



# ROCKAWAY RESILIENCY PROJECTS & FEMA FUNDING

PS/MS 42 Robert Vernam School

December 12, 2016

# TONIGHT'S MEETING

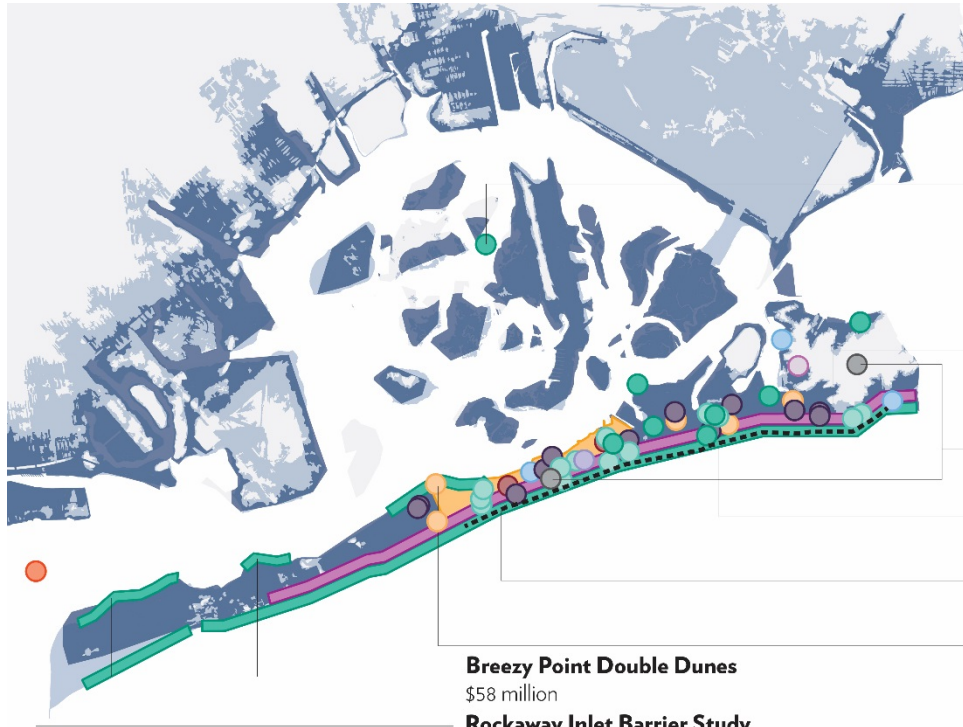
- Anticipate excess Rockaway Boardwalk funds
- Mayoral commitment to use funds for resiliency projects in Rockaways
- Submitted Alternate Projects need to be approved by FEMA prior to the completion of Rockaway boardwalk (Anticipated completion date is Memorial Day 2017)



## TONIGHT

- Present potential projects
- Get your feedback!

