environmental Justice Area Census Tract Designation provided by the Mayor’s Office of Climate and Sustainability available at <https://data.cityofnewyork.us/City-Government/Environmental-Justice-Area-Census-Tract-Designatio/ircm-rcjd>

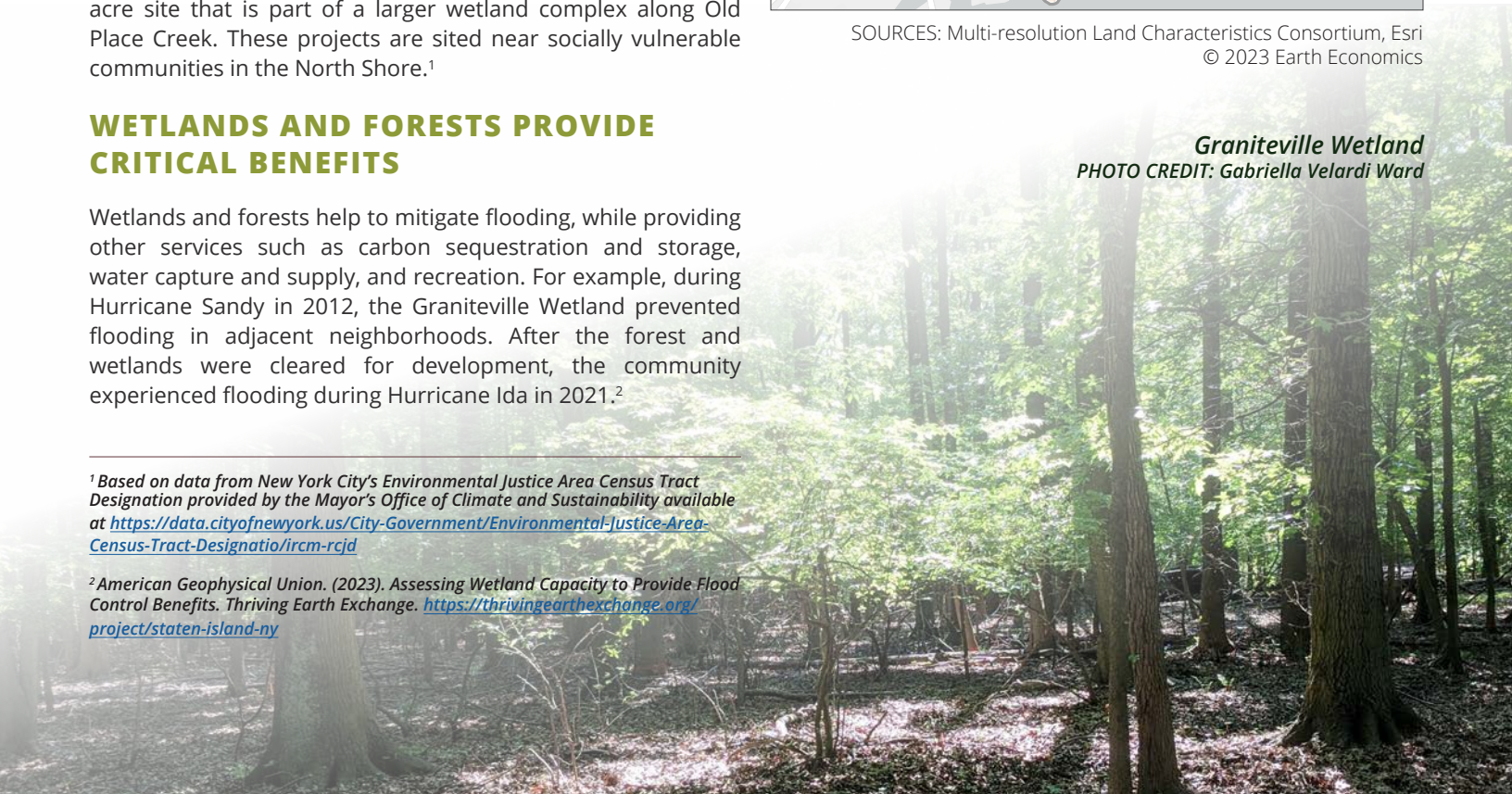
² American Geophysical Union. (2023). Assessing Wetland Capacity to Provide Flood Control Benefits. Thriving Earth Exchange. <https://thrivingearthexchange.org/project/staten-island-ny>

