

## RESOURCE RESTORATION PROJECT PLAN

### Securing the Future for Common Terns Nesting on Governors Island, Manhattan NYC Audubon

#### Background

The Common Tern (*Sterna herundo*) is the most widespread tern species in North America. It nests along the Atlantic Coast from South Carolina to the Canadian Maritimes, as far west as Alberta, and winters in the northern coastal region of South America. *S. herundo* recovered from being nearly hunted to extinction in the 19<sup>th</sup> century for its decorative feathers. Over the last 50 years, its western Atlantic Flyway population has declined again, and is currently listed as a threatened species in New York State. Other states within the Atlantic Flyway list the Common Tern as a seabird species that is endangered, threatened, or of special concern.

A lack of suitable nesting habitat is one of the most prevalent factors limiting the Common Tern population. Terns have a wide range of nesting habitats, including isolated beaches, dunes, marshes, small islands (natural and artificial), and on rooftops when a suitable habitat cannot be found. Further obstacles impeding successful nesting are human disturbance, animal predation, and competition from other seabirds—primarily gulls (Family: *Laridae*). Climate change is intensifying these ecological pressures, as rising sea levels, severe storms, and warmer waters are negatively affecting the populations of prey fishes, and depleting habitable areas.

While the New York Harbor, set within a bustling cityscape teeming with people and industrial activities, seems like an unlikely place for the Common Tern to nest, seabirds have been reclaiming the harbor as their home. Following the passage of the Clean Water Act, the water quality of New York's navigable waters has greatly improved, encouraging wildlife to return and nest. In New York City, Common Terns nest on marsh islands and beaches in Jamaica Bay's parklands. National Park Service staff at Gateway National Recreation Area and New York City Parks and Recreation staff on the Rockaways monitor terns nesting on those sites. Common Terns also nest on the concrete slabs of dilapidated piers on Governors Island, a 172-acre former military island that became a park in 2003. New York City Audubon staff have been monitoring that nesting colony site since 2012, and banding the terns since 2013.

Little is known about the migratory and wintering behavior of the New York City Common Tern population with respect to the mid-Atlantic population. A bird tagged in Argentina nested on Governors Island in 2015, which offers a tantalizing bit of data on migratory routes. More research needs to be done to better understand the extent of tern migration.

While the Governors Island piers have provided nesting sites for the birds since around 2010, their continued ability to provide safe nesting sites is not guaranteed. In 2013,

part of one of the piers partially collapsed into the channel. In 2015, the rest of it collapsed.

As rising seas and urbanization continue to constrict seabird nesting habitats along the East Coast, urban tern colonies are becoming increasingly important to the overall conservation of the Atlantic Flyway population. Successful provision of suitable New York City habitat will support conservation research efforts in other coastal urban areas. Moreover, New York's Common Terns are appealing ambassadors for urban biodiversity – especially on Governors Island, where the protective parents can raise their hatchlings while being appreciated from a safe distance by the public. Creating a high profile protected environment will raise public awareness and support for seabird conservation.

### Project Description

Since its foundation in 1979, New York City Audubon has a rich history of working towards the conservation of waterfowl and seabirds.

New York City Audubon has been monitoring and banding Common Terns on Governor's Island since June 2013. Approximately 120 pairs annually nest on the two decommissioned piers, and some have been found on a third active pier which extends into Buttermilk Channel. The birds nesting on the third, active pier have been a focus of research for NYC Audubon. In 2014, Audubon enhanced the nesting habitat, which resulted in a 33% increase of nesting pairs. This population growth was short-lived, as just two years later American Herring Gulls (*Larus smithsonianus*) outcompeted the Common Terns, completely excluding the terns from that pier. To remedy this, gull deterrents were installed and habitat enhancements were made, and in 2017, thirty-three pairs returned to the pier to nest.

This project will assess the dynamics and demographics of the Governors Island Common Tern population, and will begin to evaluate their role in the greater regional population. This colony will be accessible to New Yorkers remotely through a webcam and directly through NYC Audubon's annual "It's Your Tern" festival and outreach event.