# ROCKAWAYS RECOVERY & RESILIENCY INVESTMENTS



**Rockaway Reformulation (Jamaica Bay)**

**Rockaway Peninsula Beach Nourishment & Dune Installation**

\$43 million

**Rockaway Commercial Corridors**

\$15 million

**Rockaway Reformulation (Atlantic beaches)**

\$236 million

**Rockaway Boardwalk**

\$342 million\*

**Beach Channel Drive Bulkhead Repair**

\$37 million

**Breezy Point Double Dunes**

\$58 million

**Rockaway Inlet Barrier Study**

**NYCHA:** \$562 million

**Beach Channel High School:** \$43,000,000

**PS 105, 106, 43 (& Annex):** \$61,000,000

**PS/MS Belle Harbor School:** \$20,000,000

**Temple Beth Elementary School:** \$10,000,000

**PS/MS 042, MS 180, PS 183:** \$45,000,000

**Waterside Children's Studio School:** \$8,000,000

**Goldie Maple Academy:** \$17,000,000

**100th Precinct Reconstruction:** \$2,000,000

**Engine 268, 266, 265, 329:** \$2,196,000

**Queens Sanitation District 14 Facility:** \$5,000,000

**Rockaway Ambulatory Surgical Center:** \$10,000,000

**Queens Borough Public Libraries:** \$9,000,000

**Day Care Centers:** \$750,000

**Rockaway Beach Sports Area:** \$16,500,000

**75th St Maintenance Garage:** \$840,000

**DPR Sandy Emergency Work:** \$48,000,000

**Emergency Protective Measures at Beaches & Parkway:** \$1,000,000

**Beachfront Parks Asset Repairs & Replacement:** \$12,000,000

**Beach Open-Up, Pre-fab Modular Units:** \$91,500,000

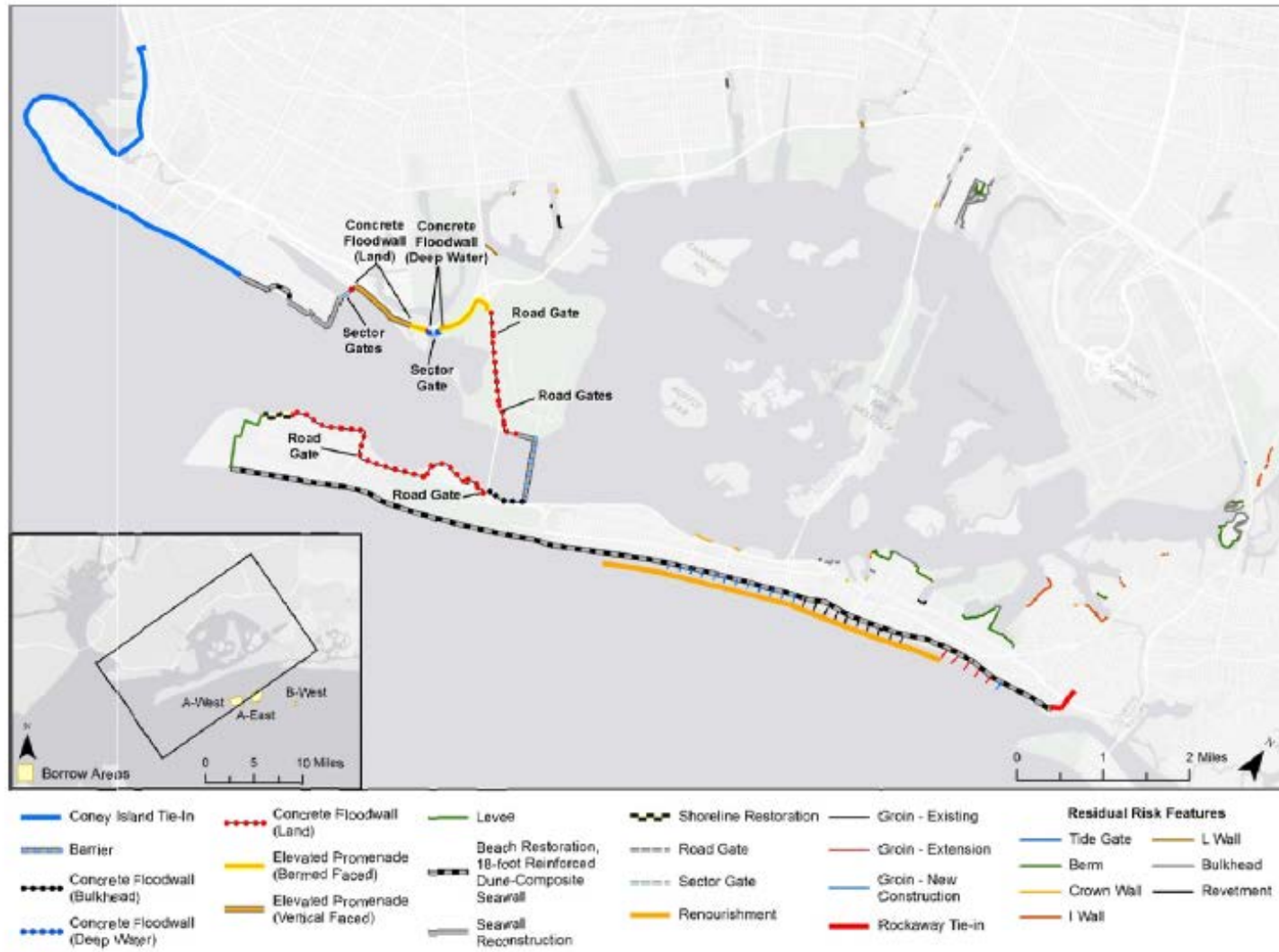
**Beach Open-Up, Rockaway Entry Islands:** \$56,500,000

**Reconstruction of Play Equipment:** \$3,000,000

**Wave Attenuator Brant Point:** \$820,000



# PROPOSED USACE ROCKAWAY REFORMULATION





# FEMA SECTION 428 PILOT PROGRAM

- The FEMA 428 program allows for anticipated savings from a FEMA 428 project to be applied to Alternate Projects
- NYS and FEMA determines eligibility of projects and approves use of underrun funding

## FEMA ELIGIBILITY

### ELIGIBLE

- Raised Shoreline Work
- Parks and Recreational Facilities
- Buildings
- Elevation of Structures
- Engineered Natural Structures

### NOT ELIGIBLE

- Landscaping projects:
  - New Trees
  - Plantings
  - Lawns
- Buyouts
- Studies

# PROJECT CONSIDERATIONS

Projects build off existing studies:

- HPD Resilient Edgemere Initiative
- Rockaway Parks Conceptual Plan

**Project Considerations:**

## Resiliency

- Protect neighborhoods from tidal flooding
- Environmental restoration
- Improve access/activate waterfront

## Recovery

- Restore/replace facilities directly lost during Hurricane Sandy

## Community

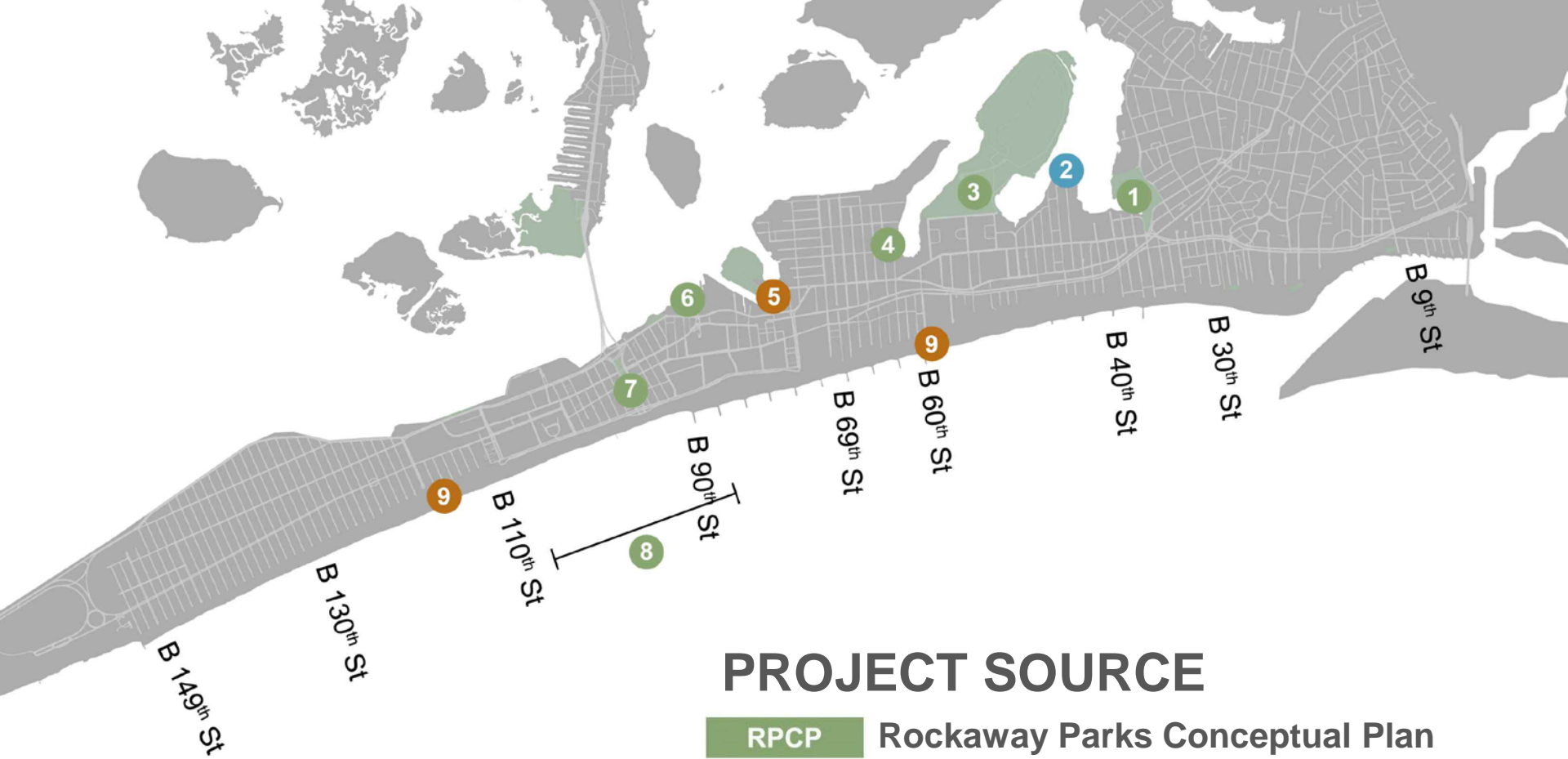
- Provide recreational or community amenities/priorities

