

# HABITAT RESTORATION PANEL

## Two States: One Bay

June 12, 2015



DEBBIE MANS, BAYKEEPER & EXECUTIVE DIRECTOR  
NY/NJ BAYKEEPER

PETER WEPPLER, CHIEF, ENVIRONMENTAL BRANCH  
US ARMY CORPS OF ENGINEERS

CARL ALDERSON, MARINE HABITAT RESTORATION SPECIALIST  
NOAA



New York - New Jersey  
Harbor & Estuary Program  
[www.harborestuary.org](http://www.harborestuary.org)

**HUDSON RIVER FOUNDATION**  
for Science & Environmental Research, Inc.



# Habitat Restoration: An Introduction



DEBBIE MANS, BAYKEEPER & EXECUTIVE DIRECTOR  
NY/NJ BAYKEEPER

## Two States: One Bay

June 12, 2015



New York - New Jersey  
Harbor & Estuary Program  
[www.harborestuary.org](http://www.harborestuary.org)

**HUDSON RIVER FOUNDATION**  
for Science & Environmental Research, Inc.



# Opportunities

3

- Large sub-region
- Abundant local, state, and federal open space and park land
- Natural shoreline



Lake Lefferts: Monmouth County



New York - New Jersey  
Harbor & Estuary Program  
[www.harborestuary.org](http://www.harborestuary.org)

**Two States: One Bay**  
June 12, 2015



# Challenges

4

- Lack of attention and restoration activity
- Competition with development needs
- Inconsistent state policies
- Regulatory and policy obstacles to restoration



# Hudson-Raritan Estuary (HRE) Feasibility Study Environmental Restoration Program



PETER WEPPLER  
LISA BARON  
U.S. ARMY CORPS OF ENGINEERS  
NEW YORK DISTRICT

**Two States: One Bay**

June 12, 2015



New York - New Jersey  
Harbor & Estuary Program  
[www.harborestuary.org](http://www.harborestuary.org)

**HUDSON RIVER FOUNDATION**  
for Science & Environmental Research, Inc.



# Hudson-Raritan Estuary (HRE) Feasibility Study Environmental Restoration Program



- Broad study authority (1999) to evaluate ecosystem restoration within the entire Port of NY/NJ



- Restores wetland habitat and function, improves water quality, and quality of life for the Metropolitan Regions' 22 Million citizens

- Sponsor: Port Authority NY/NJ

- Cost: \$19,000,000

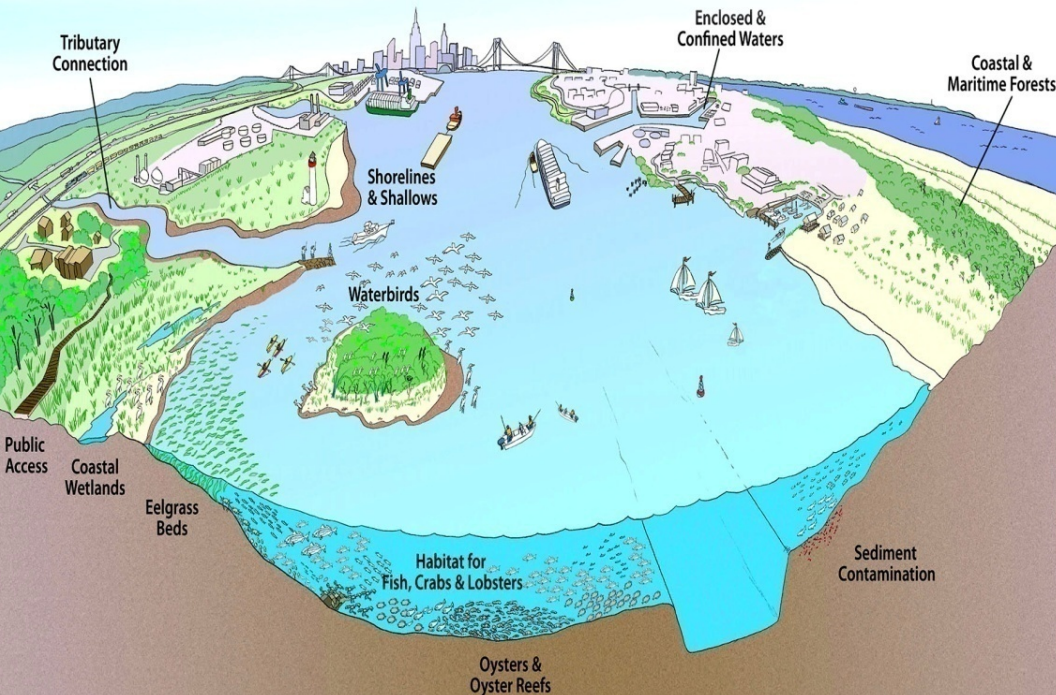
- Comprehensive Restoration Plan (2009/Updated 2015)

- Draft Feasibility Study Report (2016)



