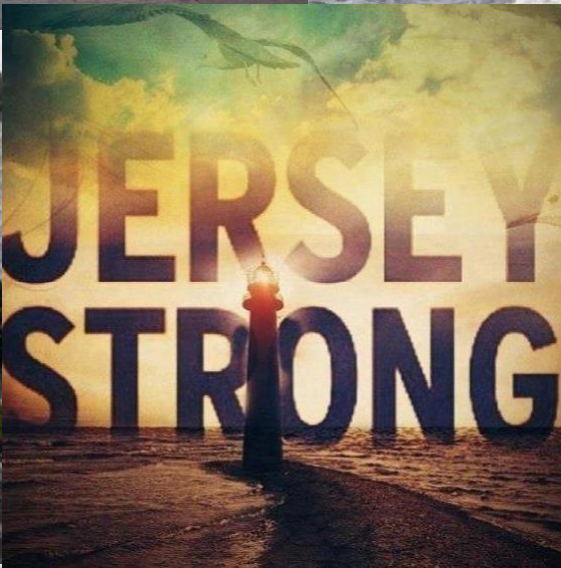




Lisa Auermuller
Watershed Coordinator

“Jersey Strong” Coastal Communities: Tools for Risk Awareness and Adaptation Planning





Coastal Community Resiliency Progression



Understand
the Issues



Assess Risk
and
Vulnerability



Plan for the
Future



Implement
and Adapt





Understand
the Issues



Photo credit: N. Psuty

Sea Level Rise Confidence Marsh
 Vulnerability Flooding Facilities

Sea Level Rise ?

6 ft SLR

Legend

- Water Depth
- Low-lying Areas
- Visualization Location

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.