## Public Feedback



### CONSIDERATIONS

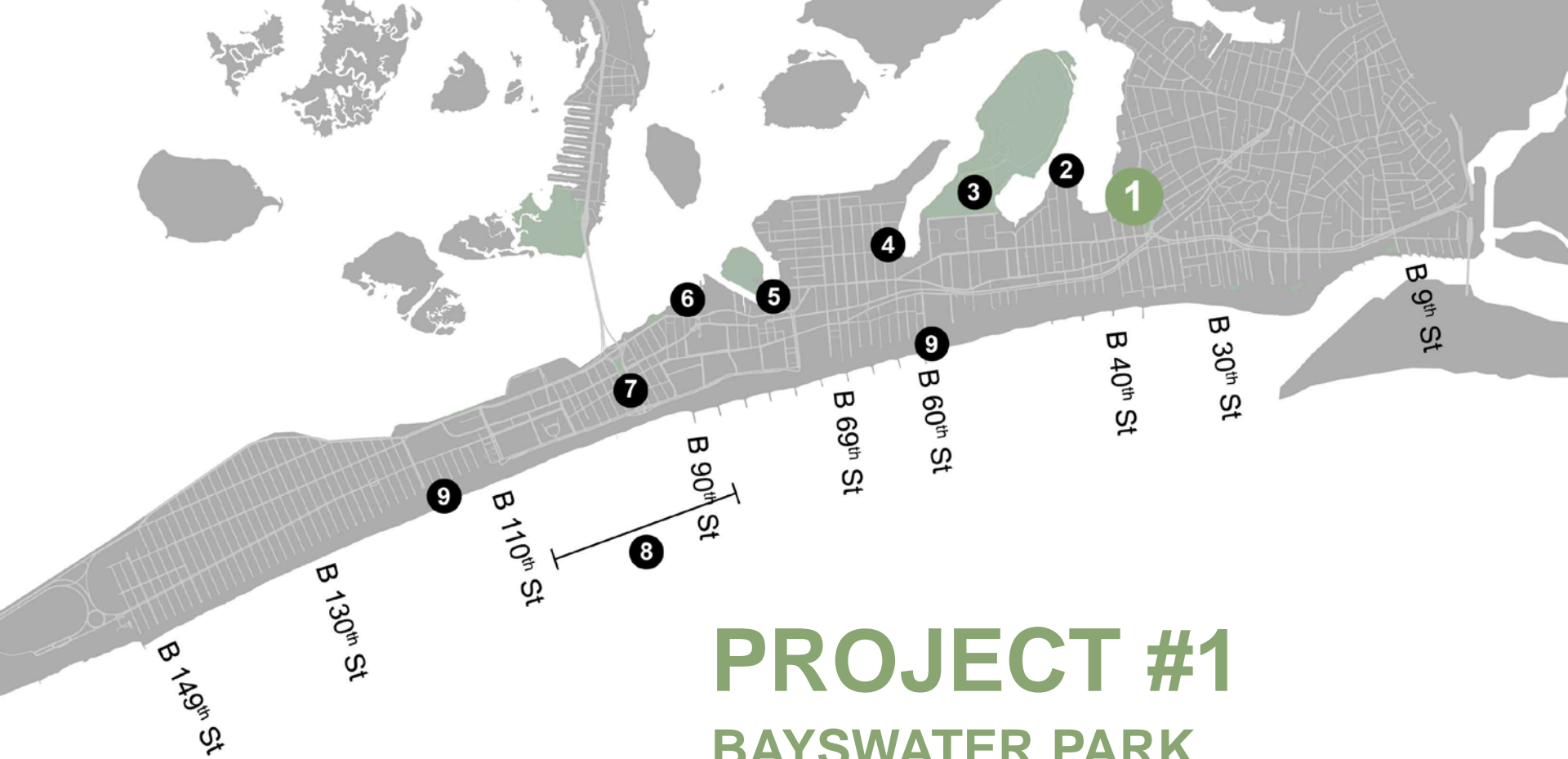
- ☐ Does not meet
- ☒ Partially meets
- ☐ Fully meets



## PROJECT SOURCE

RPCP	Rockaway Parks Conceptual Plan
RE	Resilient Edgemere Plan
DPR	NYC Parks





# PROJECT #1

## BAYSWATER PARK

Renovate community park

\$50M - \$60M



NYC Parks

**NYC**

Mayor's Office of  
Recovery & Resiliency

Projects presented geographically east to west

# PROJECT #1

## BAYSWATER PARK

### Existing Bayswater Park



# PROJECT #1

## BAYSWATER PARK

### Resiliency Features:

- Raised Berm with Trail
- Permeable Pavement
- Stormwater Retention
- Shoreline Bank Stabilization
- Wetland and Coastal Forest Restoration





# PROJECT #1

## BAYSWATER PARK

### Community Features:

- Athletic Fields
- Play Area
- Water Feature
- Public Plaza
- Running Track
- Kayak Launch
- Refurbished Comfort Station
- Sport Courts





## PROJECT #2

### RAISE SHORELINES EDMERE

Protection against sea level rise  
and tidal flooding

\$20M - \$30M



NYC Parks

**NYC**

Mayor's Office of  
Recovery & Resiliency

Projects presented geographically east to west



## PROJECT #2

# RAISE SHORELINES EDGEMERE

Flooding in Edgemere (February 2016)





