# Responding to the Surge: Resilience.





## Resilience.









Understand the Issues

### Assess Risk and Vulnerability

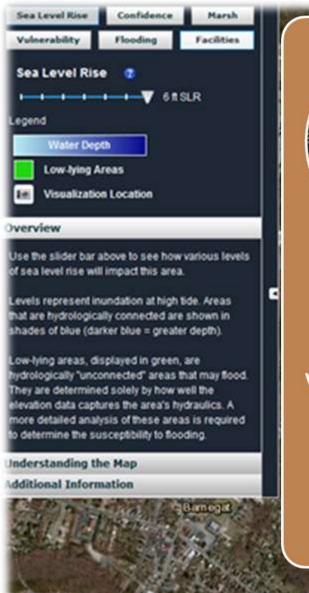
### Plan for the Future

### Implement and Adapt



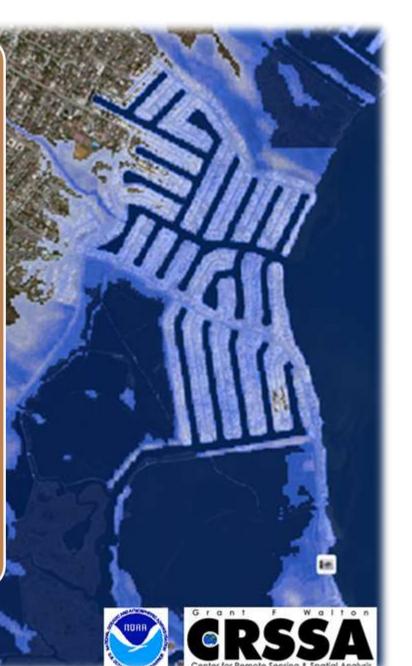
## Understand the Issues

Photo credit: N. Psuty

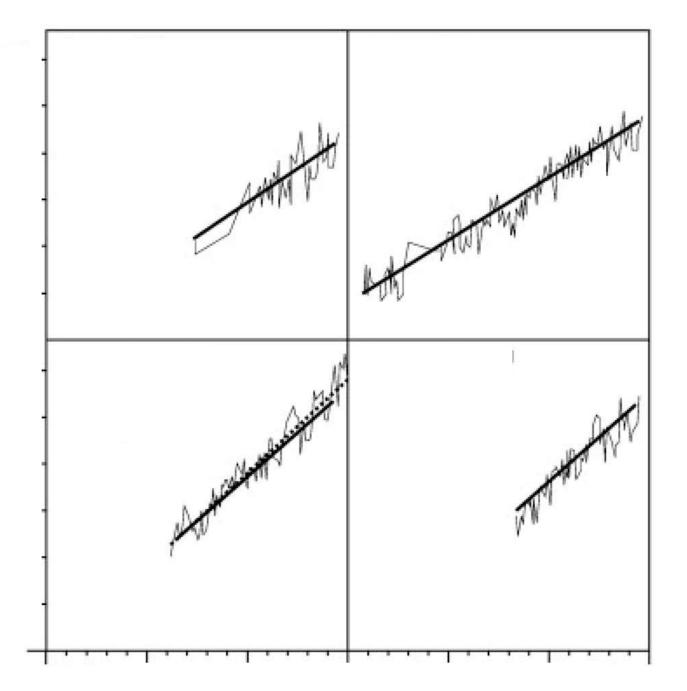


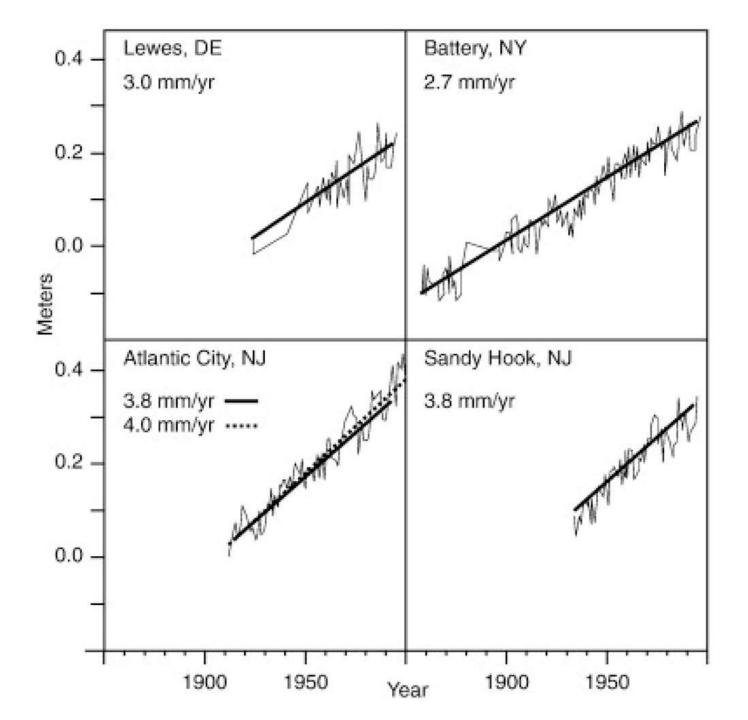


Assess Risk and Vulnerability









Total sea level rise projections for New Jersey.				
	Total	Total	Total	
	cm	inches	feet	
2050 best	40	16		1.3
2050 low	23	9		0.7
2050 high	60	24		2.0
2100 best	96	38		3.1
2100 low	50	20		1.6
2100 high	147	58		4.8
All values with respect to a year 2000 baseline.				

K. Miller and R. Kopp – Rutgers University



#### Overview

Use the slider bar above to see how various levels of sea level rise will impact this area.

Levels represent inundation at high tide. Areas that are hydrologically connected are shown in shades of blue (darker blue = greater depth).

Low-lying areas, displayed in green, are hydrologically "unconnected" areas that may flood. They are determined solely by how well the elevation data captures the area's hydraulics. A more detailed analysis of these areas is required to determine the susceptibility to flooding.

Inderstanding the Map



### www.NJFloodMapper.org

### **Critical Facilities and Sea level Rise**



Evacuation Routes

#### verview

y overlaying facility locations on a map that epicts sea level rise, a community can identify the otential impact that sea level rise can have on ulnerable locations.

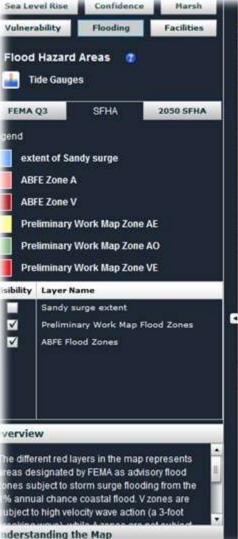
he location of various community facilities are epicted on this map.

