

Superstorm Sandy & the National Coastal Management Program

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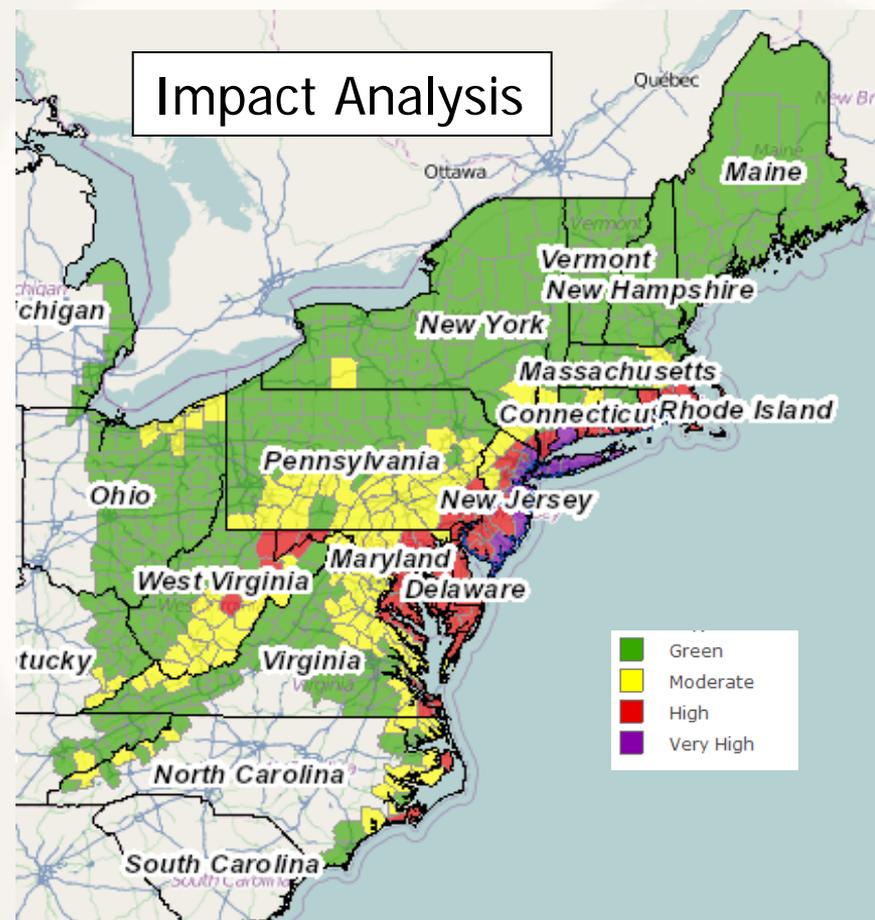
Superstorm Sandy

- Hybrid cyclone-nor'easter
- Rain and high winds from East Coast to Great Lakes and snow across Appalachia