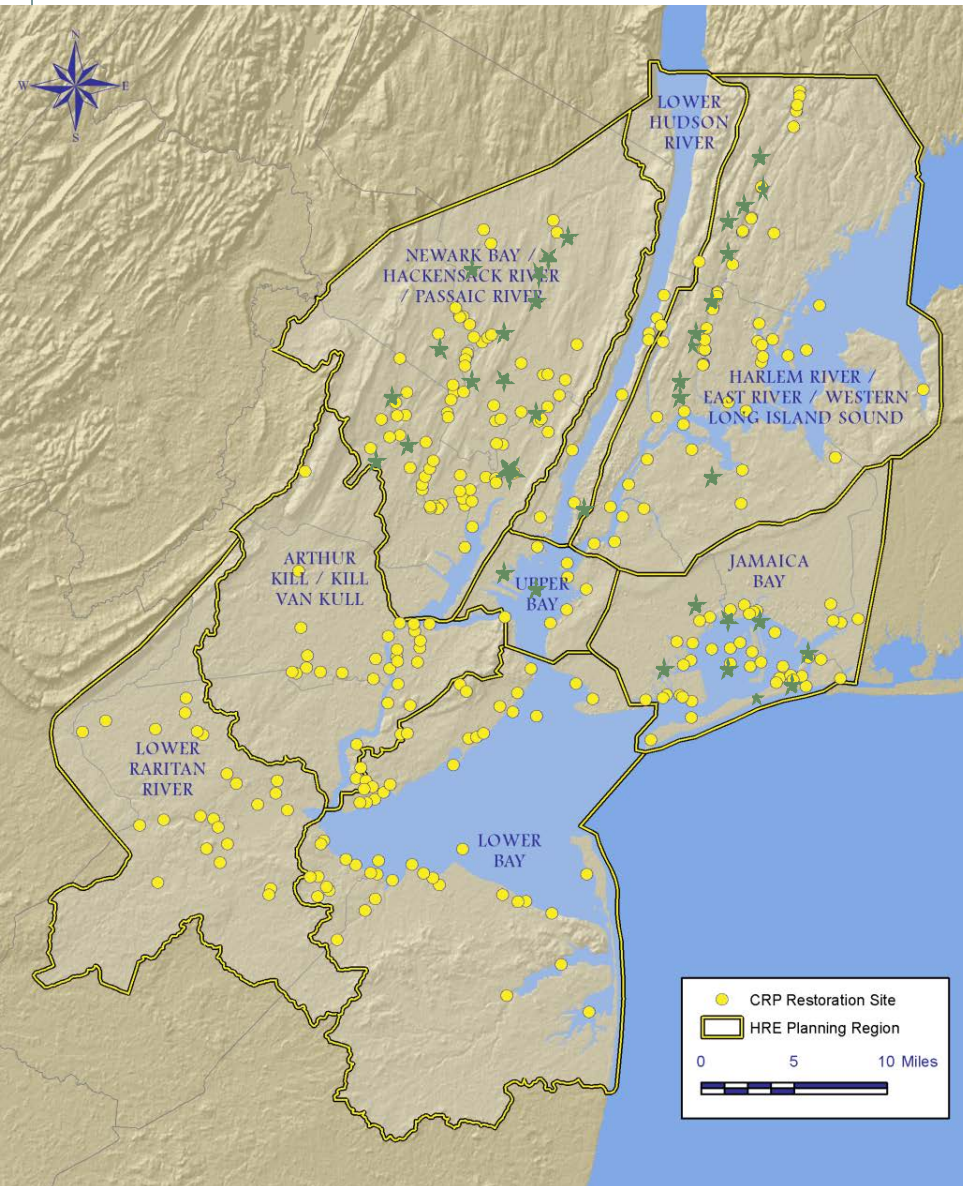
# HRE Comprehensive Restoration Plan

- **SHARED** Vision, Master Plan and Blueprint for a future restored estuary
- Collaboration among 129 organizations
- Adopted by the NY/NJ Harbor Estuary Program (HEP)
- Establishes Priority Restoration Goals or Targets: Target Ecosystem Characteristics



- ✓ Aligns regional restoration activities
- ✓ Identifies > 280 Restoration Opportunities
- ✓ Not just the USACE's Plan
- ✓ Model for large-scale ecosystem restoration programs
- ✓ Serves as living document and is actively managed to track progress (HEP Restoration Work Group)