iderstanding the Map

ditional Information

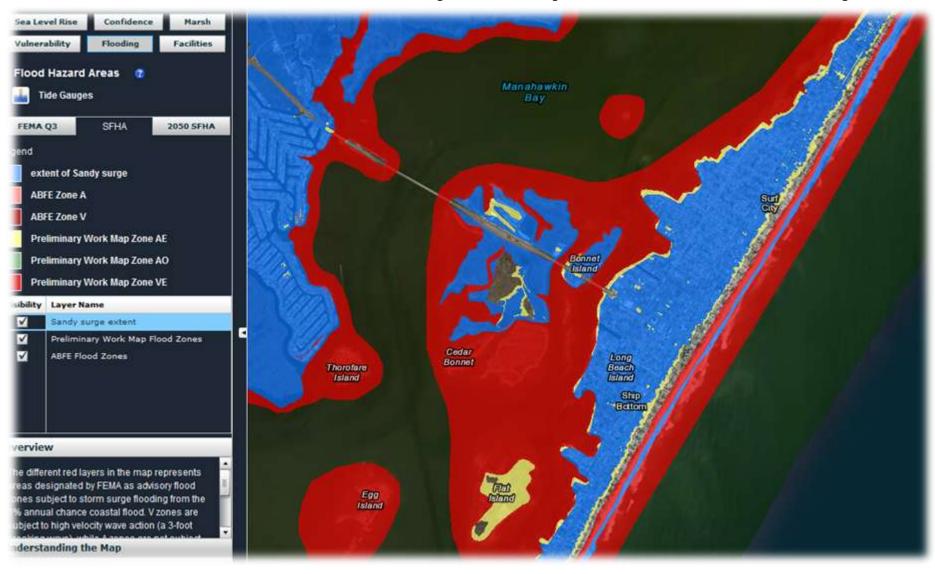


## **FEMA Preliminary Maps**

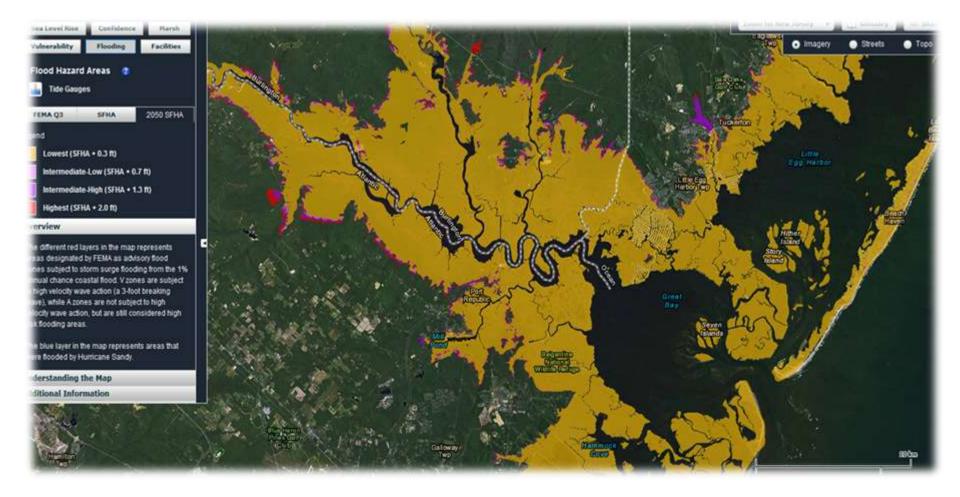




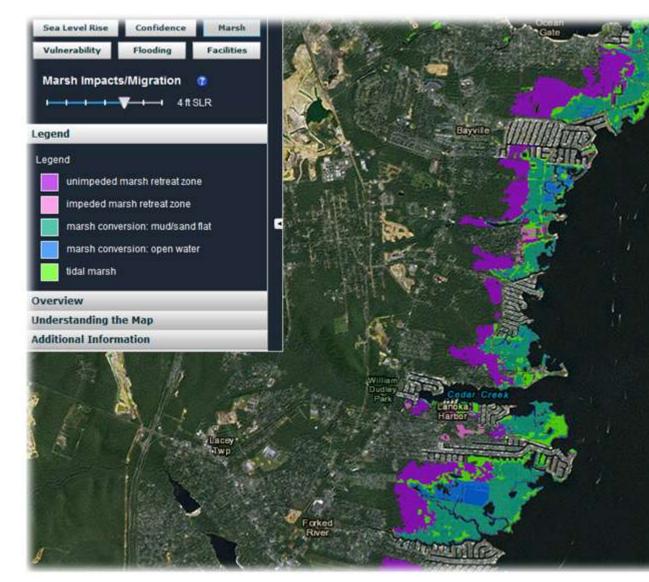
### FEMA Preliminary Maps and Sandy



## 2050 Special Flood Hazard Areas



## Marsh Migration





Home Climate Change Linkages FAQ Tutorials Flood M

#### Getting to Resilience A Community Planning Evaluation Tool

This online self assessment process is a tool to assist communities to reduce vulnerability and increase preparedness by linking planning, mitigation, and adaptation. Through this assessment you will find out how preparedness can be worth valuable points through FEMA's Community Rating System and Sustainable Jerse

#### Plan for your community's future in the face of climate change

#### ange Get Started

#### HOW DO I GET TO RESILIENCE?

Enabling communities to be prepared and more resilient.

#### Map Flood Vulnerability This user-friendly online flood

mapper will help you better visualize your community's susceptibility to flooding and sea level rise.

#### Assemble Municipal Plans The Community Plan Checklist includes a list of municipal and county documents that may assist

you in the completing your evaluation

Complete the Evalua Identify planning, mitga adaptation opportunities vulnerability to flooding rise and build capacity resilience.

