PURPOSE & NEED

The goal of the project is to reduce wave action and coastal erosion along the shoreline in Tottenville, while enhancing ecosystems, and shoreline access, use and stewardship.
The goals and objectives related to the Purpose and Need are:

- **RISK REDUCTION**
  - Attenuate wave energy;
  - Address both event-based and long-term shoreline erosion / preserve beach width; and
  - Address the impacts of coastal flooding.
- **ECOLOGICAL ENHANCEMENT**
  - Increase diversity of aquatic habitats consistent with the Hudson-Raritan Estuary
  - Plan priorities (e.g., oyster reefs and fish and shellfish habitat).
- **SOCIAL RESILIENCY**
  - Foster community education on coastal resiliency directly tied to and building off
  - The structural components of this resiliency initiative;
  - Increase physical and visual access to the water's edge;
  - Enhance community stewardship of on-shore and in-water ecosystems; and
  - Increase access to recreational opportunities.

REGULATORY FRAMEWORK

The US Housing and Urban Development grant comes in the form of Community Development Block Grant-Disaster Recovery (CDBG-DR) funding which requires compliance with the National Environmental Policy Act (NEPA). As the project is located in New York, it is also subject to the New York State Environmental Quality Review Act (SEQRA). Additionally, the technical analysis in the Draft Environmental Impact Statement (DEIS) utilizes the City Environmental Quality Review (CEQR) Technical Manual, which provides technical guidelines for conducting environmental review in New York City. These environmental review requirements generally require an agency to analyze a proposed action to determine how the proposed action affects the environment, and whether other reasonable alternatives are available that reduce, minimize or provide mitigation for significant adverse impacts. The project's environmental review process began in 2014 with public review and comment of the draft scope of work. A DEIS for the Living Breakwaters and Tottenville Shoreline Protection Projects, titled Coastal and Social Resiliency Initiatives for Tottenville Shoreline, was published on March 24, 2017 and is currently available for public review and comment (see PUBLIC COMMENT section).

Governor's Office of Storm Recovery

Stantec

SCAPE TEAM
SCAPE / LANDSCAPE ARCHITECTURE
OCEAN AND COASTAL CONSULTANTS
PARSONS BRINCKERHOFF
ARCADIS
SEARC ECOLOGICAL MARINE CONSULTING
LOT-EK ARCHITECTURE
MFS CONSULTING ENGINEERS
PRUDENT ENGINEERING
SILMAN STRUCTURAL ENGINEERS

WHAT IS A DEIS?

A DEIS or Draft Environmental Impact Statement is a comprehensive environmental study. The DEIS, among other things:

- Describes the proposed action;
- Describes the existing conditions within the study area;
- Identifies the proposed actions' purposes and need;
- Identifies project alternatives, including the no-action alternative;
- Conducts a technical analysis to identify any significant adverse impacts in various categories, such as transportation, natural resources, land use, construction impacts, noise, visual character, historic resources, and others; and
- Assesses the environmental impacts of a proposed project action, including whether the project will potentially result in any significant adverse impacts.

If any potential significant adverse impacts are identified, the DEIS will provide mitigation to address those significant adverse impacts.

PUBLIC COMMENT

Any individual, group or agency may submit written comments on the Coastal and Social Resiliency Initiatives for Tottenville Shoreline Draft Environmental Impact Statement. The public is hereby advised to specify in their comments which "notice" their comments address.
Comments should be submitted via email, in the proper format, on or before May 8, 2017 5pm EST, at:

NYSCDBG_DR_ER@nyshcr.org

Written comments may also be submitted to the following address on or before May 8, 2017 5PM EST:

Governor's Office of Storm Recovery
25 Beaver Street, 5th Floor,
New York, NY 10004.

All comments must be received on or before 5pm on May 8, 2017, or they will not be considered. If modifications result from public comment, these will be made prior to proceeding with the expenditure of funds.

GOSR will hold a public hearing **from 7:00 pm to 9:00 pm on April 26, 2017**. The hearing location is:

Public School 6
555 Page Avenue
Staten Island, NY 10307

The purpose of the public hearing is for GOSR to receive comments on the adequacy of the DEIS. GOSR will not respond to any of the comments or take action on the Proposed Activity at the hearing. Comments will be considered as part of the preparation of the Final EIS.

LIVING BREAKWATERS & TOTTENVILLE SHORELINE PROTECTION PROJECT

FOR STATEN ISLAND & RARITAN BAY

PROJECT BACKGROUND

The **Living Breakwaters** and **Tottenville Shoreline Protection projects** are designed to work together as a layered system to reduce long-term coastal erosion, attenuate storm waves, improve biodiversity and ecosystem health of near shore waters, promote stewardship, and enhance the public's experience of the shoreline.

The Living Breakwaters project, comprised of a system of ecologically-enhanced offshore breakwaters and related community facilities and programs, was initially developed by SCAPE Landscape Architecture for the Rebuild by Design Competition held by the U.S. Department of Housing and Urban Development which sought cutting edge ideas for coastal resilience in the wake of Superstorm Sandy. In June 2014, HUD awarded New York State $60 million to develop the project along the Tottenville shoreline.