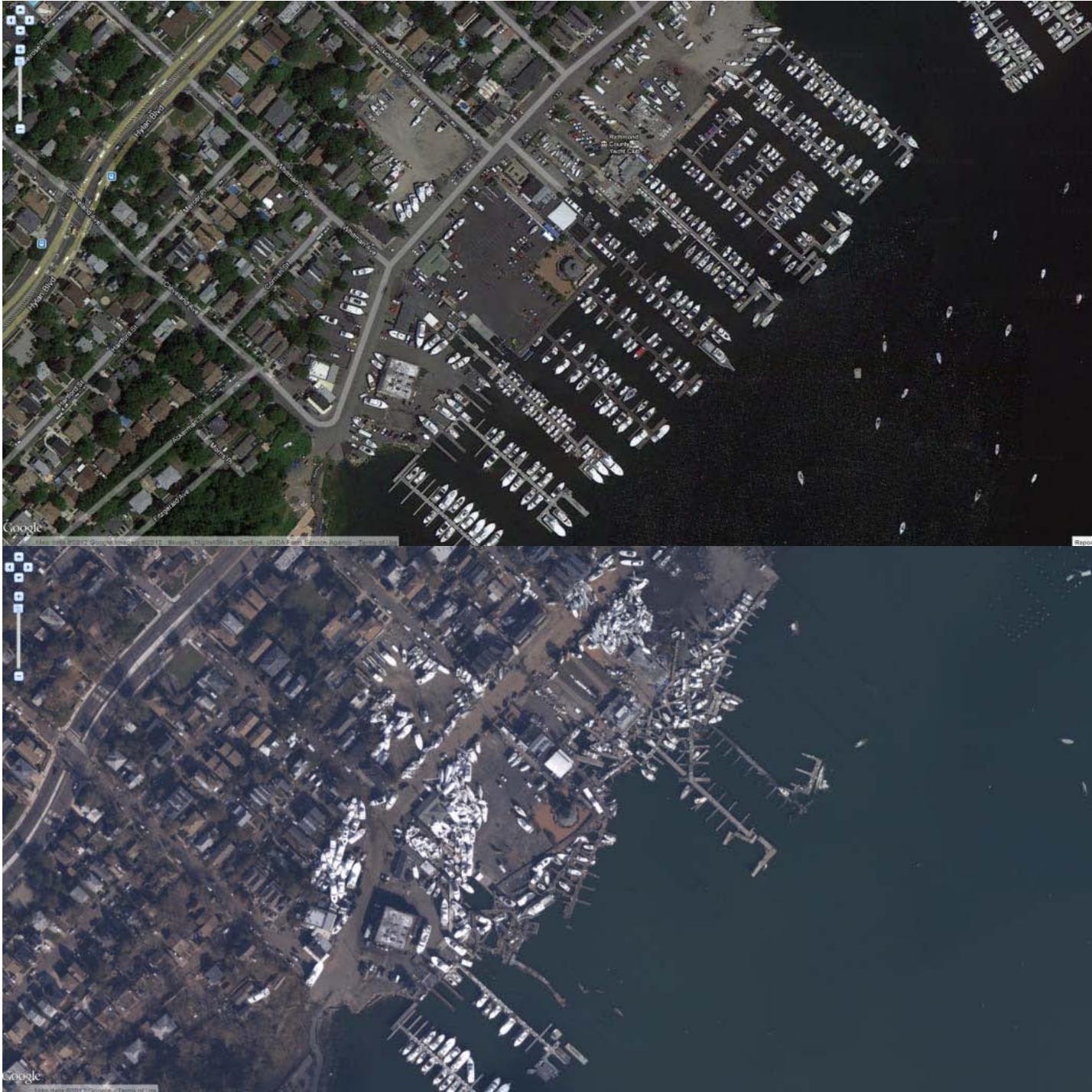
Superstorm Sandy (cont'd)

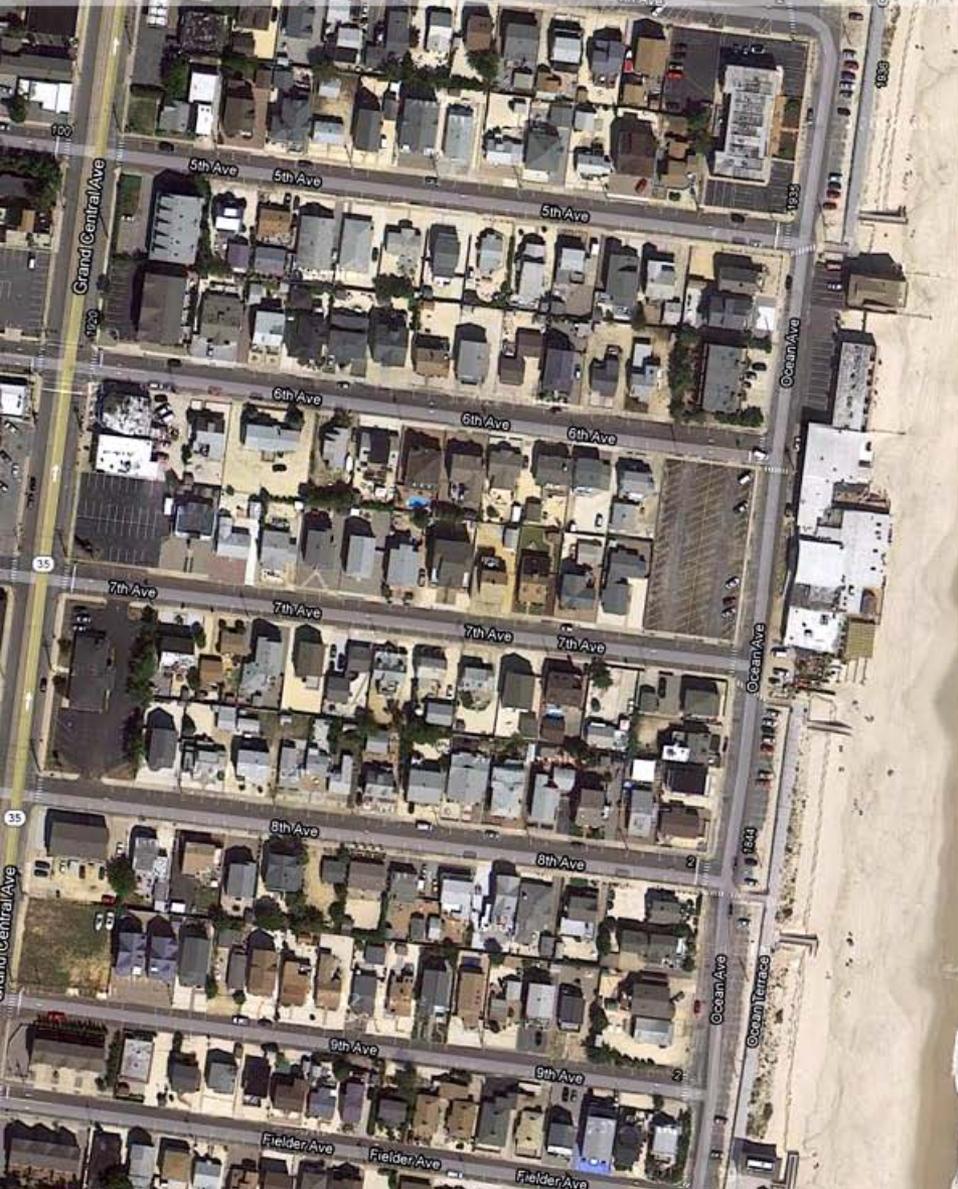
- Greatest damage along coasts of NJ, NY, and CT
- More than 130 lives lost
- Estimated cost of recovery in NY and NJ = at least \$71.3 billion
- Fishery resource disaster declared for NY and NJ



