

# 2015 Rising Seas Summit

## Municipal Coastal Vulnerability Assessment A Tool for New Jersey Municipalities

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# Sustainable Jersey



Sustainable Jersey identifies actions to help towns and schools become more sustainable




Provides tools, resources, and guidance to make progress



Provides access to grants and funding for participating communities



## Sustainable Jersey Municipal Certification Program




430 (76%) NJ municipalities participating

88% of NJ's population lives in these communities

189 municipalities certified:

- 157 towns at bronze level
- 32 towns at silver level

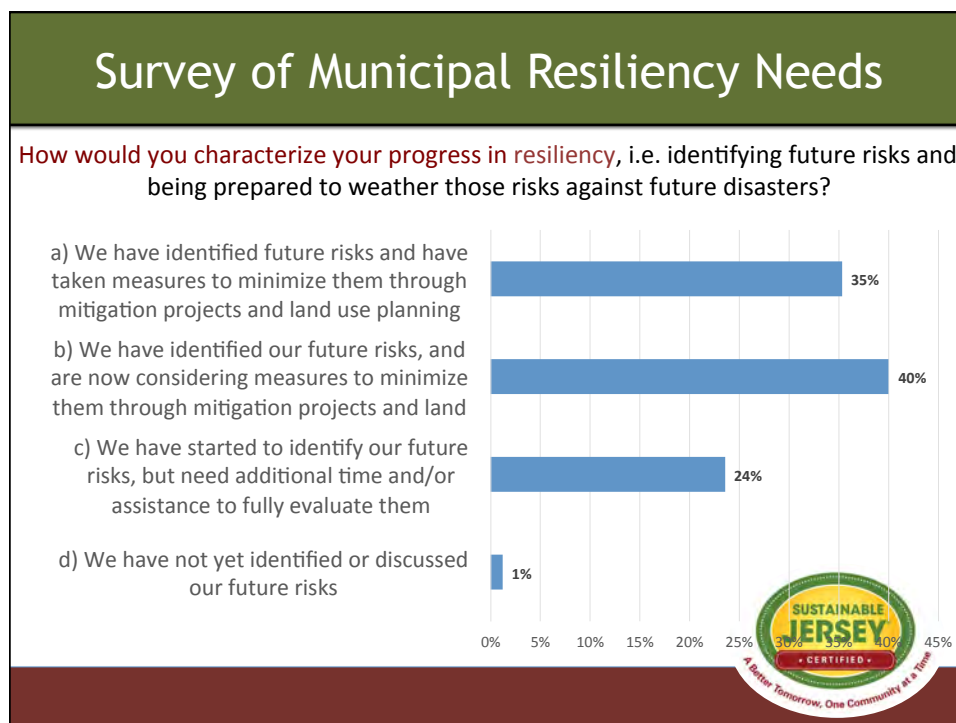
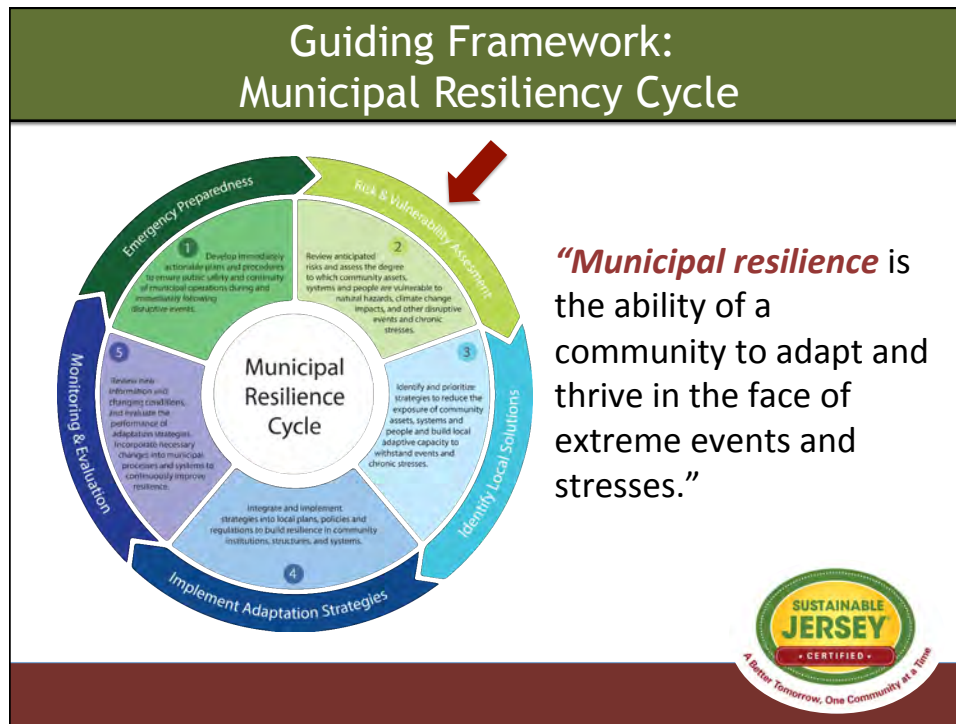