# PROJECT #2

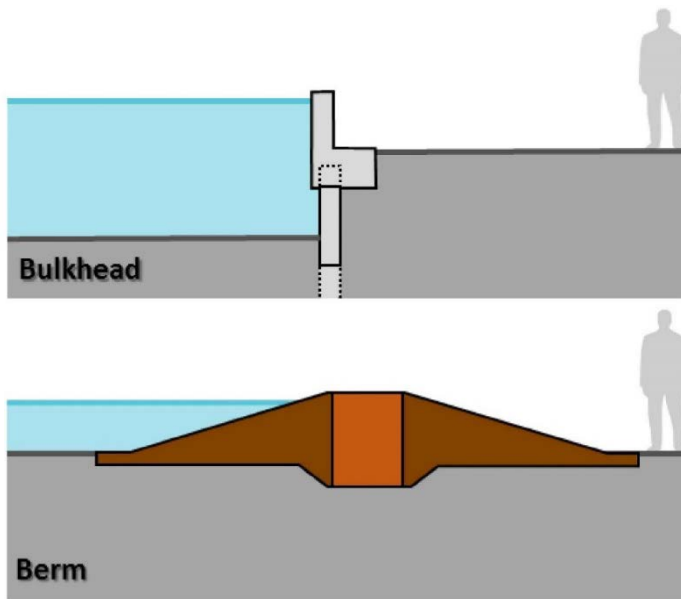
## RAISE SHORELINES EDGEMERE

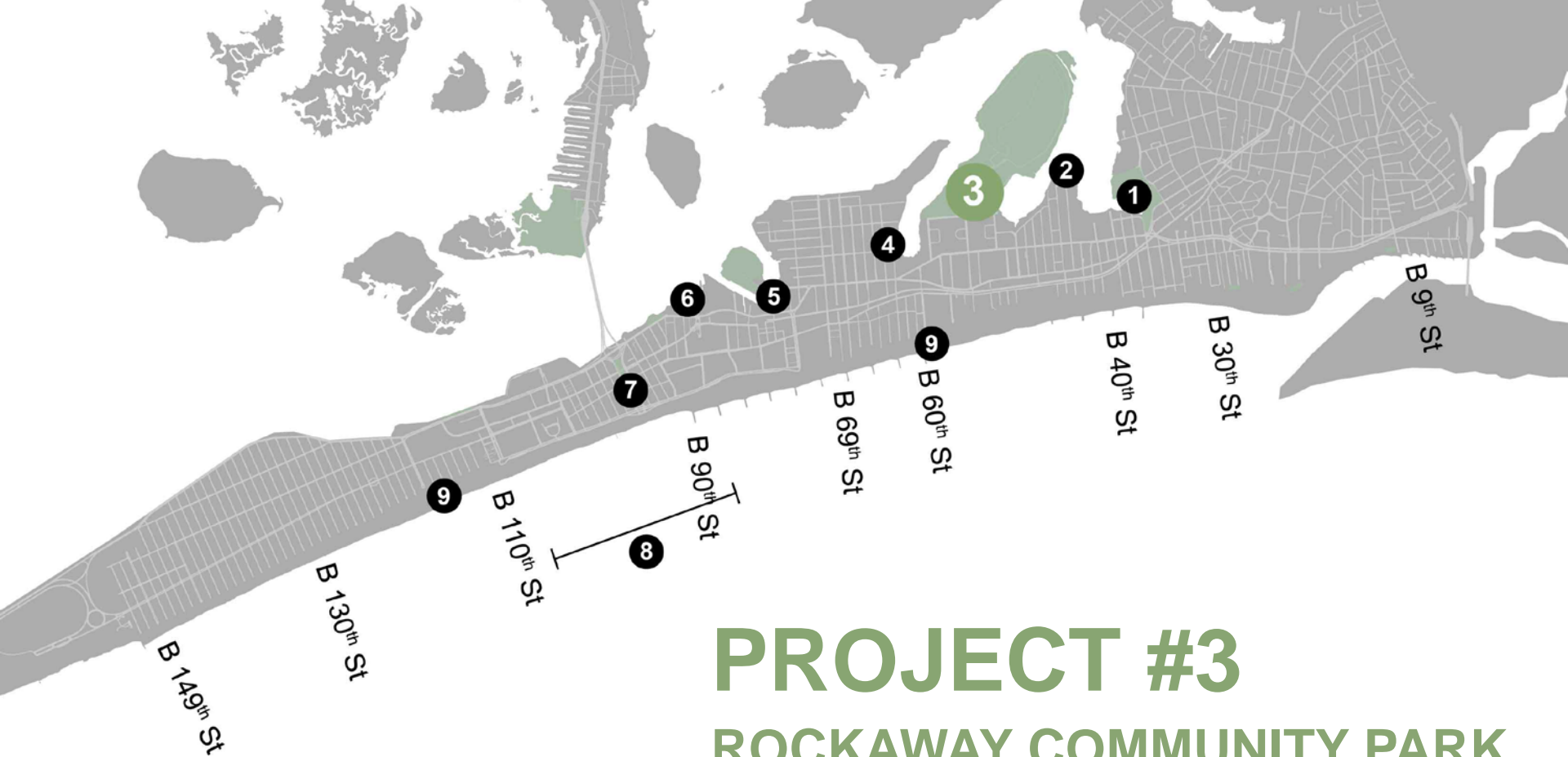
### Resiliency Features:

- Vegetated berm along perimeter of peninsula
- New bulkhead at northern tip of peninsula
- Drainage study to address nuisance flooding

### Community Benefit:

- Reduced flooding nuisance





# PROJECT #3

## ROCKAWAY COMMUNITY PARK

Renovate community park

\$40M - \$50M



NYC Parks

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# PROJECT #3 ROCKAWAY COMMUNITY PARK

## Existing Rockaway Community Park





# PROJECT #3

## ROCKAWAY COMMUNITY PARK

### Resiliency Features:

- Raised berm along west & east edges of park
- Shoreline Bank Stabilization
- Wetland Restoration