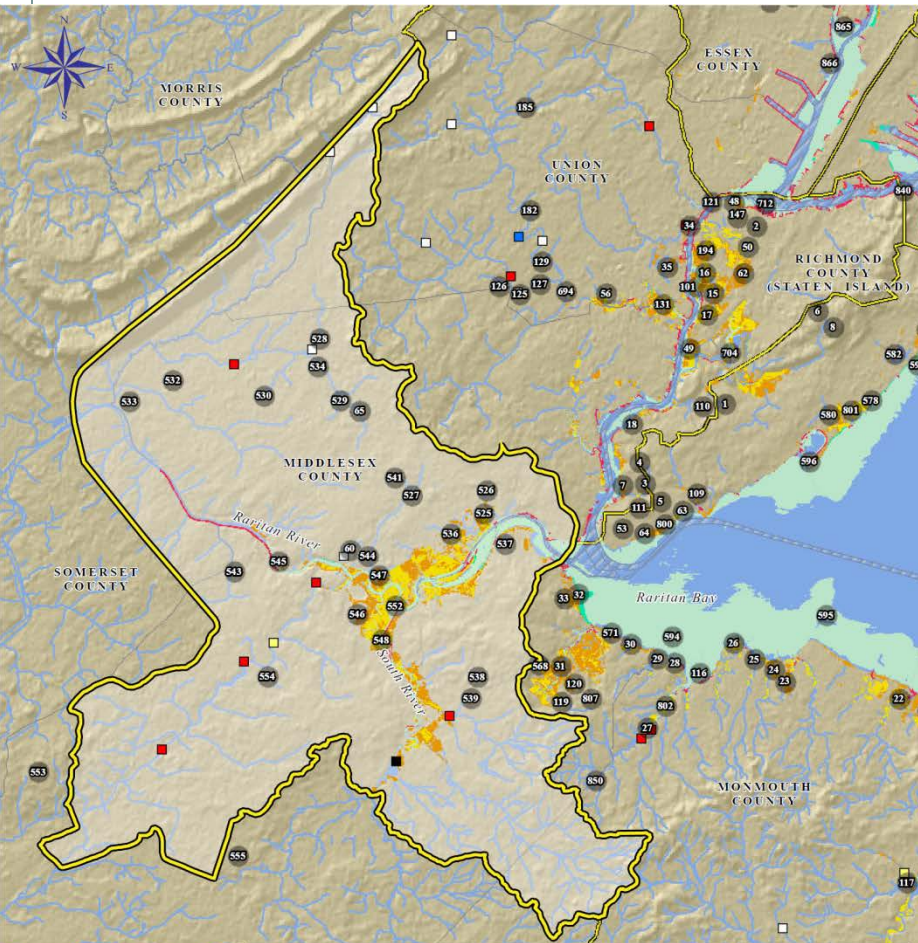
# HRE Restoration Feasibility Study



- Evaluates restoration of more than 280 sites throughout HRE
  - ★ Up to 35 Sites could be recommended for Near-Term Construction (FS-Level Designs)
- 245 Sites for possible future study
  - Many Opportunities for Natural/Nature-Based Features



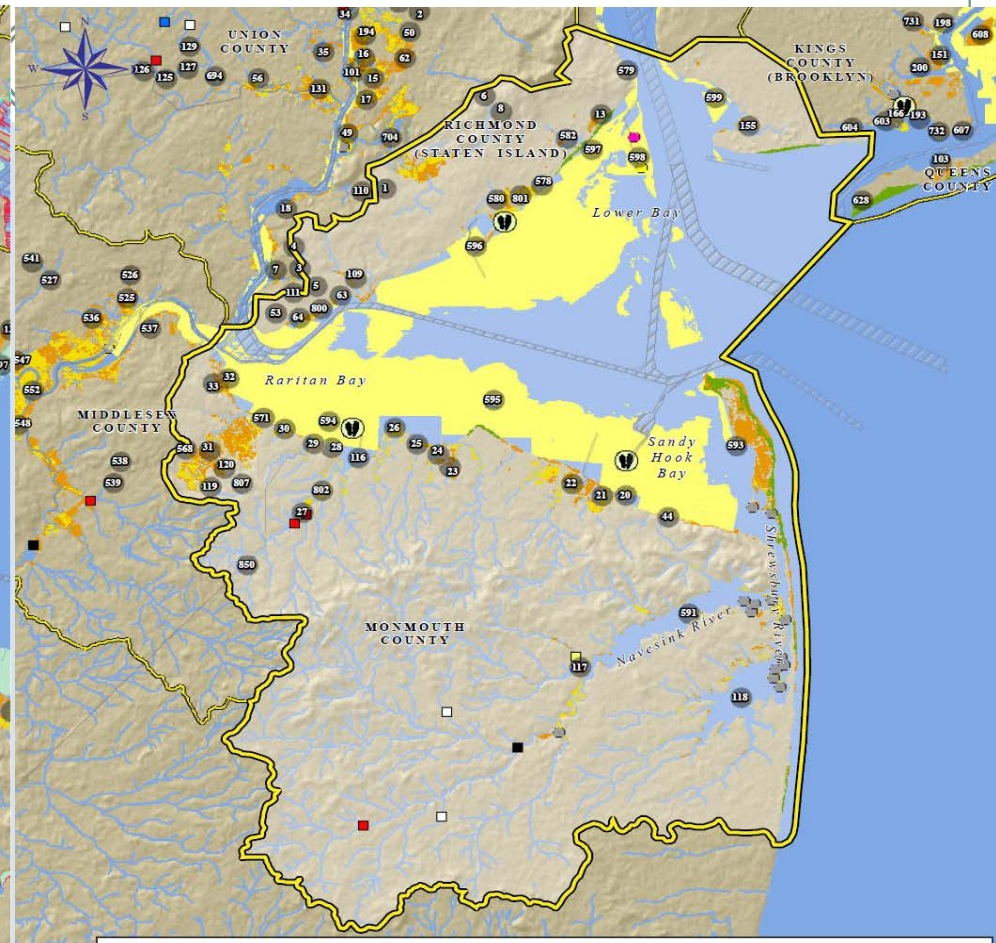
# Opportunities for future feasibility study spin-offs



