

Experiences and Best Practices to Address Climate Change in New Jersey

Moderator

Michael Catania, Duke Farms

Panelists

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May 4, 2016

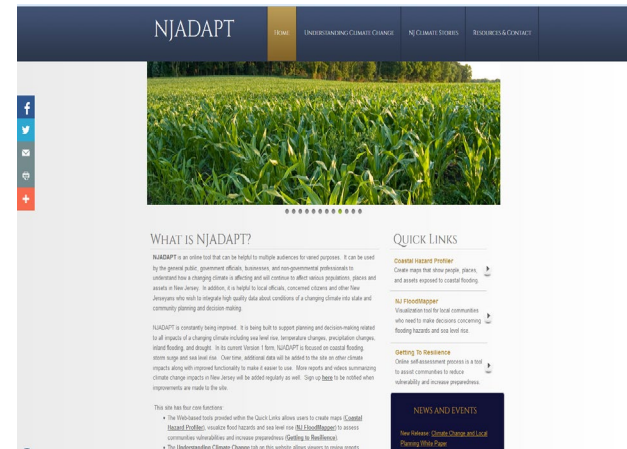
Preparing New Jersey For Climate Change

New Jersey Climate Adaptation Alliance

<http://njadapt.rutgers.edu/>



-Stakeholder Engagement
-Tools
-Resources
-Reports
-Videos
-Research



Ongoing Projects Address

-Public Health and CC
-Expert Panel: Sea Level Rise
-Water Supply and CC
-Social vulnerability
-Community level engagement
-Pollution Prevention/Toxics



PSEG Electric & Gas System

Sandy Impact

2 million Customers impacted

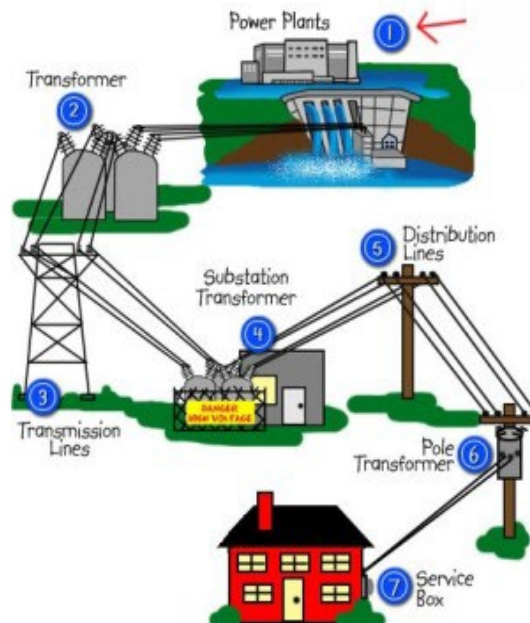
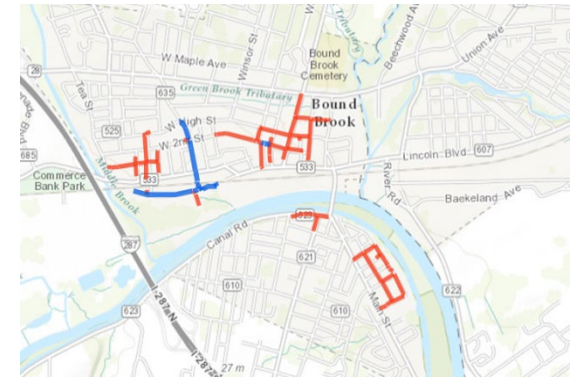
90% lost power during the event

14 Switching Stations affected – 33%

51 transmission lines out,

96 PSE&G Substations affected – 39%

6 Generating Stations affected



Actions to Adapt Infrastructure

Raise or relocate switching and substations that were damaged by water in recent storms.

Replace and modernize low-pressure cast iron gas mains in or near flood areas.

Redundancy built into the system, reducing outages when damage occurs.

Deploying smart grid technologies to better monitor system operations to increase our ability to more swiftly deploy repair teams.

Construct Flood protection at gas metering stations, a liquefied natural gas station and generating stations affected by Sandy or located in flood zones.