Understanding the Map

Additional Information



Assess Risk and Vulnerability

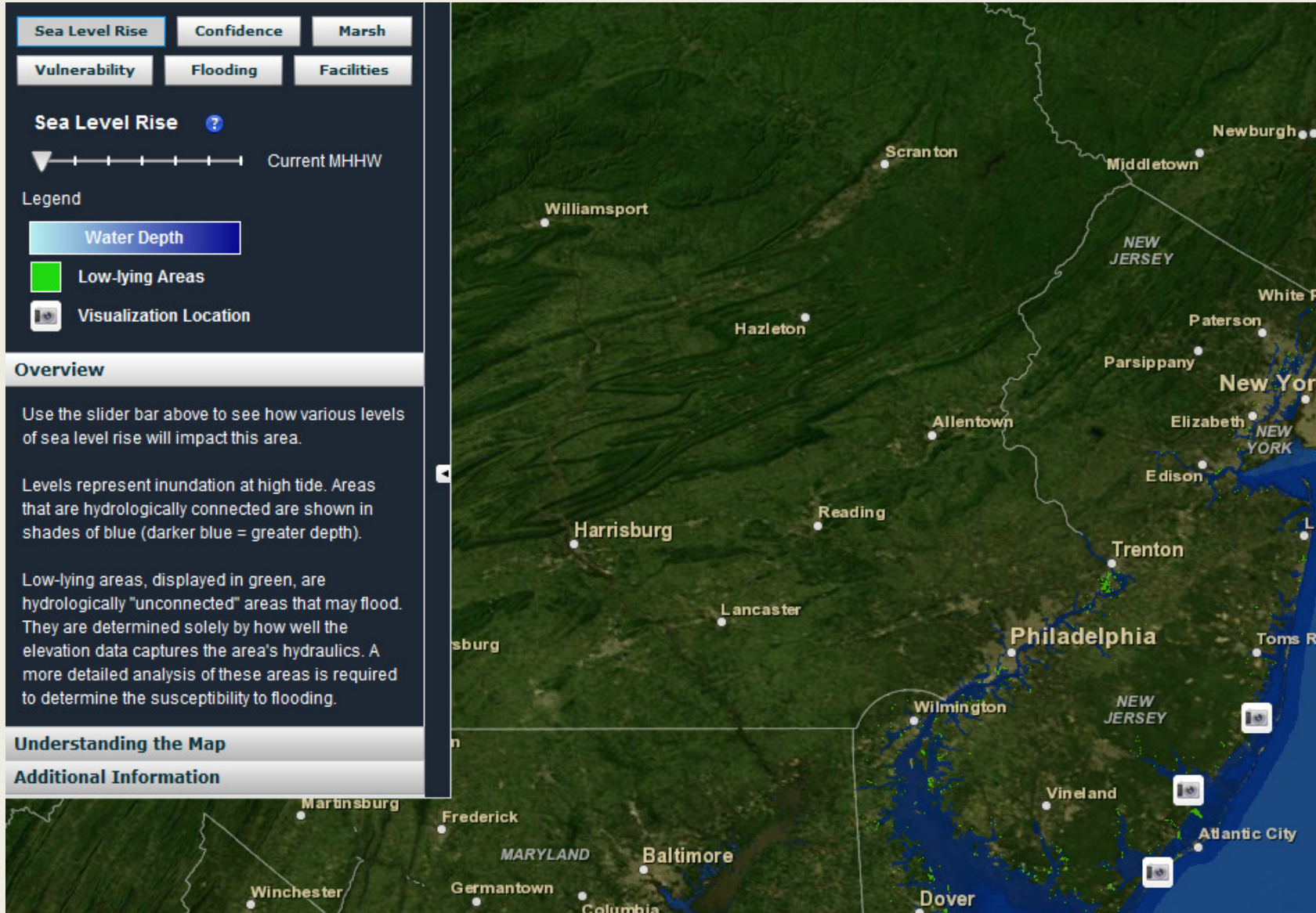


How did we doing this?

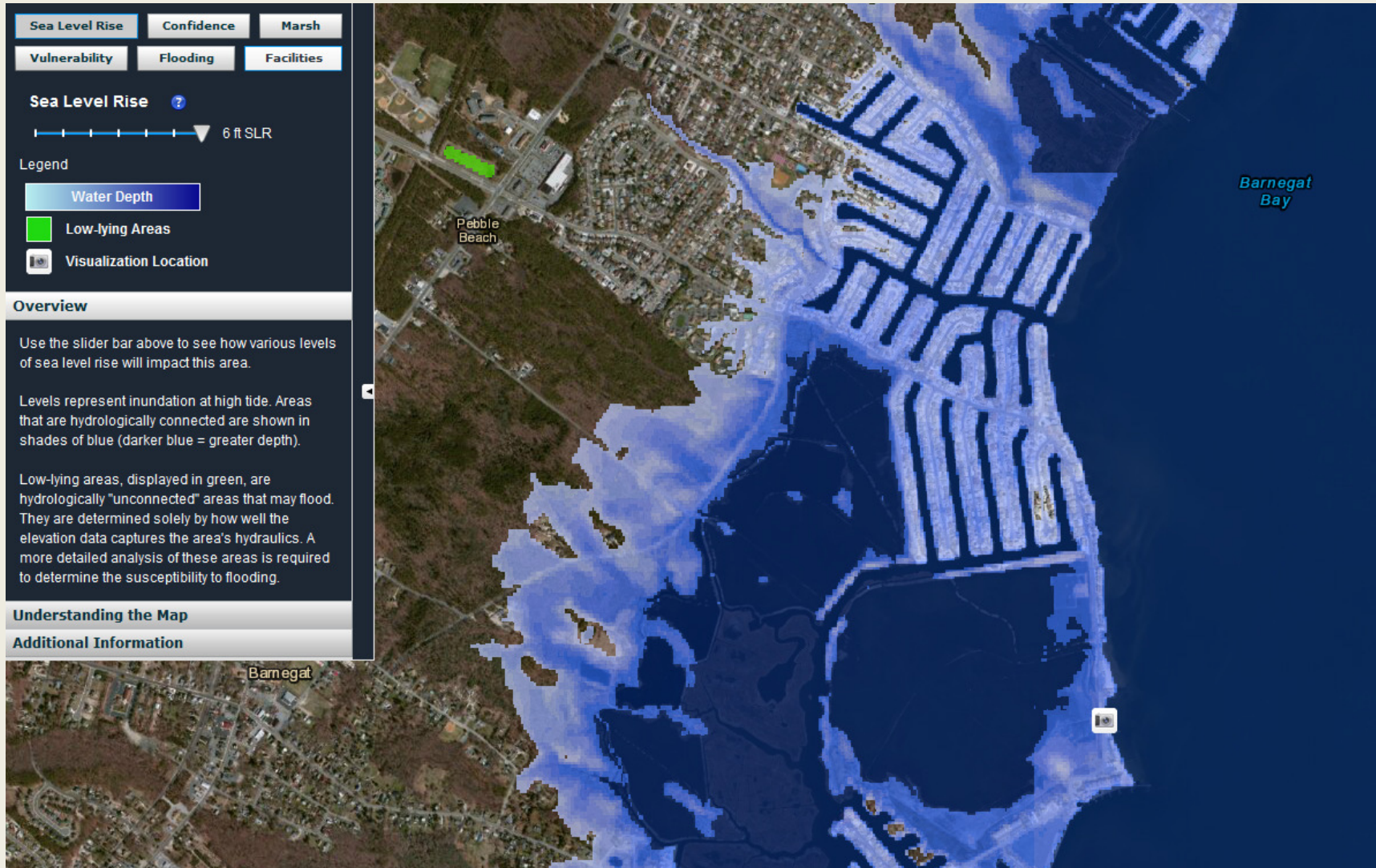
- Website Usability Testing
- Needs Assessment
- Beta Version
- “Final” version



