RUTGERS
Climate Institute

Panel 2 Hurricane Sandy Response and Recovery

What was or continues to be your involvement with response and recovery to Hurricane Sandy?

HOW MUCH INFORMATION IS ENOUGH?

- *"…it's so confusing, no matter how much information you give them, they don't come away with a clear understanding of what the best thing to do is." (Municipal official)*
- *"That was absolutely great, but now I have more questions than I had when I walked in the door." (Resident)*
- 31 **Uncertainties**
  - Changes of landforms, sea level and climate (3)
  - Financing and rebuilding (10)
  - Regulation (9)
  - Continuing & hidden vulnerabilities (3)
  - Social readjustments (6)
- **Bridging systemic interfaces**
  - *"Do I understand the maps? I think yes, but I don't understand their application." (Resident, in reference to FEMA advisory FIRMS and BFEs)*
  - NFIP v homeowner's risk assessment
- **Downscaling meets upscaling**
  - Upscaling: The integration of risk assessments made by individuals and local groups to reveal community wide patterns of collective perceived risk.

Applied Disaster Training: Social Work

- Trained 12 “Disaster Fellows”
  - Graduate Social Work Students
  - Part of regular field work requirement
- Provided case management and mental health counseling to over 500 individuals
- How RU? Campaign
  - Partner with Mental Health Association of New Jersey
  - Integrated students from the College of Nursing
- Currently training mental health providers in Mental Health First Aid at all 3 RU campuses
- Community survey of 850 survivors in impacted areas in partnership with Columbia University

RUTGERS School of Social Work

PARTNERING for CHANGE

RESPONSE AND RECOVERY TO SANDY

1. Assessment of Essential Habitat
    - Seagrass Subsystems (Sediment Burial)
    - Salt Marshes (Biomonitoring/Habitat)
2. Nutrients/Eutrophication (Estuarine Impact)
3. Flood Risk Reduction (Six Shore Communities)
    - Backbay Flooding Investigations
    - Flood Mitigation Measures
        - (Engineering Applications)
        - (Green Infrastructure)
    - Infrastructure Resilience
        - (Stormwater System Upgrades)
    - Water Protection Levels
4. Coordinating Service Activities

Developing Tools for Visualizing Coastal Inundation Exposure and Promoting Resiliency Planning