#### Discover Links with Other Municipal Programs

This tool will help you identify connections between preparedness and programs like FEMA's Community Rating System, Hazard Mitigation Planning and Sustainable Jersev

#### Explore Related Resources

Additional tools and best management practices that will help you with vulnerability assessments, outreach, integrated planning, storm preparedness and mitigation.







### www.PrepareYourCommunityNJ.org

### Plan for the Future



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**Get Started Now** 

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Complete the Evaluation

3

Identify planning, mitigation, and adaptation opportunities to reduce vulnerability to flooding and sea level rise and build capacity for community resilience.

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### <u>Municipal Plans</u>

Master Plan

All-Hazards Mitigation Plan

Floodplain Management Plan

**Evacuation Plan** 

Emergency Response Plan

**Continuity of Operations Plan** 

Disaster Recovery Plan

**Open Space Plan** 

Stormwater Management Plan

### **Municipal Members**

Land use Planners Hazard Mitigation Planners **Floodplain Managers Emergency Managers** Stormwater Managers Natural Resource Managers **Municipal Engineers** Town Administrators Clerks



Survey Glossary Linkages FAQ Tutorials Flood Mapper Contact

Yes No

0

N/A Clear

### Getting to Resilience JC NERR Test **Risk and Vulnerability Assessments**

Section 1: Risk & Vulnerability Assessments

While the entire New Jersey shore is vulnerable to coastal hazards, the likelihood and severity of these hazards varies depending upon a community's geography and the integrity of its natural buffers. Risk and submanifier assessments can inform municipal officials of unclable populations, businesses, in a trocum, and natura resources. They can assure the best location for furture development or land acquisition. Simply identifying the nsks and vulnerabilities within one's community often builds the knowledge and capacity for hazard avoidance and mitigation.

#### SURVEY SECTIONS

Section 2: Public Engagement

Section 3: Planning Integration

Section 4: Disaster Preparedness and Recovery

Section 5: Hazard Mitigation Implementation

#### LINKAGES

See your links to other

Disaster Preparedness and Recovery

1.4 Is sea level rise identified as a hazard?

knowledge?

### **Hazard Mitigation Implementation**

1.6 Are conditions defined that could amplify the impact of a hazard, like storm surge inundation at high tide or erosion rates on stabilized shorelines?

**Planning Integration** 

Are hazard probability, frequency, magnitude, and duration defined?

historical information, existing plans and reports, scientific knowledge, and local



**FEMA** 

#### Things to Consider

Because you provided a "No" response to a question, action suggestions are provided that your community could consider taking to become more "resilient".

#### 😯 CRS Suggestion

Because you provided a "Yes" response to the question, you will see how your community could be earning valuable points for your efforts through the Community Rating System.



#### Hazard Mitigation Suggestion

Because you provided a "Yes" response to the question, you will see how your actions could be incorporated into you Hazard Mitigation Plan update.



#### O Sustainable Jersey Suggestion

Because you provided a "Yes" response to the question, you will see how your community could be earning points for your efforts through the Sustainable Jersey.



#### Inland Suggestions

As in Inland community, you have considerations that are different than coastal communities. We have provided suggestions for how these topics translate from coastal issues into inland issues.







Urban Coast Institute



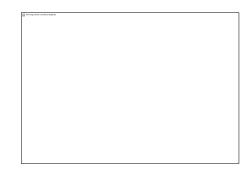
## Resilience.





NJ Climate Adaptation Alliance





### **Post-Sandy Strategic Recovery Planning**







- Highlands
- Sea Bright
- Little Egg Harbor
- Tuckerton
- Downe
- Commercial
- Maurice River
- Brick

### **Public Access Resiliency Planning**





National Estuarine Research Reserve

- Toms River
- Carteret
- Millville
- Keyport
- Long Beach
   Township





### Implement and Adapt















### Governor Christie Signs Executive Order To Move Forward With Dune Construction And Other Flood Hazard Risk Reduction Measures

Wednesday, September 25, 2013 

Tags: Executive Orders

Directs Attorney General To Coordinate Acquisition Of Easements, Creates Office Of Flood Hazard Risk Reduction Measures To Lead Effort



## **For More Information:**



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National Estuarine Research Reserve