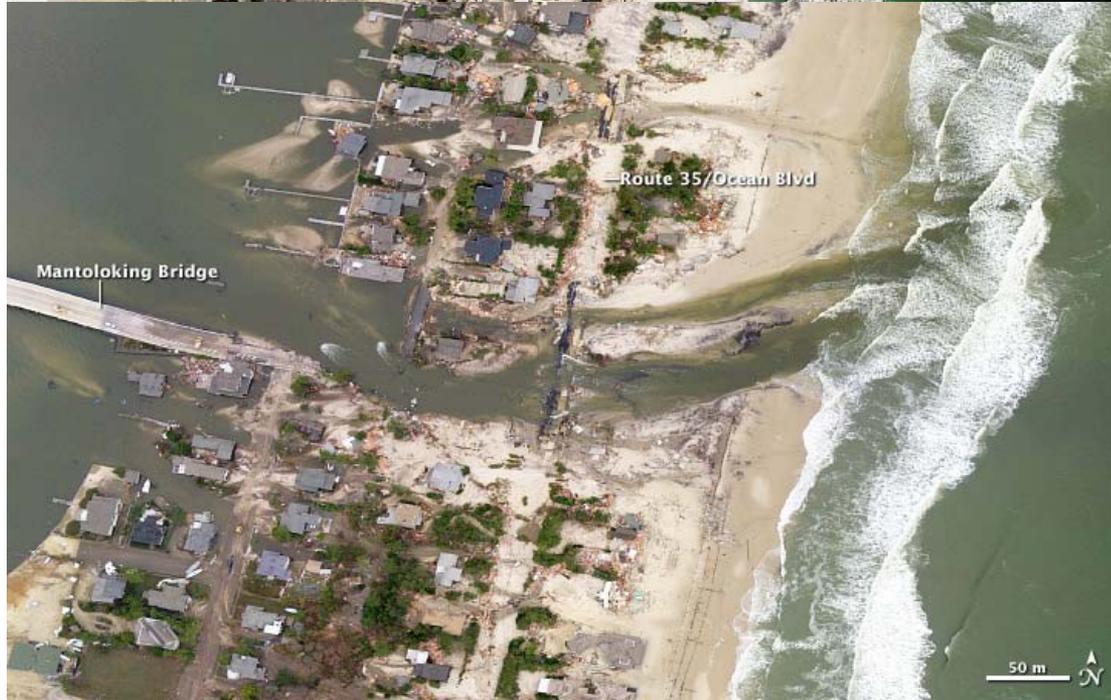


Staten Island, New York



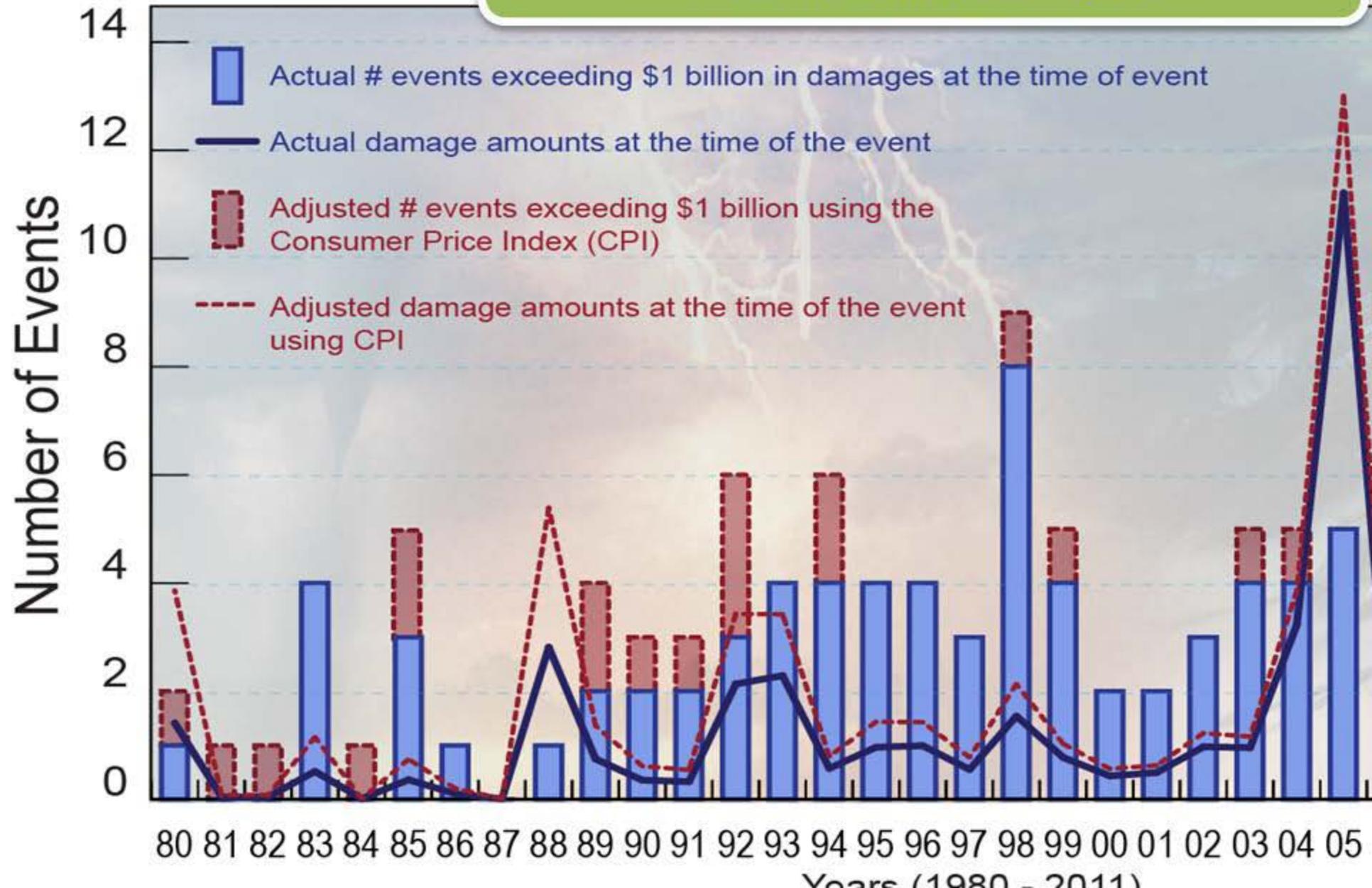


Normandy Beach, New Jersey



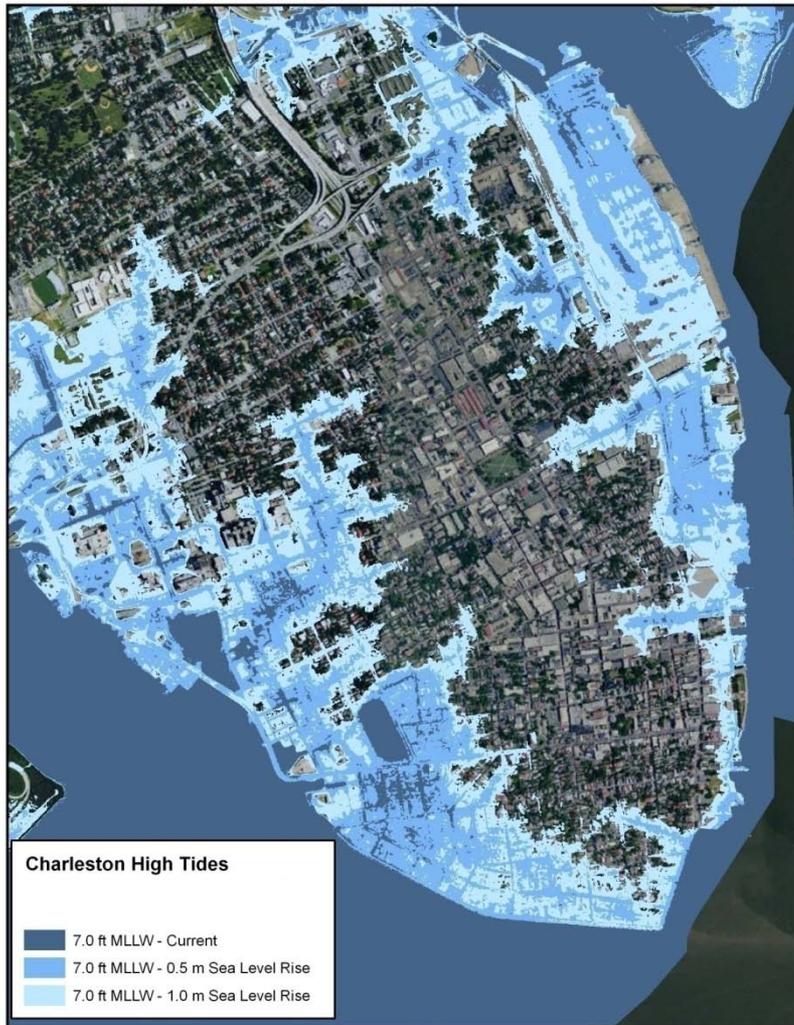
Mantoloking, New Jersey

A Record 14 Disasters in the U.S. in 2011 Three more approaching \$1B



Today's Flood is Tomorrow's High Tide

- More frequent and severe flooding from accelerated sea level rise (SLR)
- Increasing population and development at risk
- Information and tools needed now to aid decision making, even with the uncertainty in SLR projections