The Tottenville Shoreline Protection Project (TSPP) is comprised of a series on on-shore projects including an earthen berm, dune, eco-revetment and raised edge. The TSPP was first conceived as a dune project through the NY Rising Community Reconstruction process —a community-led planning and design initiative of New York State to assist sandy-impacted communities in recovery and long-term resilience planning.

While the two projects being designed by separate design teams, they are being analyzed under one Environmental Impact Statement due to their geographic proximity, common purpose and need, and the fact that together they create a layered strategy for coastal, ecological and social resilience for the South Shore of Staten Island.

To learn more about the projects or consult the Draft Environmental Impact Statement, visit:
https://stormrecovery.ny.gov/living-breakwaters-tottenville

Governor's Office of Storm Recovery
SCAPE TEAM
Stantec

TOTTENVILLE SHORELINE PROTECTION PROJECT

The purpose of the **Tottenville Shoreline Protection Project** (TSPP) is to reduce wave action, erosion and some coastal flooding along the shoreline in Tottenville while also enhancing ecosystems, and shoreline access and use. These goals will be achieved using a site-specific approach consisting of a (1) planted earthen berm, (2) reinforced dune, (3) eco-revetment, and (4) a raised edge. The TSPP will also include wetland enhancement, shoreline plantings, and maritime forest restoration. This approach allows the design to be tailored to the various reaches of the shoreline, and respond to its specific opportunities and constraints. One key programmatic goal of the TSPP is to create an interconnected and seamless waterfront trail along the shoreline of Conference House Park, providing access to the beach and the park even at normal high tide. This trail will also provide access for Parks maintenance staff to reach areas which have been difficult to reach in the past.

LIVING BREAKWATERS

The **Living Breakwaters** is an innovative coastal green infrastructure project that aims to increase physical, ecological, and social resilience. The project area is a shallow estuary that has historically supported commercial fisheries and shell fisheries. Living Breakwaters consists of:

- System of Breakwaters: a system of near-shore breakwaters located between 730 and 1200 feet from shore, with crest elevations between 5 and 14 feet above mean sea level designed not only to reduce risk, but also to provide habitat enhancements through the specialized design of the breakwater structures and the materials used.
- Shoreline restoration: a one-time placement of sand to restore the historic 1978 shoreline alignment, from Manhattan Street to Loretto Street, where the distance between the shoreline and buildings is most narrow, and subject to erosion.
- Active oyster restoration by the Billion Oyster Project: This will include oyster restoration activities on the breakwaters post-construction as well as oyster cultivation activities (hatching, remote setting, etc.), shell collection and curing, and the installation of oyster nurseries.
- A Water Hub: a public facility to house educational programs, community stewardship activities, science and monitoring efforts, recreational program and equipment, and exhibitions related to the project, as well as stewardship of the water and the shoreline more broadly.
- Programming: including educational, stewardship, and workforce training activities related to the other project elements.

The project is taking a thematically and spatially layered approach to reduce coastal risk, restore and enhance habitats important to local ecosystems, improve waterfront access, and engage with residents through community and educational programs.

WATER ACCESS OPTION 2

WATER HUB LOCATION OPTION 2

WATER ACCESS OPTION 3

THE CONFERENCE HOUSE

CONFERENCE HOUSE PARK VISITOR CENTER

CONFERENCE HOUSE PARK (NYC DPR)

TOTTENVILLE SHORELINE PROTECTION PROJECT ELEMENTS

1

2

3

4

SHORELINE RESTORATION

OYSTER NURSERY

FLOATING DOCK

LIVING BREAKWATERS

WATER HUB LOCATION + WATER ACCESS OPTION 1

HYLAN BLVD

CLERMONT AVE

RILLOP AVE

SURF AVE

MAIN ST

CHELSEA ST

BRIGHTON ST

MANHATTAN ST

VETMAN AVE

ROCKWAY ST

LORETTO ST

SPRAGUE AVE

JOUNE AVE

BEDELL AVE

PAGE AVE

SIMONSON ST

BUTLER MANOR WOOD (NYC DPR)

MOUNT LORETTO (NYC DEC)

TOTTENVILLE POOL

PS 1 TOTTENVILLE

PROJECT ELEMENTS

EXISTING CONDITIONS

- MHW LINE (2015)
- MLW LINE (2015)
- EXISTING TRAIL SYSTEM
- PARKBOUNDARY
- SCHOOLS & COMMUNITY FACILITIES

LIVING BREAKWATERS

- BREAKWATERS
- PROPOSED SHORELINE RESTORATION
- FLOATING DOCK
- OYSTER NURSERY
- WATER HUB LOCATION AND WATER ACCESS OPTIONS
- PATH AND WAYFINDING

TOTTENVILLE SHORELINE PROTECTION PROJECT

- PROJECT (BERM, DUNE, ECO-REVETMENT, AND RAISED EDGE)
- PROPOSED PATH

0' 500' 1000' 2000'