Wetland and Forest Loss on Staten Island



SOURCES: Multi-resolution Land Characteristics Consortium, Esri © 2023 Earth Economics

Graniteville Wetland
PHOTO CREDIT: Gabriella Velardi Ward



Staten Island Coalition of
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EARTH
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DESTROYING WETLANDS AND FORESTS IS A LOSS TO THE COMMUNITY

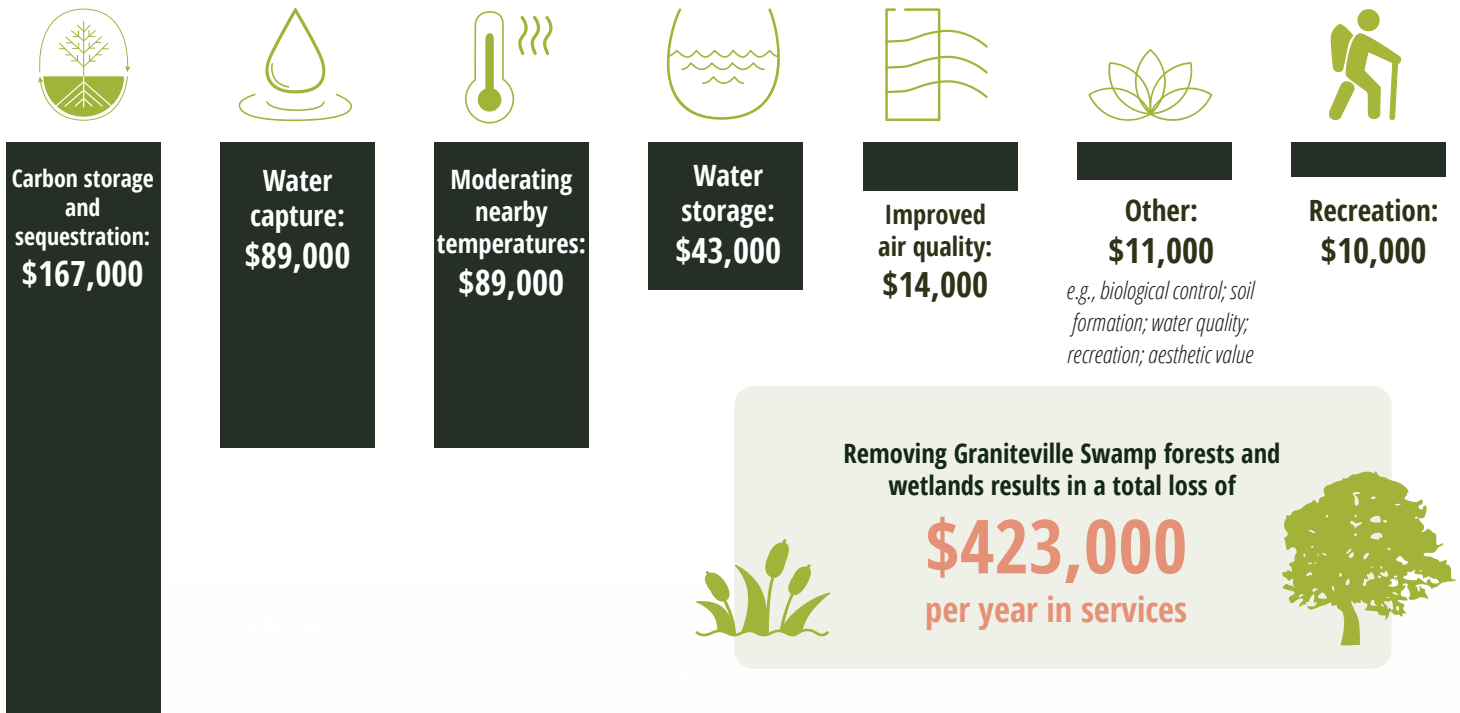
Earth Economics conducted an ecosystem services valuation of the Graniteville wetland and forest areas that were compacted for development. Earth Economics found that replacing most of the forests and wetlands with impervious surfaces leads to an annual loss of over \$423,000 in benefits to the community.