Getting Mother Nature on Your Team



Restoration Drives Resilience

- Blue and Green Infrastructure
- Storm Buffers
- Biodiversity

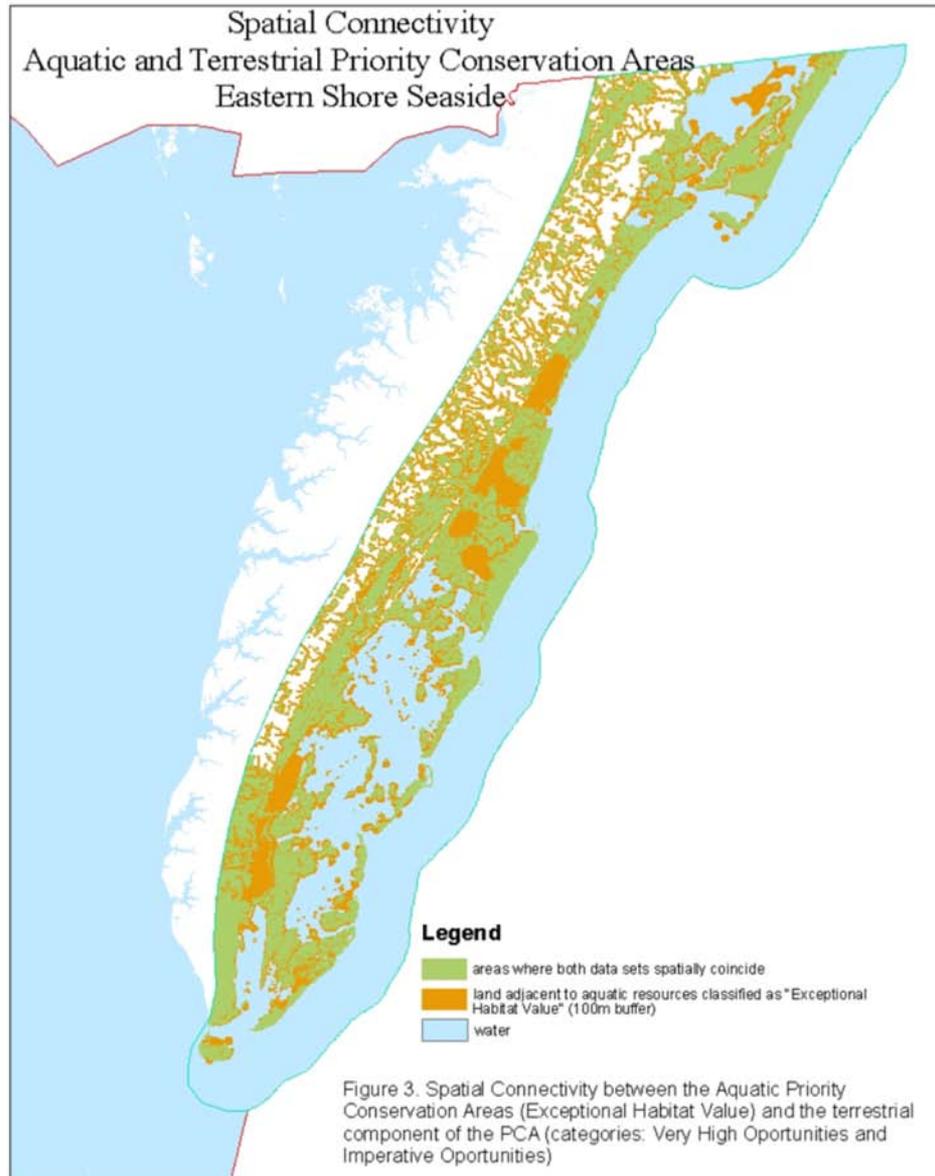


Figure 3. Observed linkages between highly ranked terrestrial conservation areas and aquatic zones of exceptional value



Resilience through Restoration

Restore America's Estuaries:

- Model resilience potential of habitats
- Prioritize sites
- Restore sites that will survive sea level rise
- Improve coastal management policies: stormwater, armoring, etc.



**RESTORE-
ADAPT-
MITIGATE:**

RESPONDING
TO CLIMATE
CHANGE
THROUGH
COASTAL
HABITAT
RESTORATION



<http://estuaries.org/reports/>

(www.estuaries.org/reports/)

Good to Have Some Tools

The screenshot shows the NOAA Digital Coast website interface. The header includes the NOAA logo and the text "DIGITAL COAST NOAA COASTAL SERVICES CENTER". Navigation links for Home, About, Data, Tools, Training, and In Action are visible. A left sidebar lists categories: DATA, TOOLS, TRAINING, and IN ACTION. The main content area features a "REGISTRATION WILL OPEN SOON" banner for "Coastal GeoTools" from March 25 to 28, 2013, in Myrtle Beach, South Carolina. Other sections include "FEATURED PRODUCTS" with links to economic data, hazards, and flood visualization; "What's New" with links to environmental sensitivity, satellite imagery, and bathymetry; and "WEBINARS" for a virtual intro to ocean and great lakes economy. A "BLOG: GeoZone" section highlights a post about flooding.

Planning Frameworks

- Inundation Toolkit
- Community Resilience & Vulnerability Assessment Tools

Local/Regional Data

- Coastal Land Cover
- Legislative Atlas

Visualizations

- Historical Hurricane Tracks
- CanVis
- Sea Level Rise Viewer

Landscape Analysis

- Habitat Priority Planner

www.csc.noaa.gov/digitalcoast



NOS Role in Immediate Response

- Monitored and disseminated ocean and coastal data (CO-OPS)
- Conducted navigational surveys to restore commerce (OCS)
- Provided aerial damage assessment imagery (NGS)
- Supported hazardous spill and marine debris response (OR&R)
- Coordinated with state coastal management programs (OCRM)



NOS Role in Recovery & Rebuilding

- Provides water level and meteorological data reports and tools (CO-OPS)
- Assesses environmental impact of contaminants (NCCOS)
- Provides maps, data, and data analysis (CSC)
- Provides connections with other federal agencies (OCRM and CSC)
- Assists with long-term recovery planning (OCRM and CSC)



Questions for the Future

- Rethink roles and support within context of OCRM & CSC Integration
- Lessons from Superstorm Sandy: Strengthen protocols and coordination
- Explore enhancing focus on hazards under CZM competitive program
- Explore leverage of other NOAA RFPs

Final Thoughts

- Change is here
- It's everyone's problem
- Think outside of the box
- Work together to find solutions
- Plan and adapt