Richard Lathrop
Walton Center for Remote Sensing & Spatial Analysis

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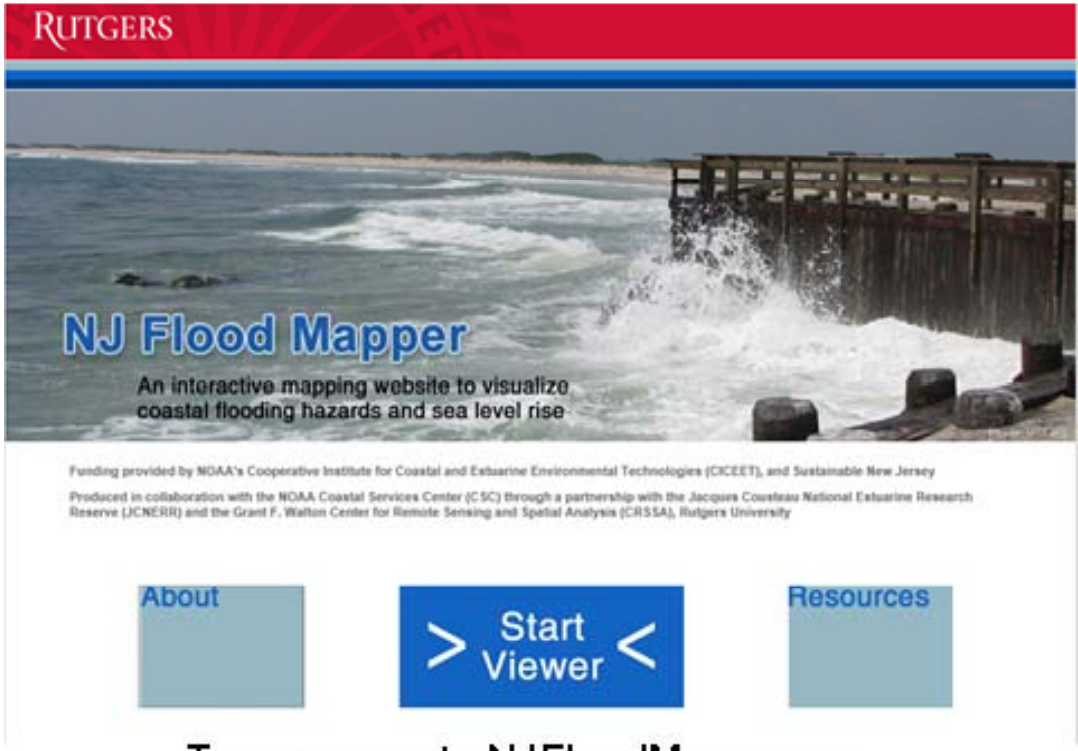
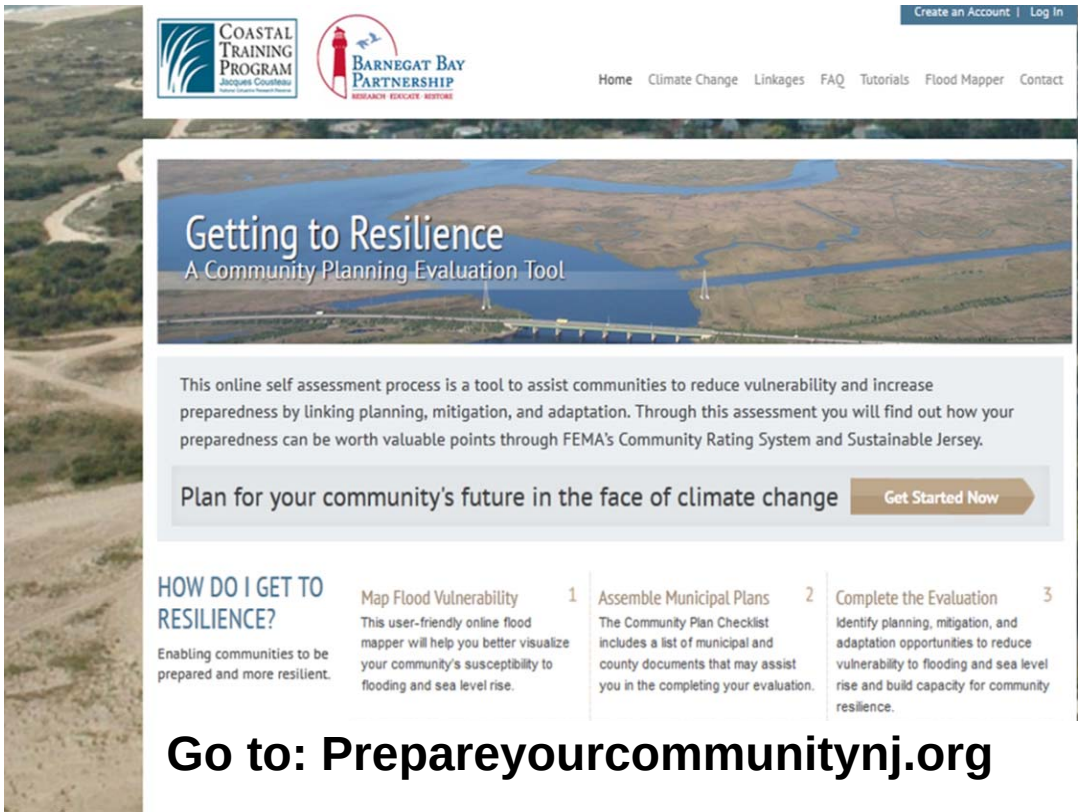
School of Environmental and Biological Sciences