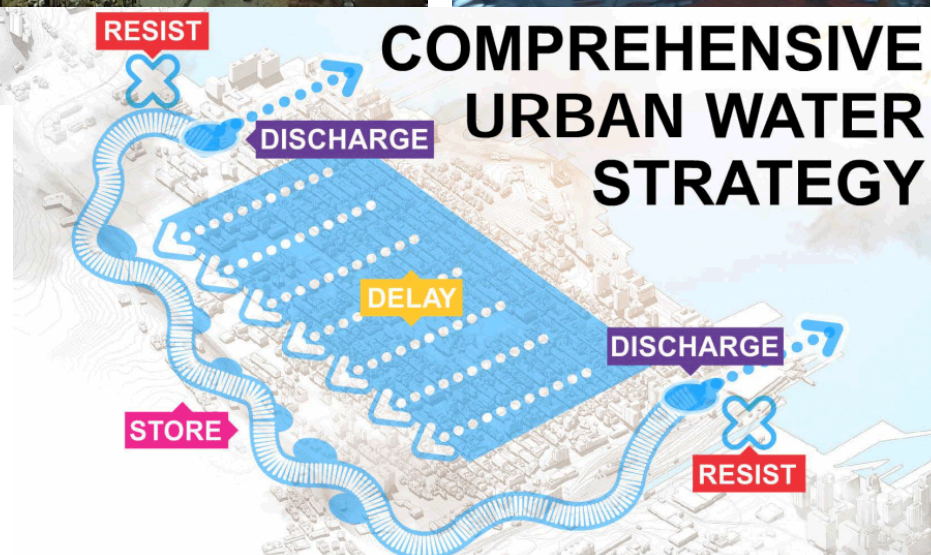
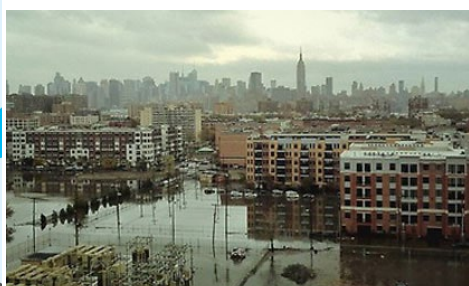
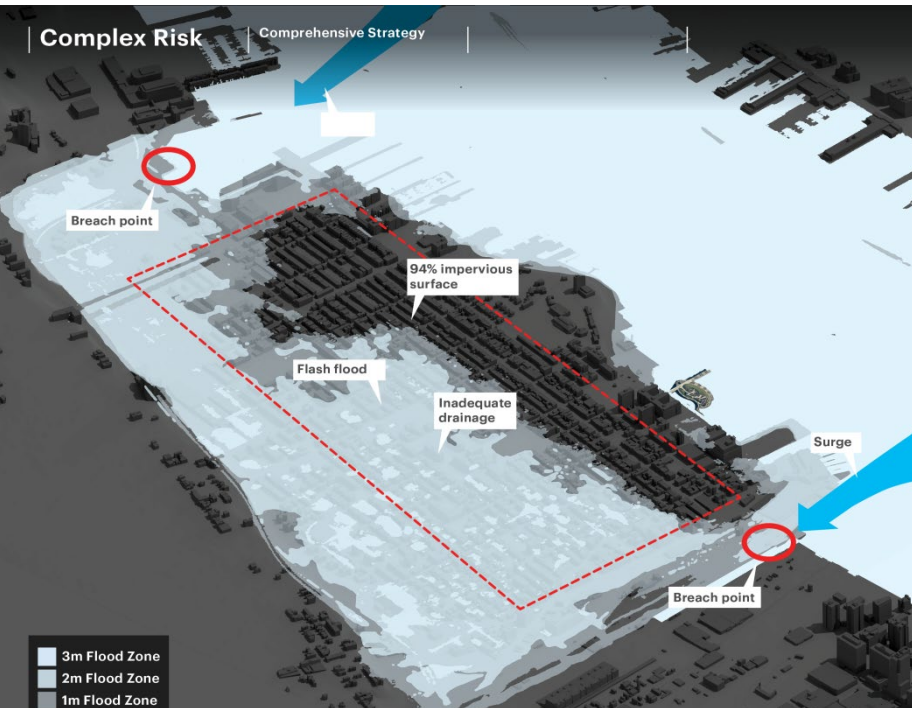
Jacques Cousteau National Estuarine Research Reserve

Resilience.





City of Hoboken, New Jersey



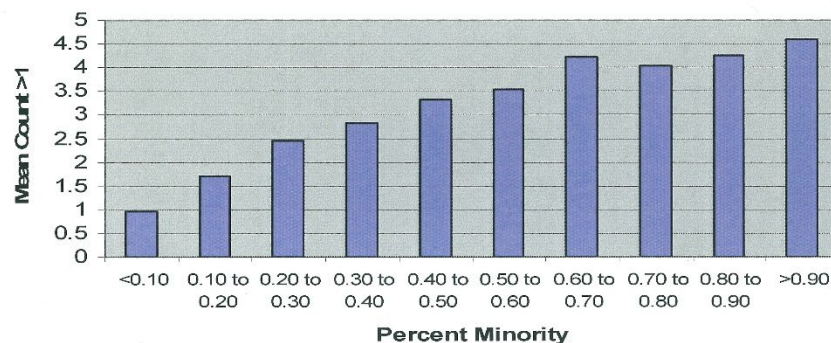
- **Grow crops well suited to NJ/New varieties**
- **Drip irrigation, monitors, sensors, weather station, satellite computer network**
- **Solar panels; Energy efficiency**
- **Extend Growing Season**
- **Diversify**
- **On-Farm & Community Markets**
- **IPM & Organic Practices**



Thomas Edison State University

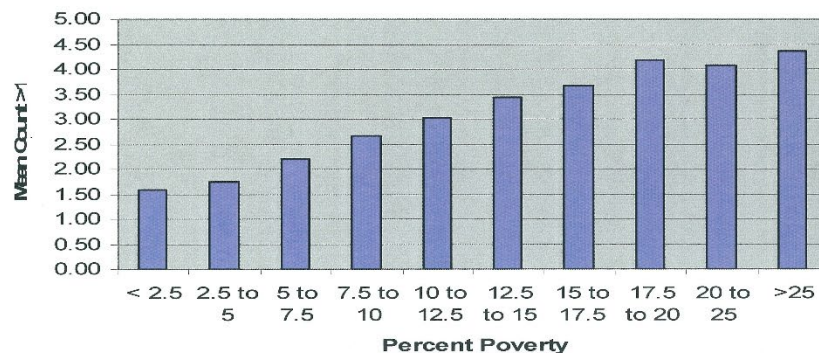
Relationship between Cumulative Impact and Social/Economic Indicators

Figure 1: Relationship Between Cumulative Impact and Percent Minority



- Grouped all block groups based on percent minority and poverty
- Calculated average cumulative impact score for combined groups
- Cumulative impact scores increase steadily with increasing percent minority and poverty

Figure 2: Relationship Between Cumulative Impact and Poverty



Duke Farms



Reducing Carbon and Mitigating Climate Change



Energy
Conservation



Carbon Footprint
Analysis



Renewable Energy



Landscaping and
Farming Practices



Carbon
Sequestration



Public Education
and Professional
Training