This is a conservative estimate, as it does not account for benefits and economic impacts such as flood mitigation, avoided hospitalizations, flood insurance premiums, or flood damages to buildings and infrastructure.



PHOTO CREDIT: LightHawk Conservation Flying and J. Henry Fair

Annual Loss in Services Due to Wetland and Forest Removal in Graniteville Swamp



IT IS MORE COSTLY TO RESTORE NATURAL AREAS THAN TO PROTECT THEM

Staten Island's forests and wetlands provide benefits at little to no cost to the community, unlike technological replacements that would be necessary to mitigate their loss. If these wetlands and forests are protected, they can provide these benefits in perpetuity. Protecting natural areas is often less expensive than operating, maintaining, and eventually replacing built infrastructure to manage stormwater and coastal flooding.

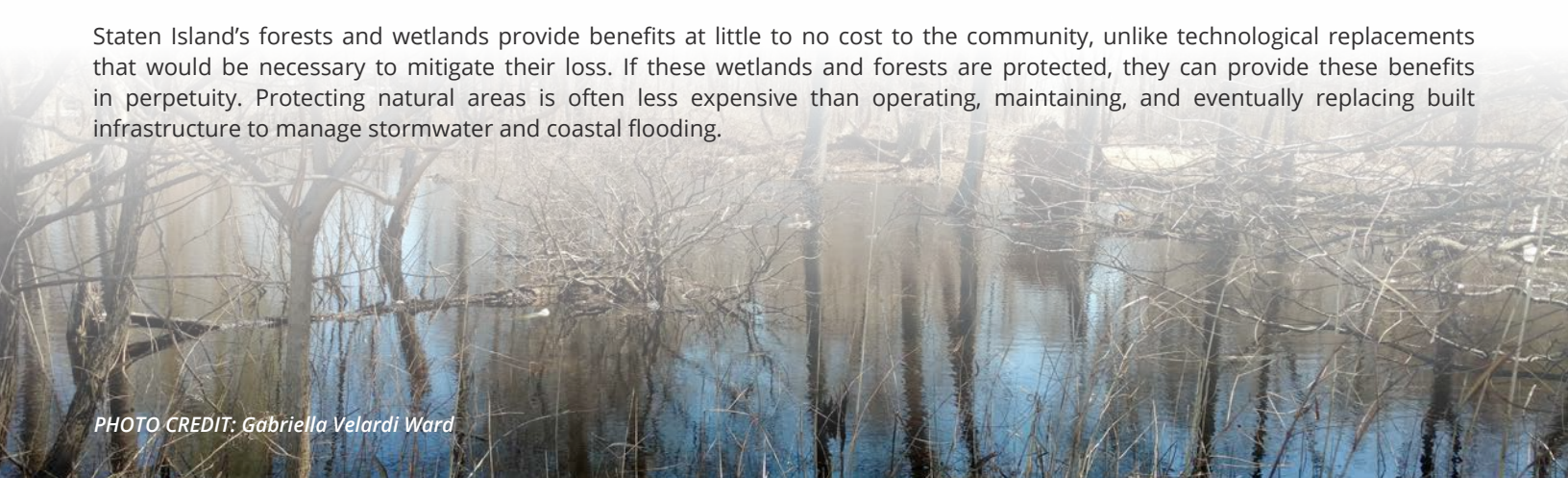


PHOTO CREDIT: Gabriella Velardi Ward