## Sustainable Jersey Resiliency Program

*“To help municipalities strengthen their resiliency to the impacts of climate change.”*

- Conduct Resiliency Research and Analysis
- Develop New Tools, Resources, and Standards
- Provide Technical Assistance, Outreach and Education to Communities
- Monitor and Track Municipal Progress
- Align Efforts and Collaborate with Partners





## Serving small & low-capacity communities

### Population Sizes of (172) Coastal & Tidally Influenced NJ Municipalities

Small ( $\leq 5K$ )	Medium (5K-40K)	Large (Over 40K)
60	86	26
(35%)	(50%)	(15%)

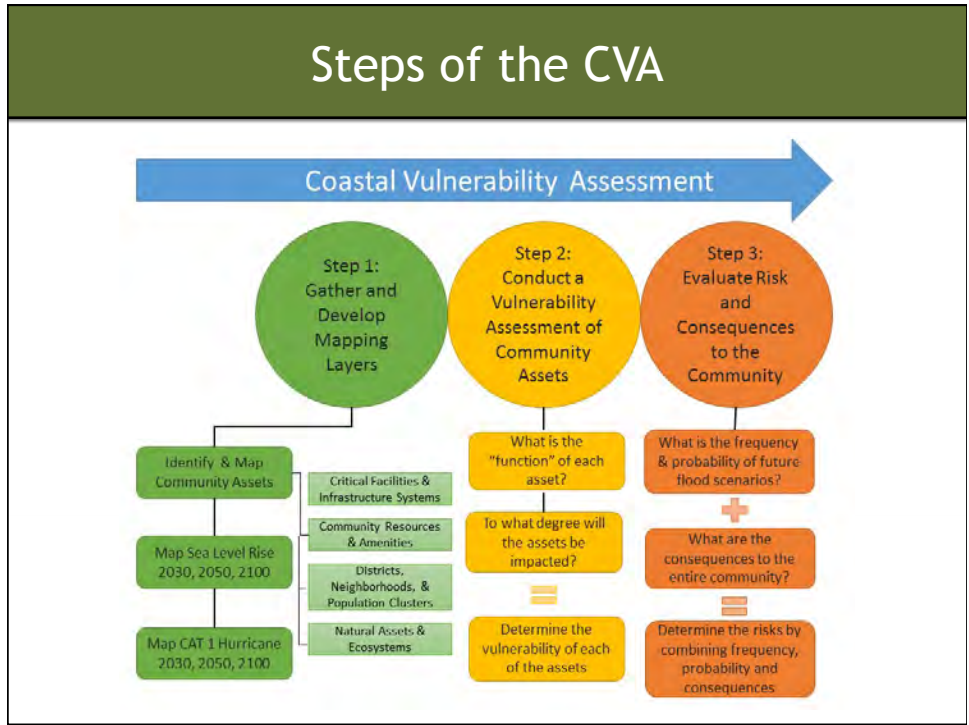


## Coastal Vulnerability Assessment (CVA)

***“Determines the degree to which a community’s assets will be impacted by coastal flooding, and the consequences it poses to the community.”***

- A municipal tool specific to New Jersey context
- Fills a gap in local vulnerability assessments
- Community assets approach (versus systems approach)
- Considers future sea level rise and future storm events