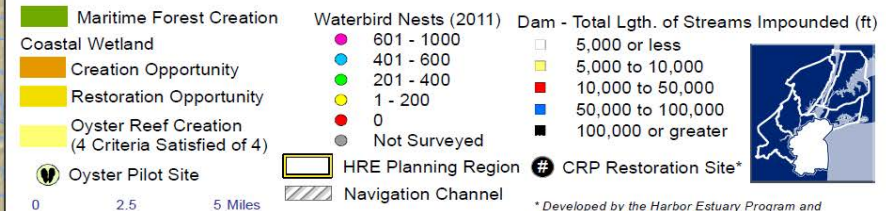
## Lower Raritan River Restoration Opportunities



\* Developed by the Harbor Estuary Program and U.S. Army Corps of Engineers (2012)



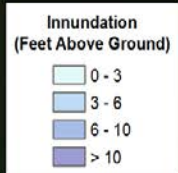
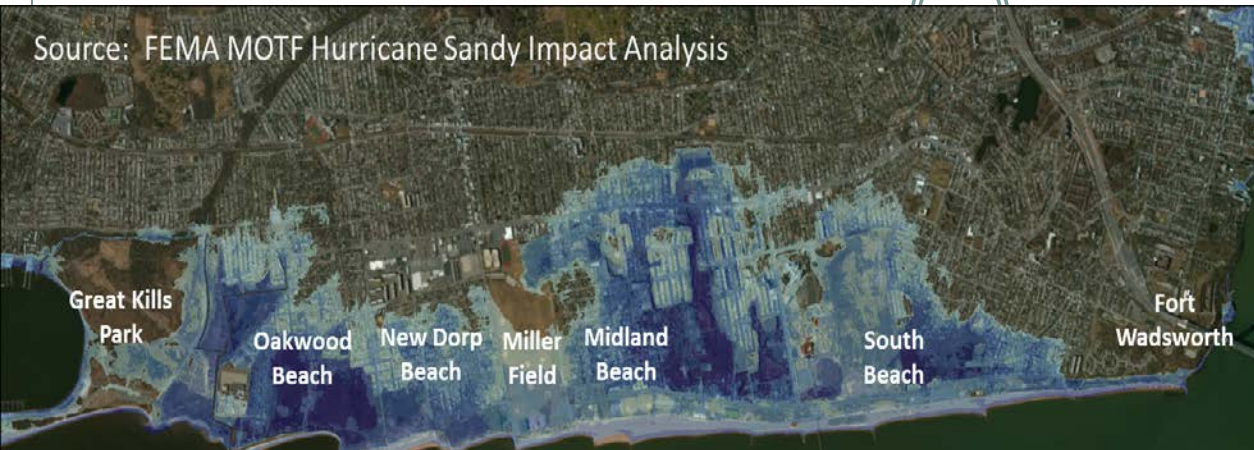
## Lower Bay Restoration Opportunities



\* Developed by the Harbor Estuary Program and U.S. Army Corps of Engineers (2012)

# South shore of Staten Island coastal storm risk management

Source: FEMA MOTF Hurricane Sandy Impact Analysis

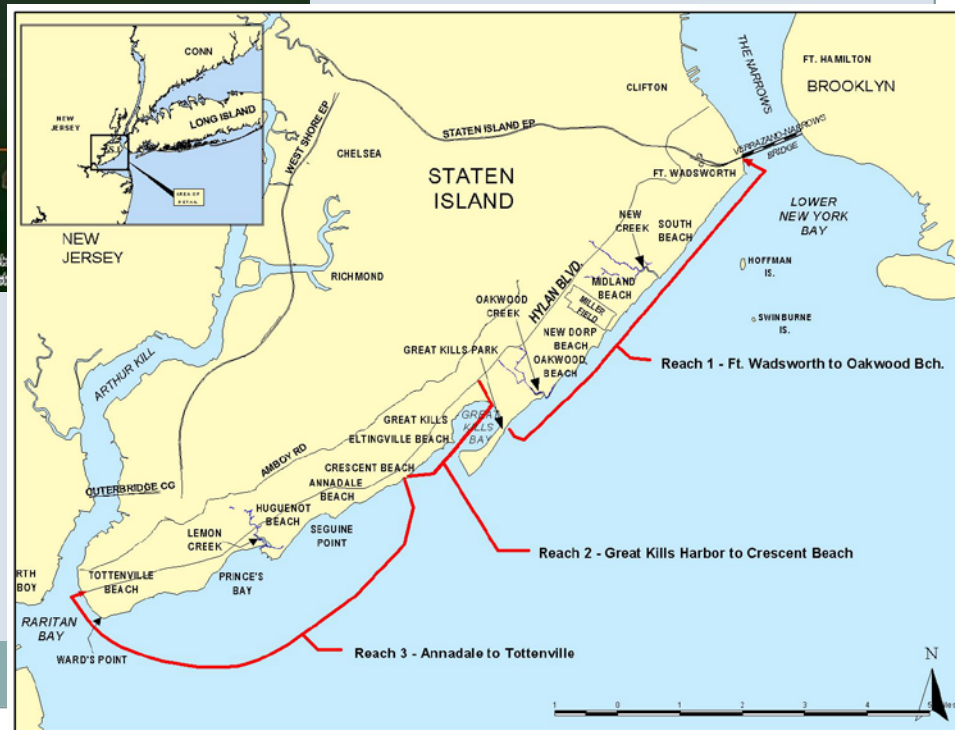


Lower New York Bay



Sources: Esri, DigitalGlobe, GeoEye, I-satellite, Earthstar, USGS, AEX, Geomapping, AeroGRID, IGN, IGP, swisstopo