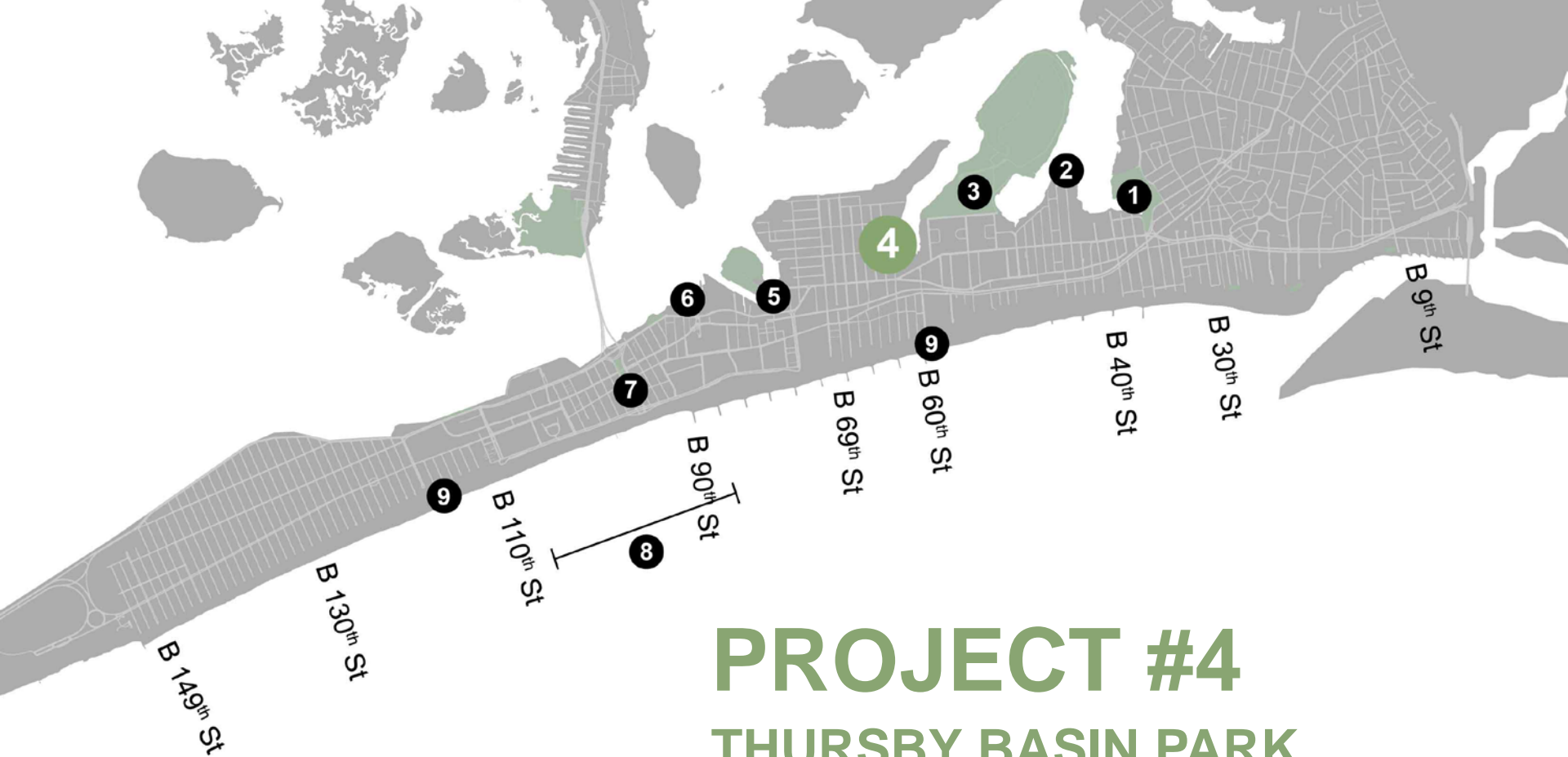
# PROJECT #3

## ROCKAWAY COMMUNITY PARK

### Community Features:

- Athletic Fields
- Skate Park
- Picnic Area
- Comfort Station
- Game Tables
- Kayak Launch
- Sport Courts





# PROJECT #4

## THURSBY BASIN PARK

Create new waterfront park

\$20M - \$30M



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# PROJECT #4

## THURSBY BASIN PARK

Existing Thursby Basin Park Site





# PROJECT #4 THURSBY BASIN PARK



# PROJECT #4

## THURSBY BASIN PARK

### Community Features:

- Sports Courts
- Play Area
- Water Feature
- Kayak Launch





# PROJECT #5

## ROCKAWAY OPERATIONS HQ

**Reconstruct Parks' maintenance  
and operations facility**

**\$20M - \$30M**



NYC Parks

**NYC**

Mayor's Office of  
Recovery & Resiliency

Projects presented geographically east to west



# PROJECT #5

## ROCKAWAY OPERATIONS HQ



DPR

Resiliency



Recovery



Community



# PROJECT #5

## ROCKAWAY OPERATIONS HQ



### Community Benefits:

- Services over 130 parks properties in Rockaways and Broad Channel
- Provides emergency response services during storm season