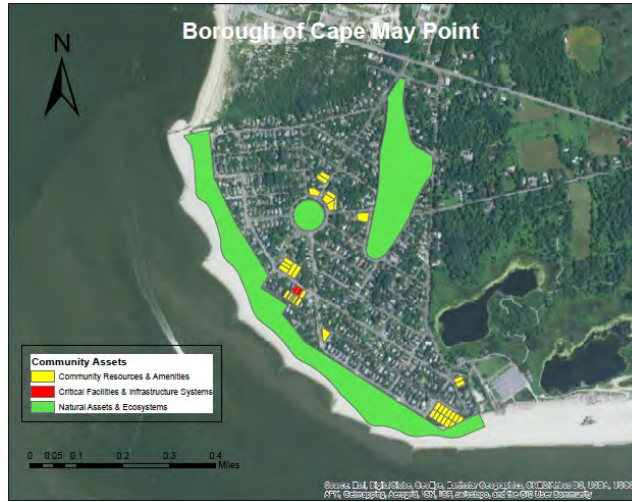


## Step 1: Gather/Develop Mapping Layers

### Community Asset Categories

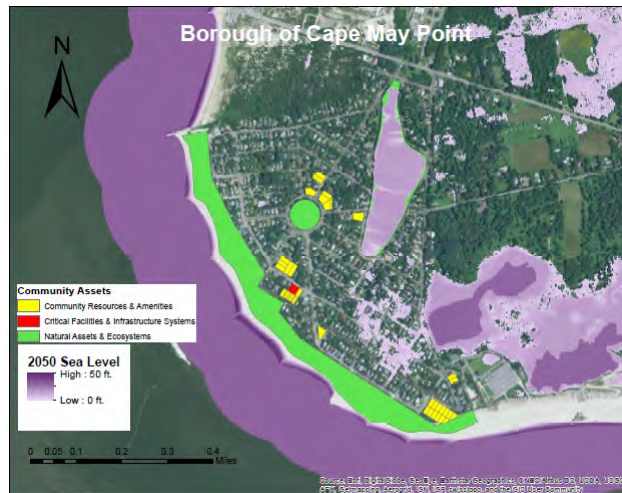
- Critical Facilities & Infrastructure Systems
- Community Resources & Amenities
- Districts, neighborhoods & Population Clusters
- Natural Assets & Ecosystems

# Step 1: Gather/Develop Mapping Layers



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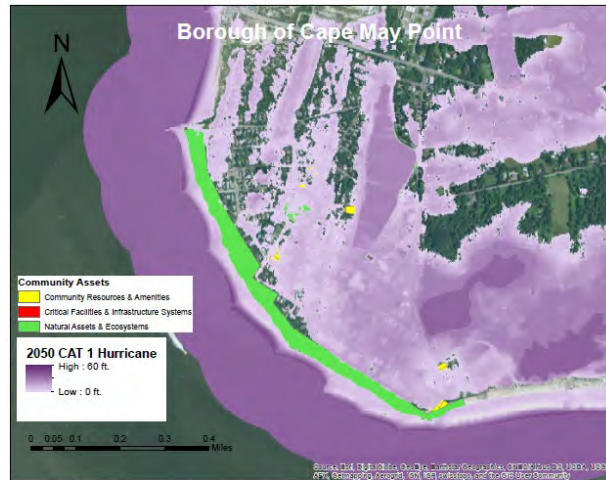
## 2050 Sea Level Rise Projections





## Step 1: Gather/Develop Mapping Layers

### Hurricane Category 1 Storm Surge



## Step 2: Conduct a Vulnerability Assessment of Community Assets

- 2a. **Describe the Function of Community Assets.** *What role do these assets play in the community?*
- 2b. **Describe Flood Hazard Exposure.** *Which of your community assets are in harms way?*
- 2c. **Determine Sensitivity.** *What is the degree of impairment to community assets as result of flooding?*
- 2d. **Determine Vulnerability.** *To what extent is a community asset predisposed to be adversely affected by flood hazards?*



### Step 3: Evaluate Overall Risks to the Community

3a. **Probability of Flood Hazard Scenarios.** *How likely are they to occur?*

3b. **Determine Magnitude of Consequences.**  
*What is the magnitude or severity of consequences if the flooding were to occur?  
How will the damage or loss of an asset affect your community?*



### Post-CVA: Reducing Vulnerabilities & Risks: Where to Go From Here

**Document and Share Your Findings**

**Incorporate Flood Hazard Probabilities**

**Identify Solutions to Reduce Vulnerabilities & Risks**





## Current Pilot Communities

- Cape May Point Borough
- Avalon Township
- Greenwich Township (Cumberland)
- Woodbridge Township

*Pilot 15 additional towns in 2016, with funding provided by the National Fish and Wildlife Foundation and NJDEP Coastal Planning Division as project manager.*



## Technical Issues & Challenges

- Community Buy-In
- Identification of Community Assets
- Mapping Flood Hazards
- Determining Vulnerability
- Probability of Flood Scenarios



## Resilient Coastal Communities Initiative



## What's Next for the CVA?

- Complete Pilot Communities
- Continued Peer Review
- Refine the CVA and Process
- Incorporate New Consensus Data/Info
- Create Sustainable Jersey Action to incentivize implementation



## 2015 Rising Seas Summit

Thanks!  
Questions?