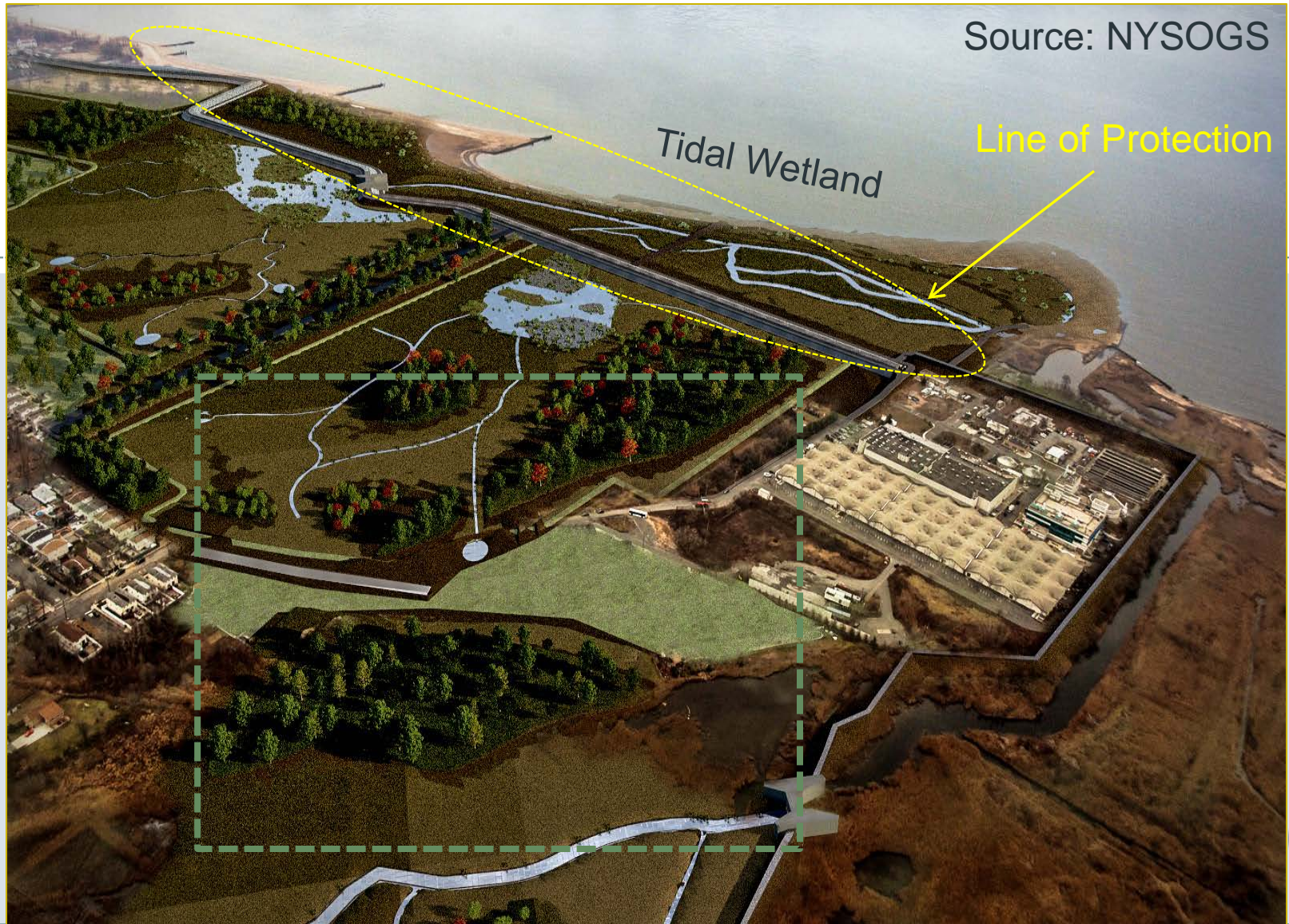
Study Reaches



Source: NYSOGS



# HRE – Oakwood Beach: first spin-off” FS



# RESTORATION of RARITAN BAY/HABITAT



CARL ALDERSON  
NOAA RESTORATION CENTER

**Two States: One Bay**  
June 12, 2015



New York - New Jersey  
Harbor & Estuary Program  
[www.harboestuary.org](http://www.harborestuary.org)