# PROJECT #5

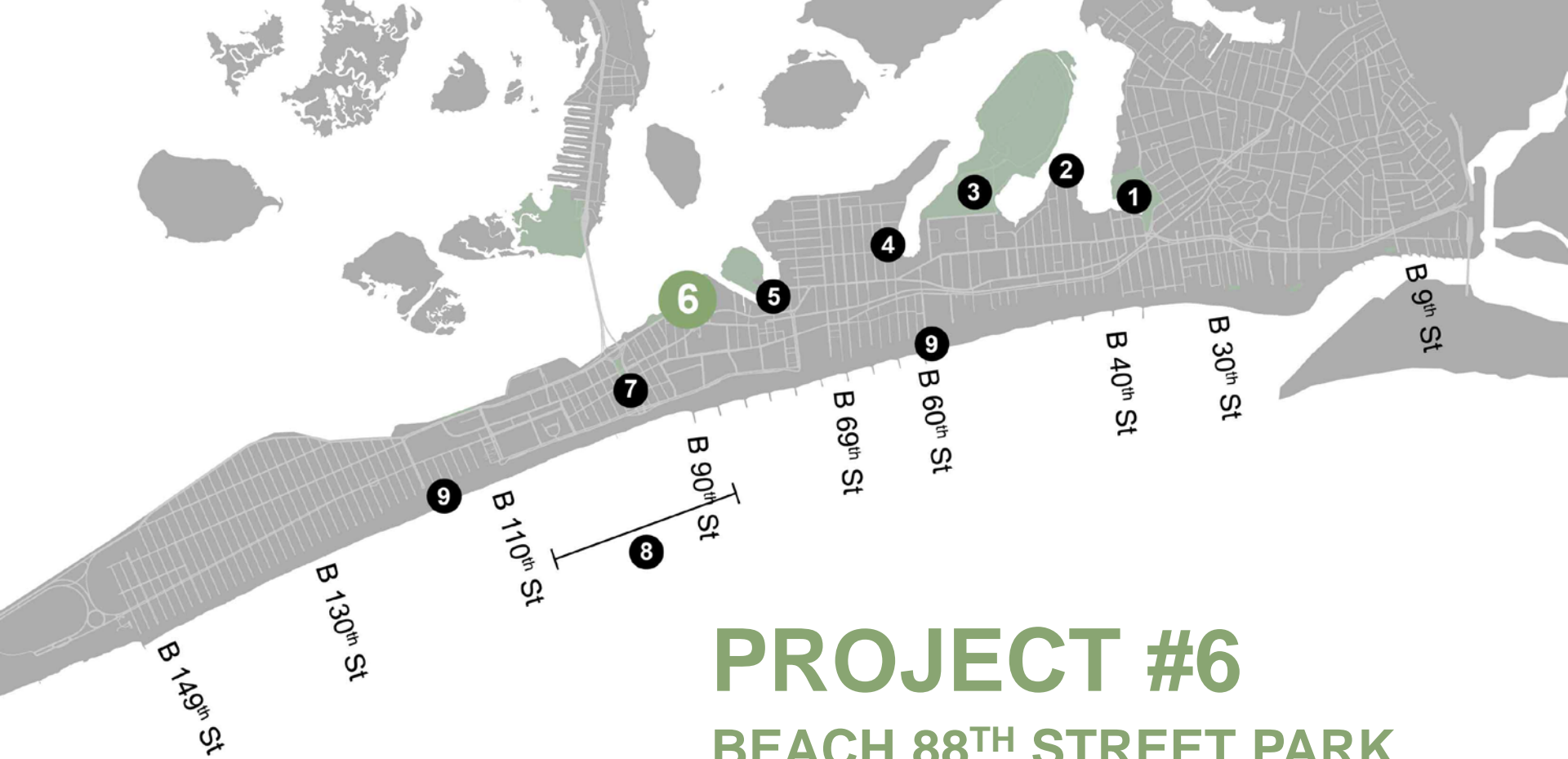
## ROCKAWAY OPERATIONS HQ

### Resiliency/Recovery Features:

- Reconstruct and elevate whole facility







# PROJECT #6

## BEACH 88<sup>TH</sup> STREET PARK

Create new waterfront park

\$40M - \$50M

# PROJECT #6 BEACH 88<sup>TH</sup> STREET PARK

Existing Beach 88<sup>th</sup> Street Park Site

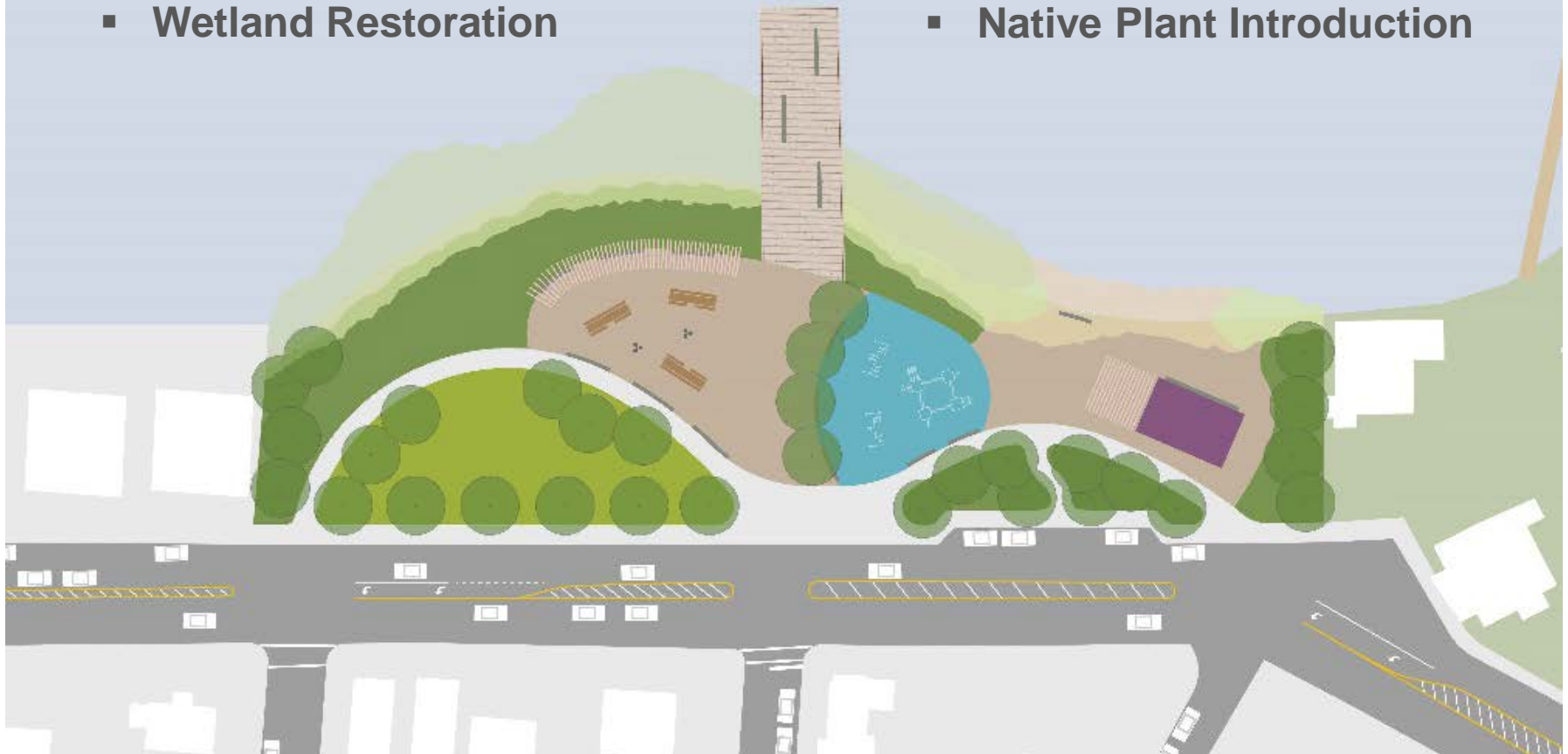


# PROJECT #6

## BEACH 88<sup>TH</sup> STREET PARK

### Resiliency Features:

- Seawall/raised berm
- Wetland Restoration
- Invasive Species Removal
- Native Plant Introduction