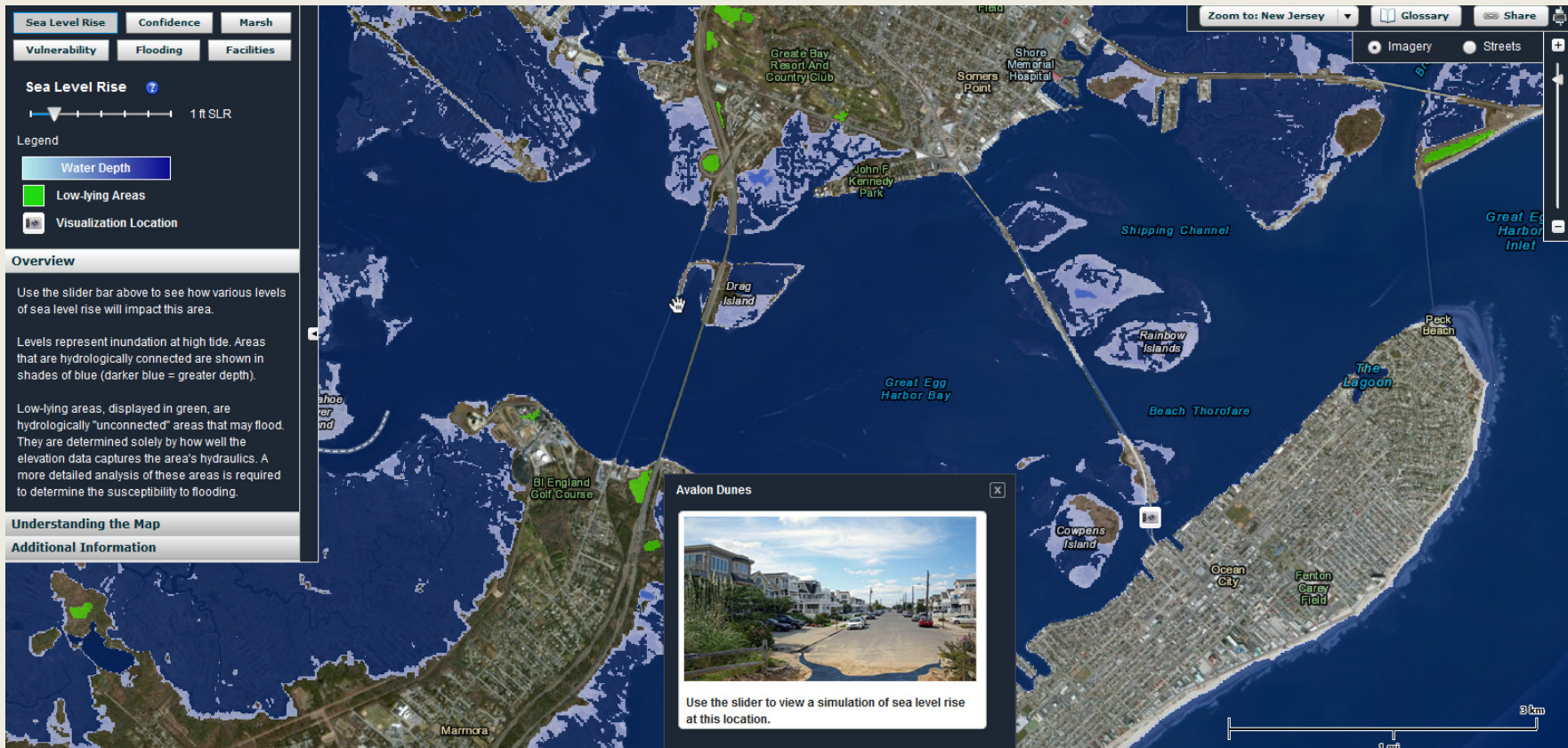
Navigating the Website



Sea Level Rise Mapping



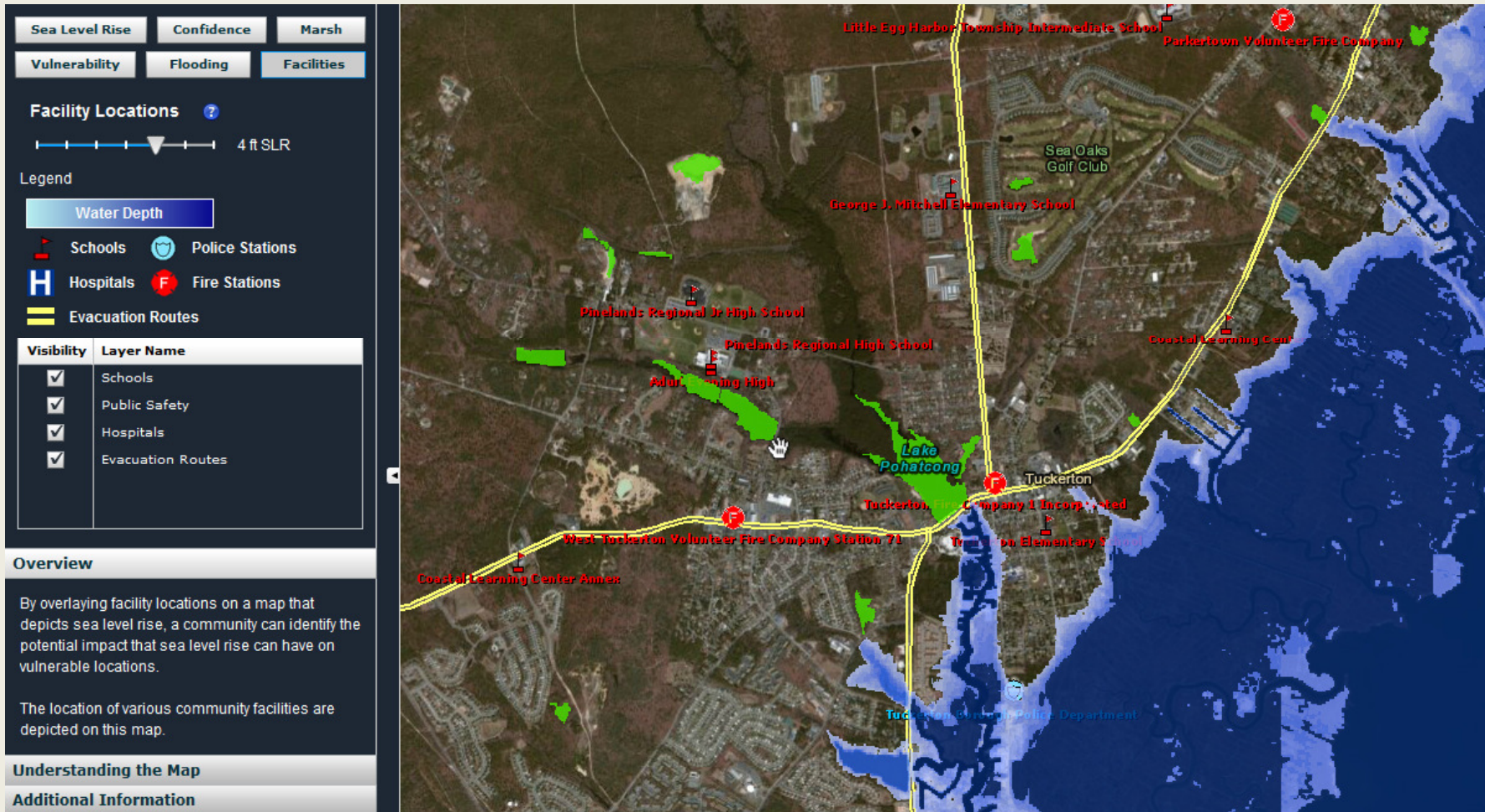
Viewing Sea Level on the Ground



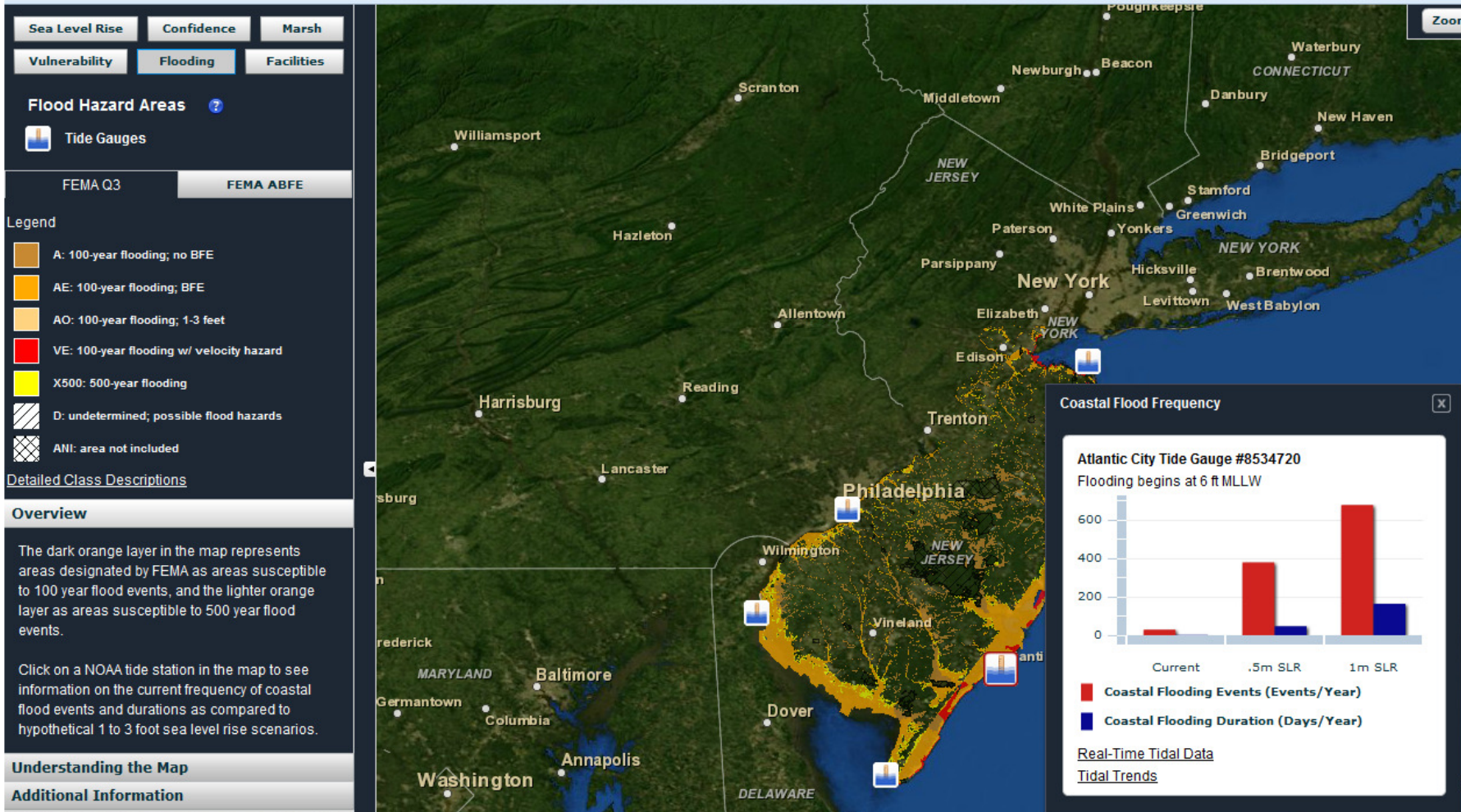
Viewing Sea Level on the Ground



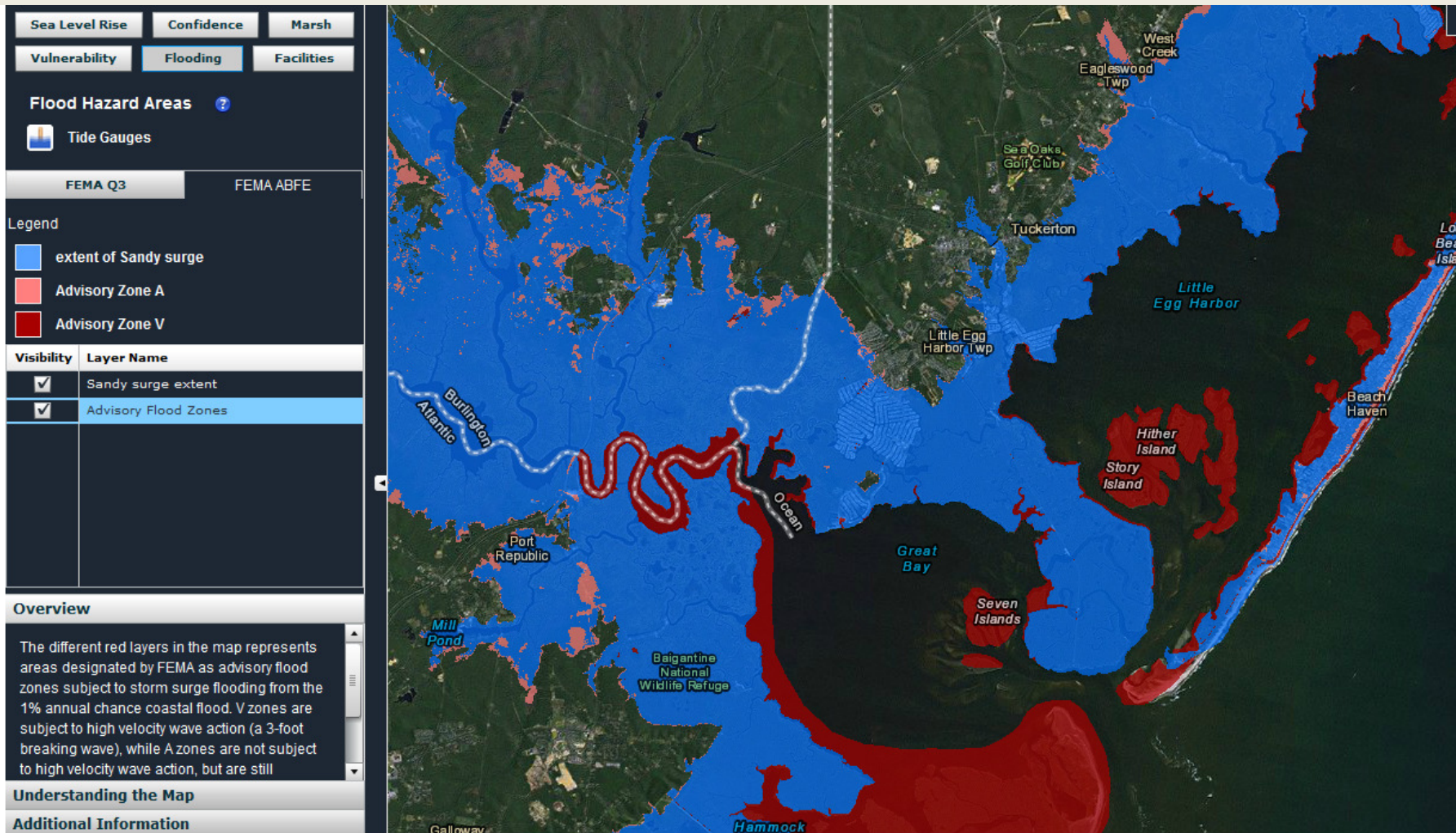
Facilities and Sea Level Rise



Flood Hazard Areas



Flood Hazard Areas





