NJ CRC: Tools for Ecological Restoration

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Restore Americas Estuaries Conference
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NJ Adores the Shore.

NJ Tourism = $38 billion economic impact

* Half at the Shore
$6 billion in flood damages since 1978

Only Texas and Louisiana ahead of NJ

One NJ town has received more payments than 43 other states ($)

Atlantic City, NJ
October 3, 2015
Photo credit: Lori M. Nichols/NJ.com
NJ’s Natural Assets.

$425 million in savings during Superstorm Sandy
New Jersey Shore

Coastal Resilience.org is a decision support tool that incorporates the best available science and local data to enable communities and conservation practitioners to identify nature-based solutions for enhancing resilience and reducing risk where possible. For additional project-based solutions for enhancing resilience and reducing risk where possible. For additional project-based solutions for enhancing resilience and reducing risk where possible. For additional project-based solutions for enhancing resilience and reducing risk where possible. For additional project-based solutions for enhancing resilience and reducing risk where possible. For additional project-based solutions for enhancing resilience and reducing risk where possible.

Restoration Explorer Apps

Marsh Explorer
Focused on salt marshes across New Jersey's Atlantic coast, this app shows the need for tidal marsh restoration and protection, including ditches, marsh edge erosion, and unused dredged lagoons.

Living Shorelines
This app shows which of 6 living shoreline techniques could be selected, at a user identified site, to reduce erosion based on engineering and ecological criteria.

Other Apps

Tour
Flood and Sea Level Rise

Supporting Data
- dredged Lagoons
- Linear Ditching
- Marsh Edge Erosion
- Unvegetated Marsh
- Navigation Channels
- Native Cores
- Distribution

Methods
New Jersey Shore

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Restoration Explorer Apps

- **Marsh Explorer**
  Focused on salt marshes across New Jersey’s Atlantic coast, this app shows the need for tidal marsh restoration across New Jersey’s ocean coast based on the amount and size of linear ditches, marsh edge erosion, unvegetated marsh, and unused dredged lagoons.

- **Living Shorelines**
  This app shows which of 6 living shoreline techniques could be selected, at a user identified site, to reduce erosion based on engineering and ecological criteria.
Key Elements

- Conservation NGO’s & NJDEP (Overall Structure)
- Rutgers University (Data & Models)
- Focus Communities (Community Needs)
- Stevens Institute of Technology (Engineering)

Restoration Explorer
Atlantic City has 25 miles of shoreline. Zoom in to see which shoreline enhancement techniques apply here.

1. Select the shoreline type
- Tidal Marsh
- Forested, Beach, or Bulkhead

2. How would you like to view results?
- Show All Techniques in One Map
- Show Information on Individual Techniques

Map Legend:
- Number of tidal marsh shoreline edge techniques that are applicable:
  - 1
  - 2
  - 3
  - 4
  - 5
Capacity Building
Guidebooks

- The Nature Conservancy
- Stevens Institute of Technology
- Rutgers University

A Framework for Developing Monitoring Plans for Coastal Wetland Restoration and Living Shoreline Projects in New Jersey

Recommended data collection and evaluation of project performance to facilitate adaptive management and improve future project designs

Version 1.2, most recent update 12/17/2016
Resources

Restoration Explorer:
• http://maps.coastalresilience.org/newjersey/

Online Guidebooks:
• http://coastalresilience.org/project/new-jersey/

Thank You!