To access go to NJFloodMapper.org



Go to: Prepareyourcommunitynj.org

Jacques Cousteau National Estuarine Research Reserve

Improving Coastal Community Hurricane Resilience>>

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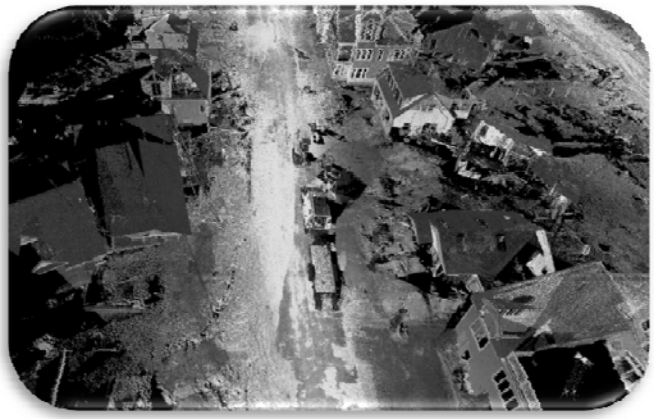
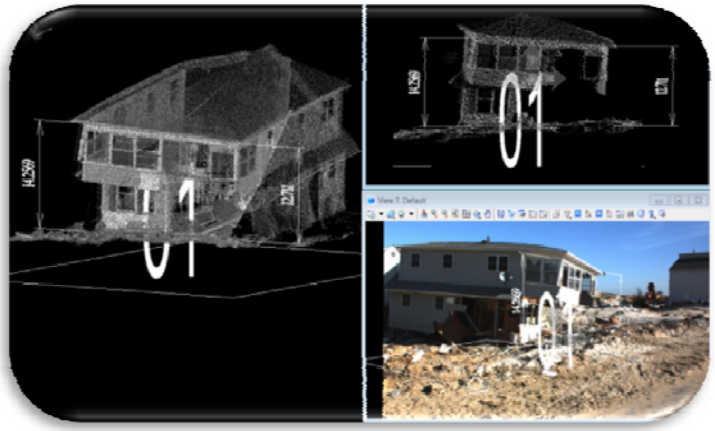
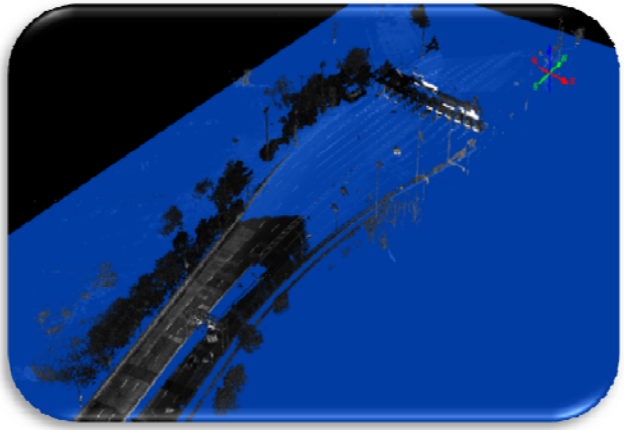