### Approach

#### **1) Expand current management efforts to increase the nesting colony at Governors Island.**

Of the two decommissioned piers where Common Terns nest, one is inaccessible for management, but the other (Lima Pier) can easily support 66 to 100 pairs – up to triple the current number on that pier. Intermittent use of the pier by The Trust for Governors Island has restricted the colony to a small section. The proposed objective aims to improve and expand viable nesting habitat on Lima Pier by: 1) collaborating with the Trust to dedicate more pier space to the colony; 2) using gull exclusion grids and a gull-

chasing dog to reserve the location for tern nesting; 3) covering more of the cement substrate with crushed oyster shells as a nesting material; and 4) attracting more terns by augmenting decoys with audio lures of active tern colonies. Audubon also proposes to install a high-power tilt-and-pan nest cam on the inaccessible pier to facilitate monitoring the terns and give the public a closer look at our urban wildlife.

**2) Track and map Common Terns (adult and hatching year birds) from the harbor colonies to determine their migration routes and wintering sites.**

This objective will identify threats as well as potential conservation partners in the places these terns visit. To achieve this, New York City Audubon will: 1) Attach geolocators (devices that determine the daily latitude and longitude of the bird for a year) to 10 adult nesting Common Terns on Governors Island; 2) Attach NanoTags (devices that transmit a unique frequency for each bird to datalogger towers along the Eastern Seaboard, to record where the terns travel and how long they stay at stopover sites) to 10 untagged adult terns; and 3) continue banding Common Tern adults and young-of-the-year on Governors Island and expand our ongoing banded bird re-sighting efforts to include birds staging for migration in wetlands of Staten Island and Jamaica Bay.

**3) Analyze demographic and population data on Common Terns nesting on manmade and natural islands in an urban estuary (NYC) in relation to that of a remote island located in the Atlantic Flyway.**

The third objective of this project is to add context to the collected data about Governors Island nesting by comparing it to a non-urbanized island in the flyway. Using standardized protocols for data collection, the reproductive success and population trends of several locations will be compared to better understand constraints and trends across the flyway. Dr. Elizabeth Craig, The University of New Hampshire, has similar data for the Isle of Shoals, off New Hampshire's coast. Data analysis from this project will be subject to peer review before publication in a scientific journal.

*Project Budget, Schedule and Reporting*

NYC Audubon is requesting a budget of \$71,000 for two field seasons – 2018/19.

Personnel	\$37,494
Supplies	\$6,700
Equipment	\$15,000
Travel	\$4,200
Administrative	<u>\$7,606</u>
TOTAL	\$71,000

Following each field season, NYC Audubon will provide a short summary of expenditures to date and work completed to Jared Reed ([jared.reed@dec.ny.gov](mailto:jared.reed@dec.ny.gov)) at the New York State Department of Environmental Conservation.

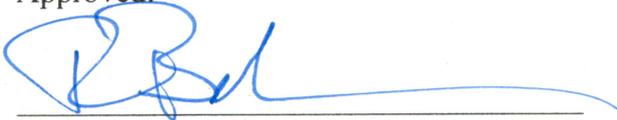
### **RESPONSE TO PUBLIC COMMENTS RECEIVED**

No comments on this Proposal to Spend Settlement Funds were received within the 30-day comment period.

**Final Con-Ed Farragut Resource Restoration Project Plan Approval**  
Governors Island, New York County, New York

By the signatures below, the Con-Ed Farragut Resource Restoration Project Plan is hereby approved.

Approved:



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Thomas S. Berkman  
Deputy Commissioner and General Counsel

New York State Department of  
Environmental Conservation

OGC BUCKSLIP

TO: NRD Website, Consolidated Edison Company, Region 2

Document(s) attached: **Resource Restoration Project Plan**

<i>EDMS-626271</i>	NAME	INITIALS	DATE
The attached is submitted for your signature by	Jared Reed	JR	9/4/18
It has been checked and approved by	Andy Guglielmi	AGG	9/4/18
It has been checked and approved by	Dolores Tuohy	DT mediator	9/4/18
It has been checked and approved by	Scott Crisafulli	SC	9/8/18
It has been checked and approved by	Tom Berkman	TBR	9/10/18
It has been checked and approved by			
It has been checked and approved by			
It has been checked and approved by			

Special Instructions:

Transmitted by: Jared Reed

Date: September 4, 2018

**Please return to Melissa Evans for distribution. Thank you**