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Home Climate Change Linkages FAQ Tutorials Flood Mapper C



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 your preparedness can be worth valuable points through FEMA's Community Rating System and Sustainable Jersey.

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

[Get Started Now](#)

HOW DO I GET TO RESILIENCE?

Enabling communities to be prepared and more resilient.

1 Map Flood Vulnerability

This user-friendly online flood mapper will help you better visualize your community's susceptibility to flooding and sea level rise.

2 Assemble Municipal Plans

The Community Plan Checklist includes a list of municipal and county documents that may assist you in the completing your evaluation.

3 Complete the Evaluation

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

4

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 Jersey.

Explore Related Resources

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



FEMA



www.PrepareYourCommunityNJ.org

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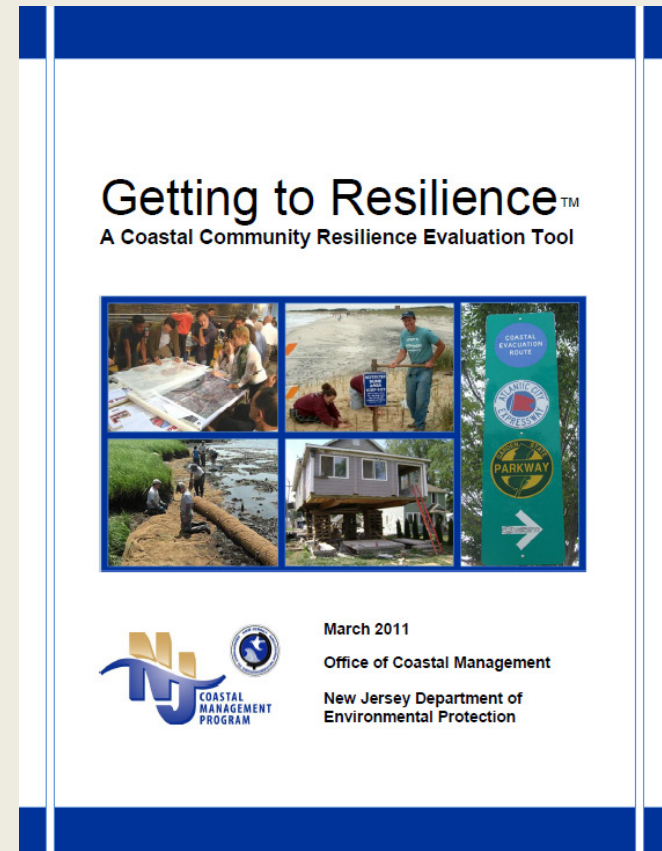
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Plan for the Future