**HUDSON RIVER FOUNDATION**  
for Science & Environmental Research, Inc.



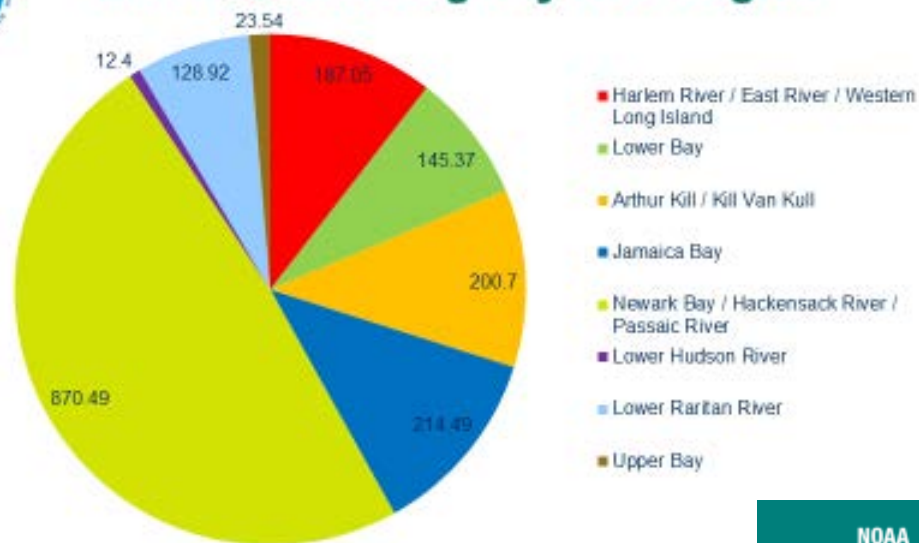


**NY/NJ HEP Boundaries and Identified HHDB Project Locations**





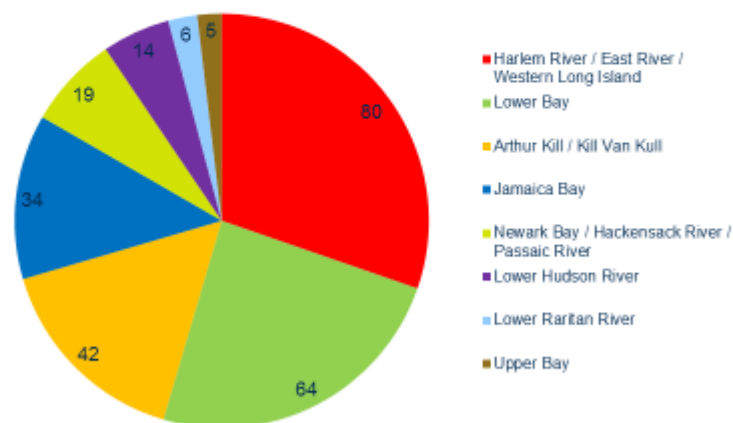
### Estimated Acreage by HRE Region



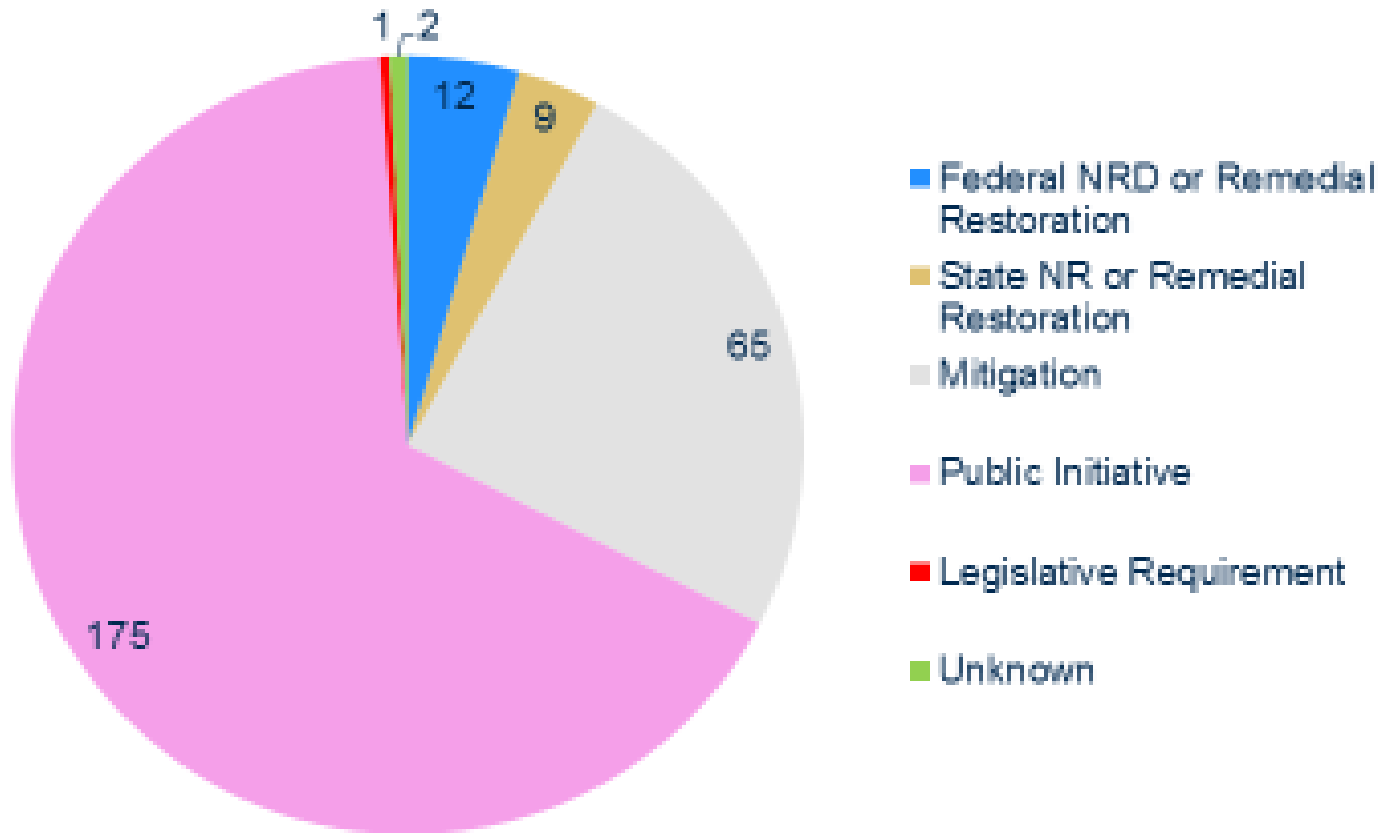
HHDB comparison of Raritan Bay sub region to other HEP regions