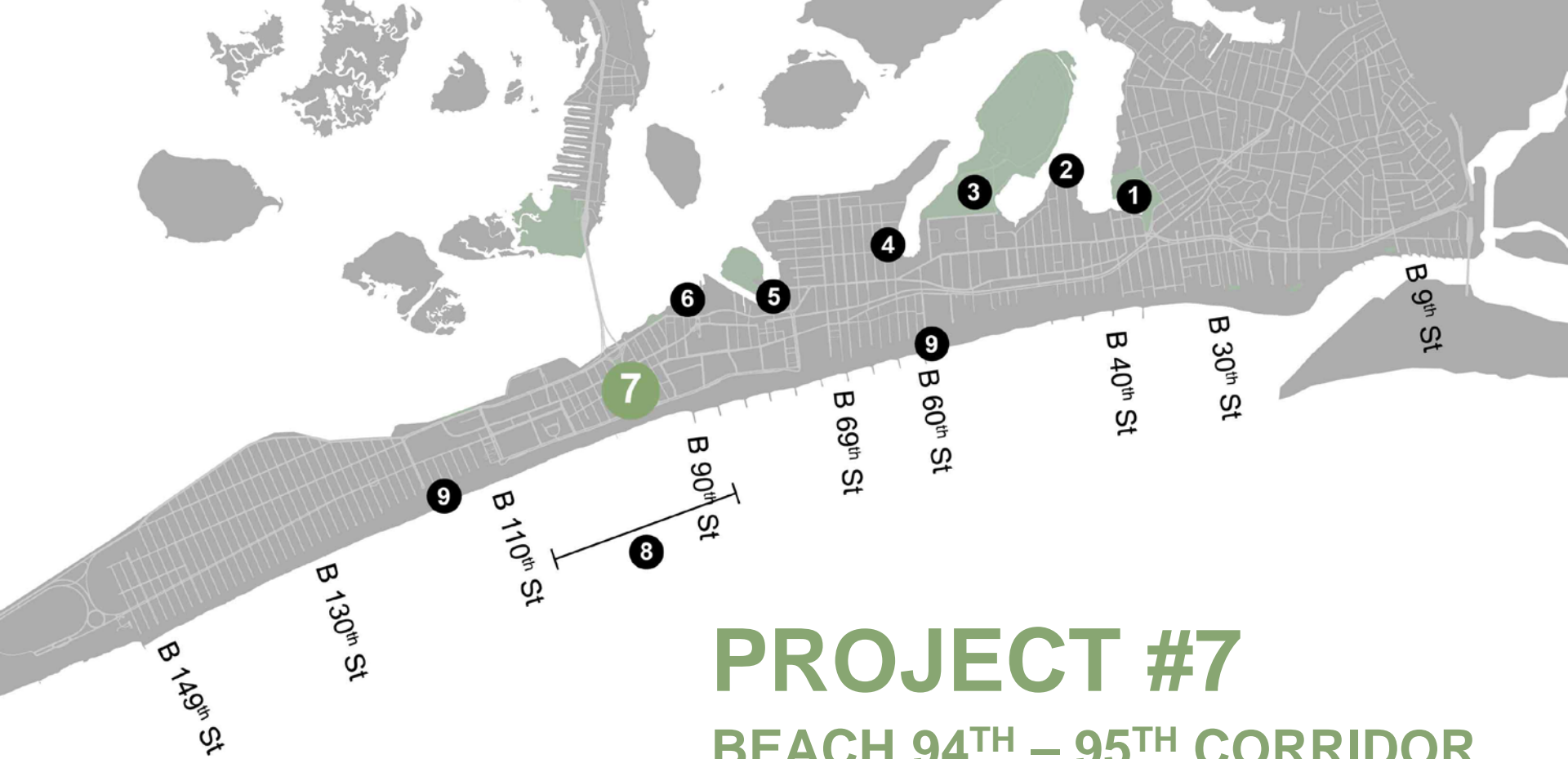
# PROJECT #6 BEACH 88<sup>TH</sup> STREET PARK