Background on the Tool

- Originally a Paper Document meant to be facilitated.
- Linkages added with FEMA's CRS, hazards Mitigation Planning and Sustainable Jersey.



www.PrepareYourCommunityNJ.org



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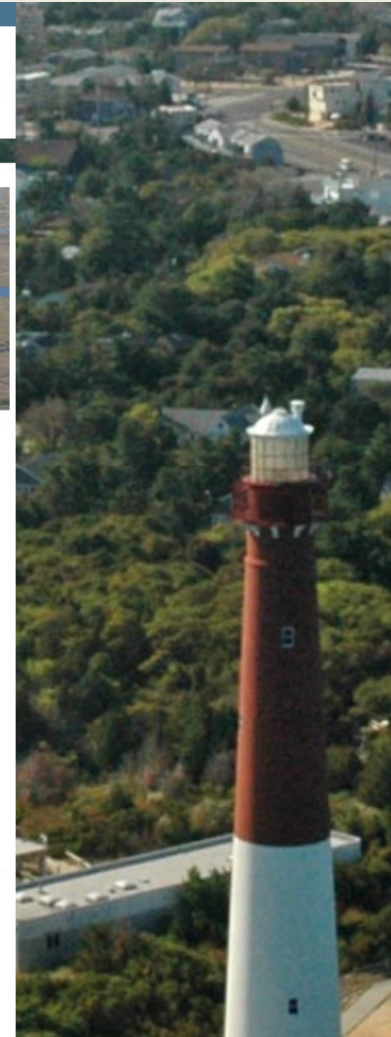
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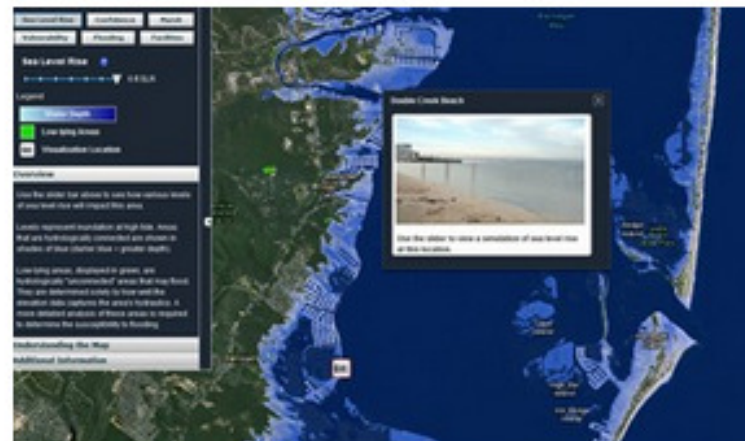
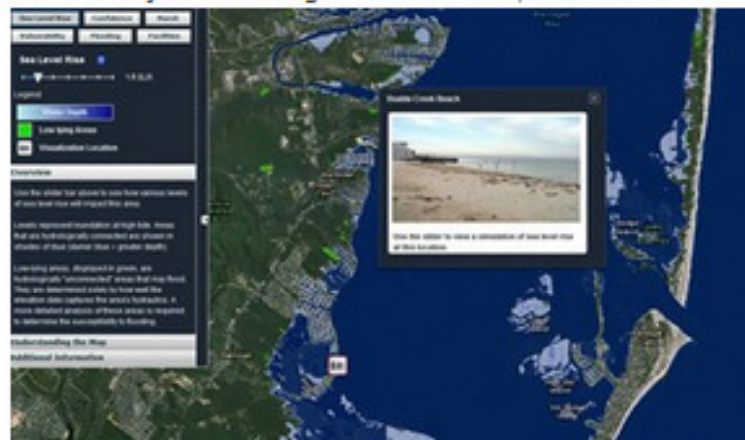
Using the NJFloodMapper to Understand your Current and Future Risk

In order to answer the evaluation questions posed by the Getting to Resilience you are going to have to know your current and future risk and hazards from flooding. The [NJFloodMapper](#) is sea level rise and flood mapping website that visualizes different inundation scenarios and overlays additional data layers including critical facilities, evacuation routes, FEMA flood maps (regulatory and Advisory Base Flood Elevation Maps) and the extent of inundation from Super Storm Sandy. The site is further enhanced with on-the-ground photo visualizations of inundation impacts at iconic Jersey Shore locations.

Additional data layers to explore include social and economic vulnerability, the potential for marsh migration and percentage of confidence in sea level rise risks.

The [NJFloodMapper](#) uses a Google Maps platform so it is a user friendly tool to help communities visualize their risks. You can print your maps or share your maps electronically using the "share" button.

