



# **NJDEP Division of Land Resource Protection**

## **Living Shoreline & Nature Based Solution Permitting**

  
**RAE Conference October 2021**





# NJDEP's Division of Land Resource Protection

∞ The NJDEP's Division of Land Resource Protection regulates development, including living shorelines and other nature-based solutions, within areas governed by the following regulations:

- Coastal Zone Management (CZM) Rules at N.J.A.C. 7:7
  - CAFRA, Waterfront Development, Mapped Coastal Wetlands
- Flood Hazard Area Control Act (FHACA) Rules at N.J.A.C. 7:13
  - Flood Hazard Areas, Riparian Zones
- Freshwater Wetlands Protection Act (FWPA) Rules at N.J.A.C. 7:7A
  - Freshwater Wetlands, Transition Areas, State Open Waters, Unmapped Coastal Wetlands





Courtesy of the Partnership for the Delaware Estuary

# Pre-Sandy Permitting Constraints



# Revised Coastal Rules

**June 2013 – Emergency adoption  
of New Coastal Zone Management  
Rules**

- Revisions made to Coastal Regulations to facilitate the establishment of living shorelines:
  - The general permit for habitat creation and enhancement was modified to include living shoreline activities (General Permit #24 - N.J.A.C. 7:7-6.24)
  - A new general water area rule was added for living shorelines (N.J.A.C. 7:7-12.23)

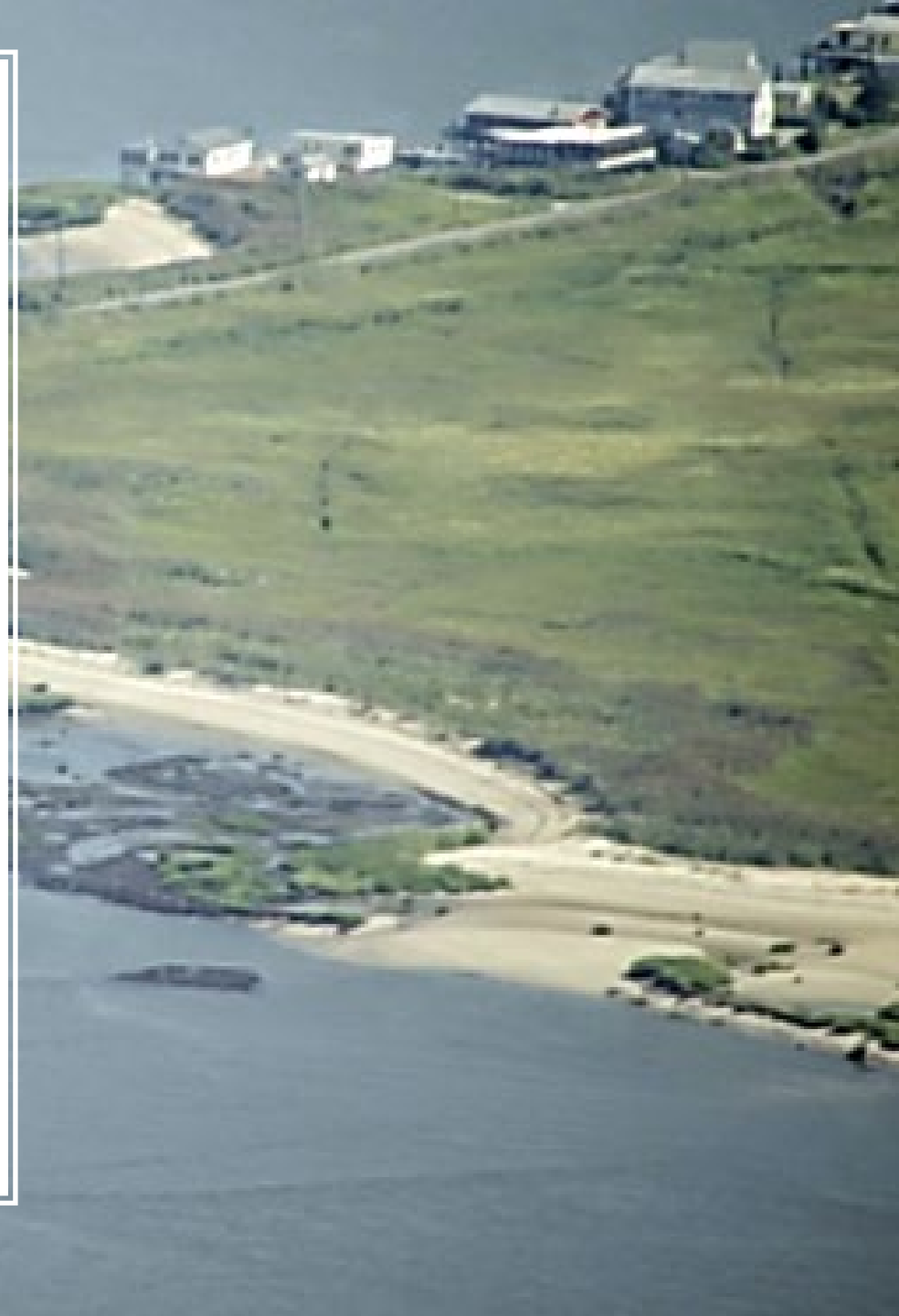




# General Permit 24

Living shoreline activities shall comply with the following:

- Generally, <1 acre of disturbance below the mean high water but can be larger if the applicant is a county, state or federal agency that demonstrates the project size is necessary to satisfy goals.
- The project shall disturb the minimum amount of special areas, as defined by N.J.A.C. 7:7-9, necessary to successfully implement the project plan.
- Shall not exceed the footprint of the shoreline as it appeared on the applicable Tidelands Map adopted by the Tidelands Resource Council (base map photography dated 1977/1978).
  - Except for a structural component of the project intended to reduce wave energy



# General Permit 24 at N.J.A.C. 7:7-6.24

General Permit 24 for habit creation, restoration, enhancement, and living shoreline activities (covers work in CAFRA, Waterfront Development, and Mapped Coastal Wetlands)



**Incentive = no application fee for GP24**



Requires the living shoreline/nature-based solutions plan be designed and/or sponsored by the DEP, USFWS, NRCS, USACE, USEPA, or NOAA's Restoration Center or implemented by a college or university for research purposes. Sponsorship of project must be provided in writing.



Living shorelines/nature-based solutions projects must be designed to address erosion and protect, restore, or enhance a habitat.

- Must demonstrate that the project will maintain values/functions of the ecosystem and have a reasonable likelihood of success.





# CAFRA, Waterfront Development & Coastal Wetlands Individual Permits for Living Shorelines

- ✧ Living shorelines/nature-based solutions projects that do not meet the requirements of the General Permit 24 will require an Individual Permit.
  - Compliance with the Living Shorelines rule at N.J.A.C. 7:7-12.23
  - Other applicable CZM regulations such as the Shellfish Habitat rule at N.J.A.C. 7:7-9.2, the Submerged Vegetation Habitat rule at N.J.A.C. 7:7-9.6, the Wetlands rule at N.J.A.C. 7:7-9.27, the Filling rule at N.J.A.C. 7:7-12.11, and the Coastal Engineering rule at N.J.A.C. 7:7-15.11.



# Bureau of Tidelands Management

- ✧ A Tidelands Instrument is required for living shorelines/nature-based solutions projects in areas formerly flowed by the tide or areas currently below the mean high water line.
- ✧ The application for a new Tidelands license should be submitted simultaneously with the application being submitted to the Division for a permit.
- ✧ Tidelands license fee is \$100/year for 7 years.



# Tidal Marsh Restoration Projects

- Marsh Edge Erosion





# Tidal Marsh Restoration Projects

- Loss of Elevation of the Marsh Platform







## Berkeley Island – Ocean County Traditional Rock Sill Shoreline Protection

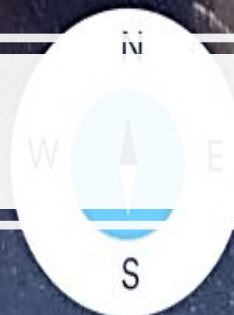
Vertical



Sun Jul 12 2020



50 ft





# **Berkely Island County Park, Ocean County**





# Gandy's Beach Oyster Castles





# Mordecai Island - Beneficial Reuse of Dredge Material

Pre-Placement

- Placement for the protection of SAV and Shellfish habitat
- Post-placement created excellent shorebird habitat
- Shellbags were also installed for continued accretion to island

Vertical



Wed Aug 12 2015





# Mordecai Island - Beneficial Reuse of Dredge Material

Post-Placement

- 2017 Post-placement aerial

Vertical



Mon Mar 20 2017



500 ft

# Mordecai Island - Beneficial Reuse of Dredge Material

Current Condition

- 2020 Aerial depicting different elevations/habitats

 Vertical



Fri Feb 21 2020

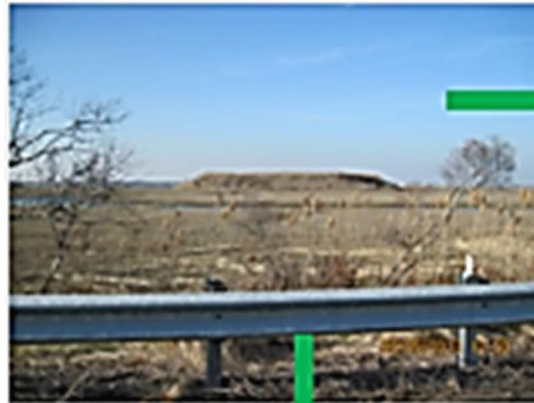




Section  
1122 –  
Barnegat  
Bay



## A SEDIMENT PROGRESSION: FROM CONFINEMENT TO IN-WATER CREATION





Section 1122 – Island Creation





Section 1122 – Nearshore Placement



# Seven Mile Island Living Laboratory

ACOE Engineering & Research Development Center (ERDC) & Wetlands Institute – Innovation Laboratory

Three Examples within SMILL are:

Great Flats

Gull Island

Sturgeon Island





# Great Flats



# Great Flats







# Gull Island



# Gull Island Placement Plan









Wye Valve

Spreader Bar/Nozzle/Plain Discharge

# Sturgeon Island Sand Placement

Sediment Distribution Pipe





# Application Information

- ✧ All of the Division's application materials, such as the application form, fee schedule, and checklists for each type of available permit, can be found on the Division's website at <http://www.nj.gov/dep/landuse/>
- ✧ For additional Division permitting inquiries related to living shorelines or nature-based solutions projects, please contact Lindsey Davis or Kara Turner by phone at (609)633-2289 or by email at [Lindsey.Davis@dep.nj.gov](mailto:Lindsey.Davis@dep.nj.gov) or [Kara.Turner@dep.nj.gov](mailto:Kara.Turner@dep.nj.gov)



# Questions?

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