### Number of Sites by HRE Region



## Public Purpose



### Funding Types

Public Initiative

NRD

Mitigation

Legislative Requirement (think Sandy Recovery)

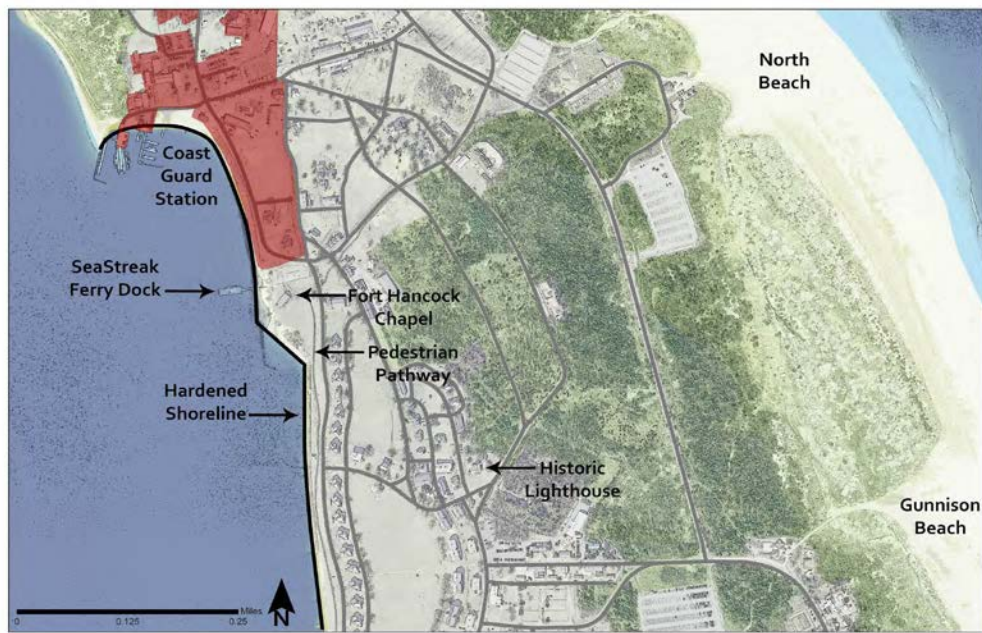


# Wetlands

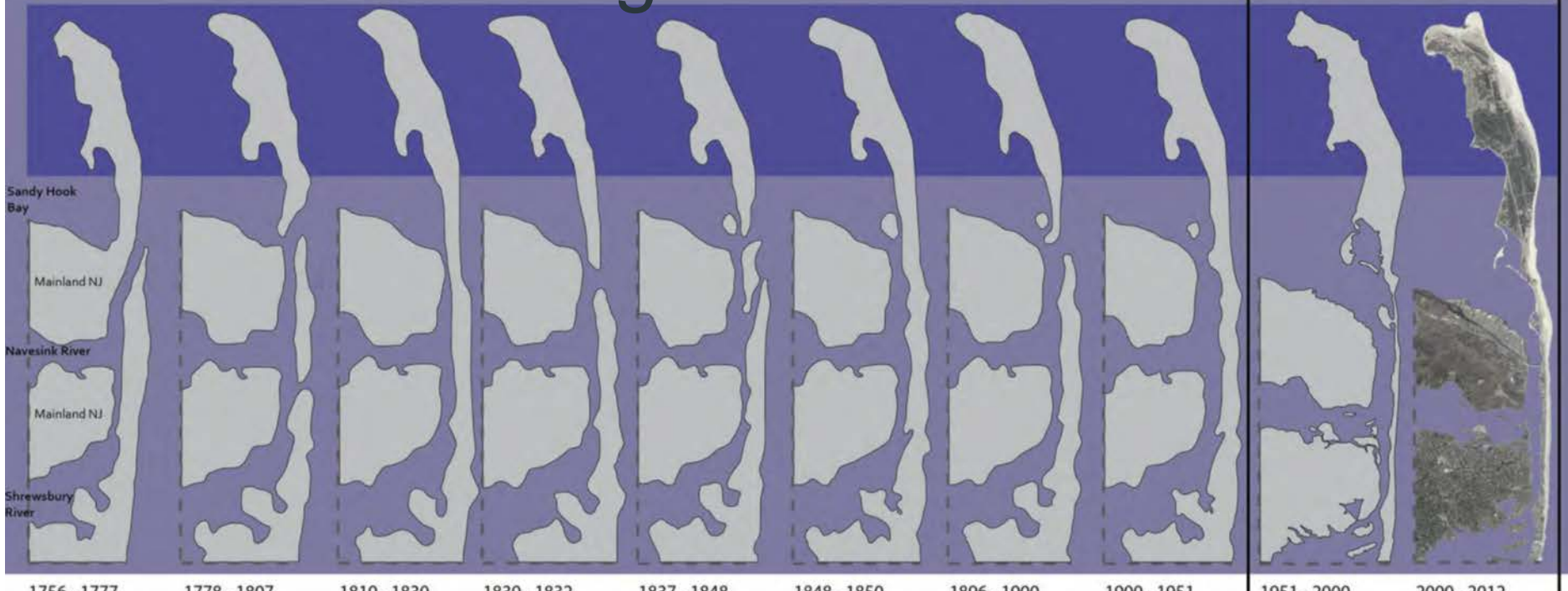


# Shellfish Reefs





# Living Shorelines



# RESTORATION of RARITAN BAY/HABITAT



New York - New Jersey  
Harbor & Estuary Program  
[www.harborestuary.org](http://www.harborestuary.org)