Explore the website at: NJFloodMapper.org



Assemble Municipal Plans

Plans, Ordinances, and Codes	Yes	No	Adoption Year	Update Frequency
Municipal Master Plan				
All-Hazards Mitigation Plan				
Floodplain Management Plan				
Evacuation Plan				
Emergency Response Plan				
Continuity of Operations Plan				
Disaster Recovery Plan				
Post-Disaster Recovery Plan				
Capital Improvements Plan				
Economic Development Plan/Strategy				
Coastal Plan or Element				
Shoreline Restoration Plan				
Open Space Plan				
Stormwater Management Plan				



Getting to Resilience JC NERR Test

A Community Planning Evaluation Tool

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 vulnerability assessments can inform municipal officials of vulnerable populations, businesses, infrastructure, and natural resources. They can also reveal the best location for future development or land acquisition. Simply identifying the risks and vulnerabilities within one's community often builds the knowledge and capacity for hazard avoidance and mitigation.

Question	Yes	No	N/A	Clear
1.1 Are previous coastal hazards and disasters identified and mapped through historical information, existing plans and reports, scientific knowledge, and local knowledge?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>
1.2 Are hazard probability, frequency, magnitude, and duration defined?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>
1.3 Is coastal erosion and/or shoreline change identified as a hazard?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>
1.4 Is sea level rise identified as a hazard?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>
1.5 Are historic rates of sea level defined?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>
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?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="button" value="x"/>

1.7 Are maps used to define the spatial extent of coastal hazards?

SURVEY SECTIONS

Section 1: Risk & Vulnerability Assessments

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 programs

Linkages with other Municipal Programs

Planning for the future and being prepared is always a good practice for municipalities. It is even better when those preparations can reward your community. Through this online questionnaire, you will find out how your preparedness can be worth valuable points through FEMA's Community Rating System (CRS) and Sustainable Jersey. Also, the outputs provided at the completion of the questionnaire can strengthen local/county all-hazards and emergency operations plans. Ultimately being prepared will save lives and money.

You can find out more about these programs below:



The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management.



Sustainable Jersey is a certification program for municipalities in New Jersey that want to go green, save money, and take steps to sustain their quality of life over the long term.



Mitigation Plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process is as important as the plan itself. It creates a framework for risk-based decision making to reduce damages to lives, property, and the economy from future disasters.

Hazard mitigation is sustained action taken to reduce or eliminate long-term risk to people and



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LINKAGES

See your links to other programs

1.7 Are maps used to define the spatial extent of coastal hazards?

Section 1: Risk & Vulnerability Assessments

1.1 Are previous coastal hazards and disasters identified and mapped through historical information, existing plans and reports, scientific knowledge, and local knowledge?

CRS Suggestions

Section 410 of FEMA's Community Rating System offers points for communities conducting a flood study; it must map and regulate areas of special flood related hazards. Mapping previous coastal hazards through examining historical information, existing plans and reports, and scientific/local knowledge can be included in this type of study.

CRS points : 460

Hazard Mitigation Suggestions

A Hazard Mitigation Plan in development should include the identification and mapping of previous coastal hazards and disasters, through historical information, existing plans and reports, scientific knowledge, and local knowledge. An existing plan, if lacking, can include this element when updating the plan.

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

Things to Consider

Defining the probability, frequency, magnitude and duration of coastal hazards can be included in the development or update of the community's Hazard Mitigation Plan.

1.3 Is coastal erosion and/or shoreline change identified as a hazard?

Inland Suggestions

Inland communities should consider the identification of other climate-change related hazards; such as flash flooding, stream bank erosion/destabilization, etc.; as important elements to include in the development or update of the community's Hazard Mitigation Plan.

Hazard Mitigation Suggestions

The identification of erosion and/or shoreline change as a hazard for coastal communities can be included in the development or update of the community's Hazard Mitigation Plan.

LINKAGES RESULTS

Section 1: Risk & Vulnerability Assessments

Section 2: Public Engagement

Section 3: Planning Integration

Section 4: Disaster Preparedness and Recovery

Section 5: Hazard Mitigation Implementation

SURVEY

[Return to Survey](#)



Implement
and Adapt

Ocean County HMP

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Hazard Mitigation Links

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[New Jersey Office of
Emergency Management Home
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[New Jersey Department of
Environmental Protection
Home Page](#)

Welcome to the Ocean County 2013 Hazard Mitigation Plan Project Website



RUTGERS
Institute of Marine
and Coastal Sciences

Critical Gaps/Needs for Ongoing Climate Resiliency

- State Government Support for Climate Adaptation
- Better Government Coordination
- More Communities Willing to Take a Lead
- More Projects on the Ground for Lessons Learned