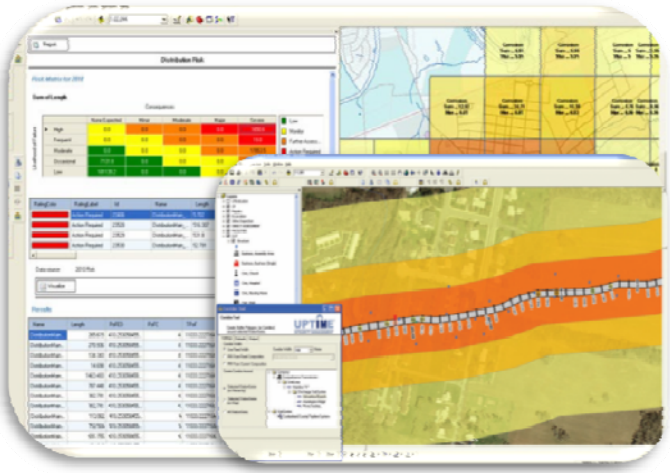
Rapid Post-Disaster Damage Assessment



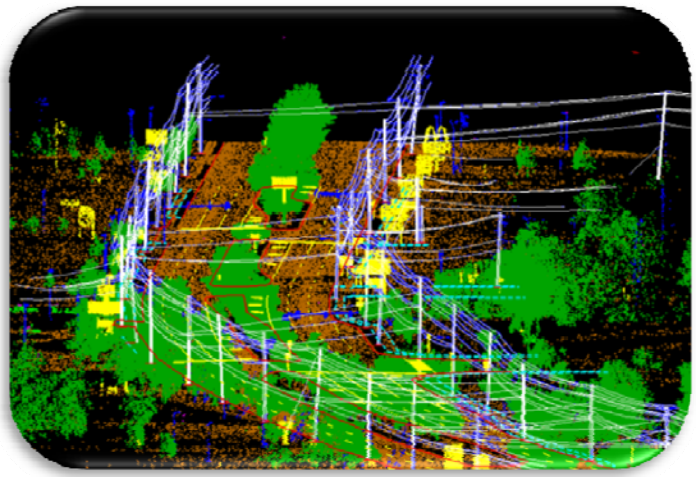
Hurricane Damage Modeling and Prediction



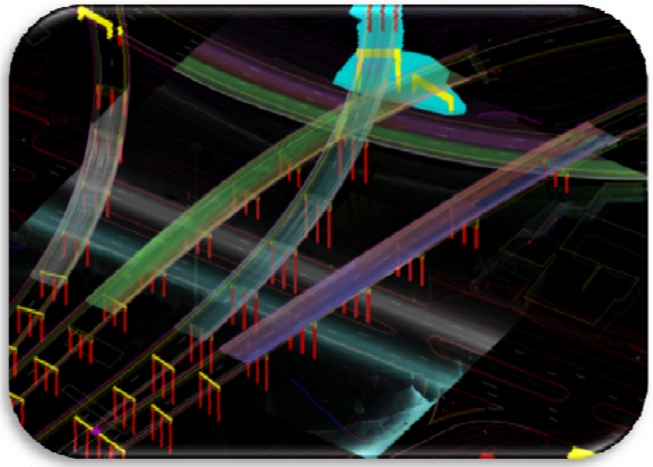
Risk Communication and Resilience Visualization



Data-Driven Threat Detection and Risk Analysis



Energy Infrastructure Vulnerability Assessment and Renewable Energy Investment Strategies



Sensor Data Analytics and Knowledge Extraction

Response to “Sandy” at the Haskin Shellfish Research Lab along the ‘forgotten coast’

Short-term
Rutgers facility repairs:
- Cape Shore dune - complete
- Haskin Lab – in progress

Bay Shore Community Assessments:
- Hosted/facilitated meetings
- Rising Tides Forum (BCB)
- PDE BaySIPP
- JCNERR Listening session
- NJDEP flood protection needs
- Economic valuations
  - natural and industrial

Long-term
Marsh protection/ living shorelines
Oyster population/industry recovery
- $18 M/ yr oyster industry
- $200 M/yr clam fishery

Long-term Recover Groups
- Cumberland County
- Cape May County

Multiple partners:
- 3 counties and their municipalities
- several state and federal agencies
- multiple NGOs (PDE, BCB, TNC, NLT, etc.)

Multiple Events!
Irene & Lee – Aug-Sept 2011
Derecho – July 2012
Sandy – Oct 2012
Mayan Storm – Dec 2012