**HUDSON RIVER FOUNDATION**  
for Science & Environmental Research, Inc.



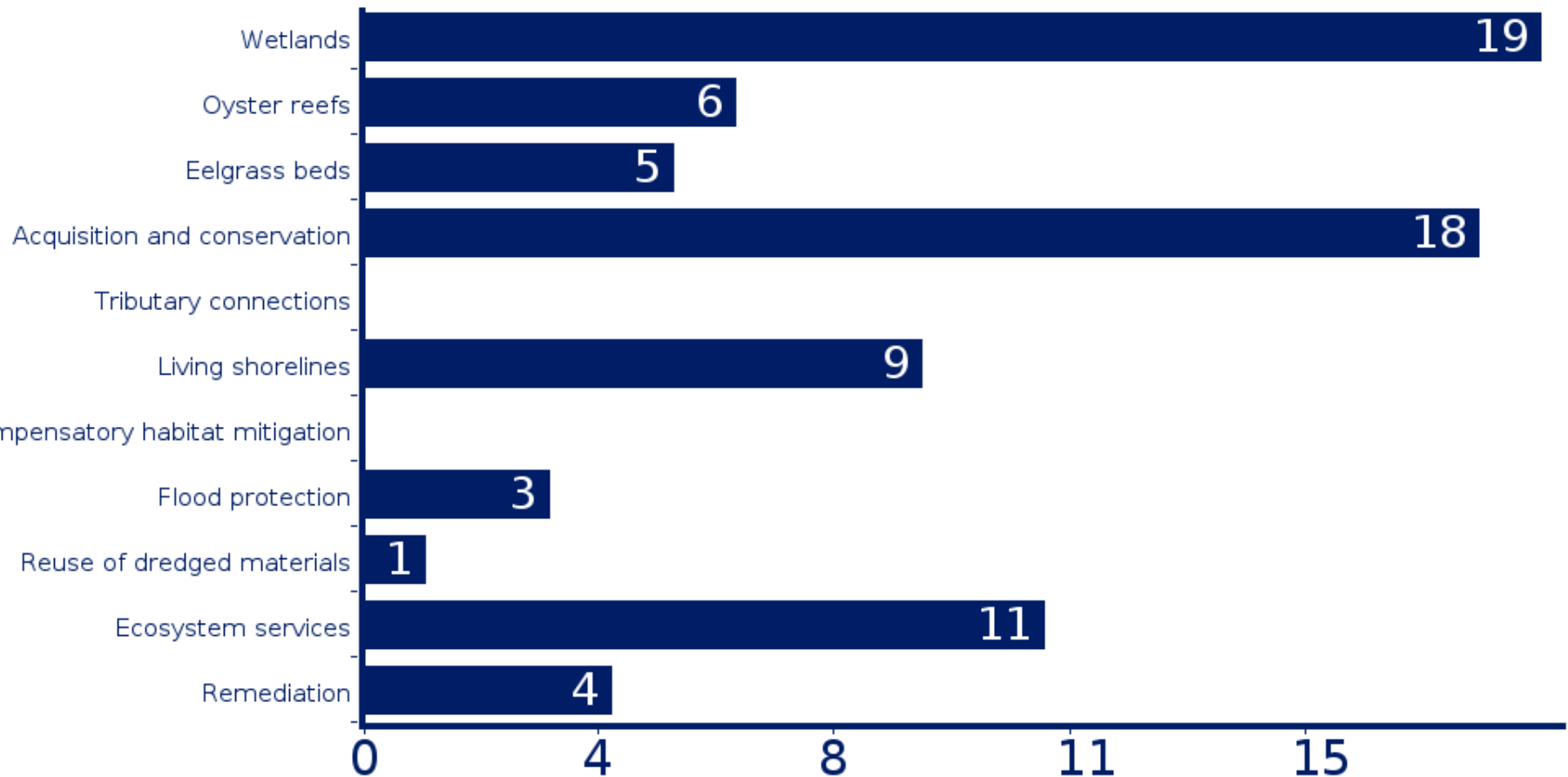
# Which of the following habitat restoration issues/tools/tactics should be the highest priority for the conference?



When poll is active, respond at **Pollev.com/raritanbay**



Text **RARITANBAY** to **22333** once to join



# What other habitat restoration issues have we missed?



When poll is active, respond at **PolleEv.com/raritanbay**



Text **RARITANBAY** to **22333** once to join