## Community Features:

- Comfort Station
- Kayak Dock
- Shade Structure
- Picnic Seating
- Play Area





# PROJECT #7

## BEACH 94<sup>TH</sup> – 95<sup>TH</sup> CORRIDOR

**Gateway corridor to Rockaways**

**\$20M - \$30M**



NYC Parks

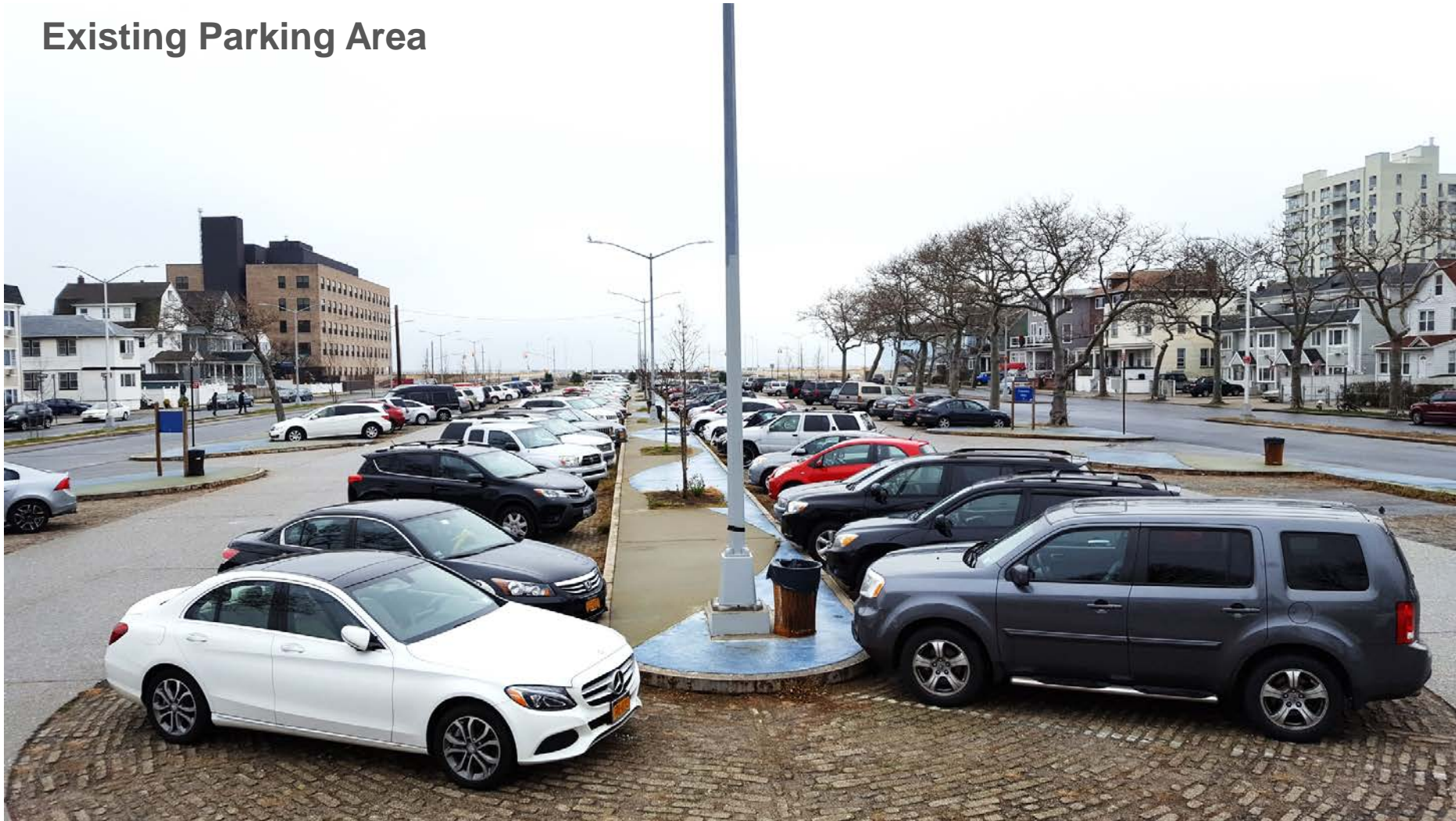
**NYC**

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# PROJECT #7 BEACH 94<sup>TH</sup> - 95<sup>TH</sup> CORRIDOR

## Existing Parking Area





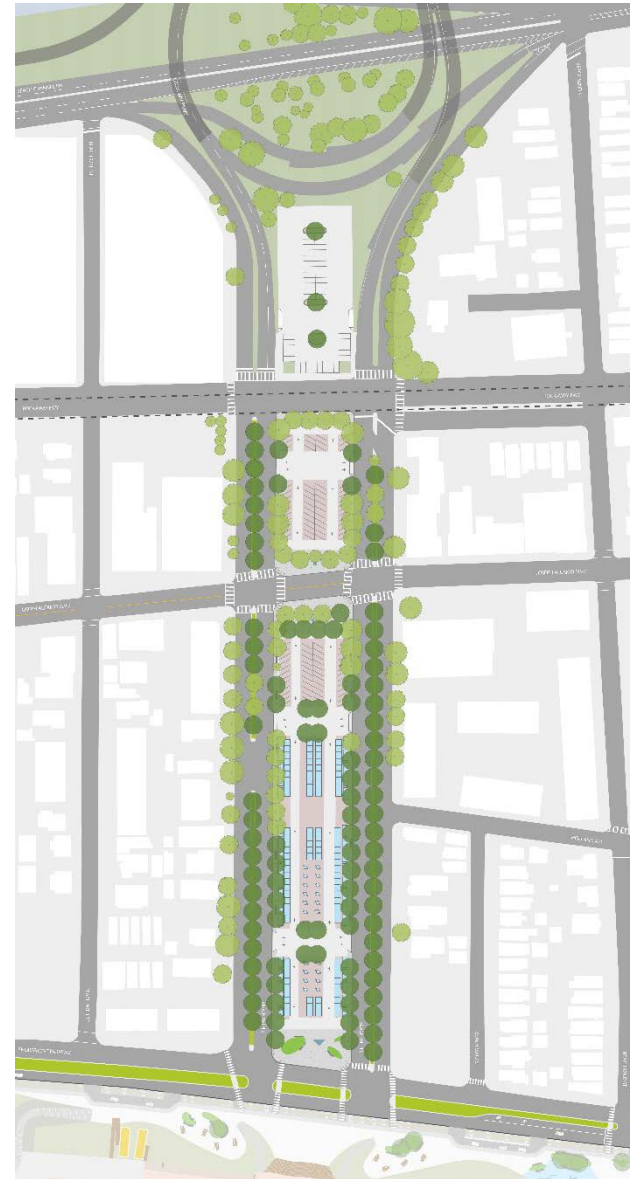
# PROJECT #7 BEACH 94<sup>TH</sup> - 95<sup>TH</sup> CORRIDOR

## Resiliency Features:

- Permeable Pavement
- Bioswales to Absorb Stormwater
- New Street Trees

## Community Uses:

- Markets
- Festivals/Events
- Café Seating





# PROJECT #8

## SHORE FRONT PARKWAY REC ZONE

Rebuild recreation areas

**\$20M - \$30M**

# PROJECT #8

## SHORE FRONT PARKWAY REC ZONE

Existing Shore Front Parkway





# PROJECT #8

## SHORE FRONT PARKWAY REC ZONE

### Recently Completed Roller Hockey Rink



# PROJECT #8

## SHORE FRONT PARKWAY REC ZONE

### Recovery & Community Amenities:

- Performance Space
- Multi-Purpose Athletic Field
- Rock Climbing & Adventure Course
- Dog Run
- Playground with Water Feature
- Labyrinth and Seating Area





# PROJECT #8

## SHORE FRONT PARKWAY REC ZONE



Example of Multi-Purpose Athletic Field



Example of Rock Climbing Structure





# PROJECT #9

## SHORE FRONT COMFORT STATIONS

**Build new comfort stations at  
Beach 116<sup>th</sup> and Beach 59<sup>th</sup>**

**\$30M - \$40M**

Projects presented geographically east to west

# PROJECT #9

## SHORE FRONT COMFORT STATIONS

### Resiliency Features:

- Buildings and utilities elevated to 500-year flood plain



# PROJECT #9

## SHORE FRONT COMFORT STATIONS

Decommissioned Below-Ground  
Beach 116<sup>th</sup> Street Comfort Station





# NEXT STEPS

- **Incorporate Community Feedback**
- **Submit to FEMA**
- **FEMA Approval**
- **Secure Additional Funds**
- **Project design**

# QUESTIONS?

An aerial photograph of a coastal region, likely in New York City. The image shows several green, tree-covered islands and peninsulas in the water. A city skyline is visible in the background, with a prominent bridge or pier structure extending into the water. The foreground shows a sandy beach and the ocean.

**Please submit comments and ideas to  
Alexander.Maureau@parks.nyc.gov  
by December 20<sup>th</sup>, 2016.**

**THANK YOU!**