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THE STATE UNIVERSITY OF NEW JERSEY

Experiences and Best Practices to Address Climate Change in New Jersey

Moderator

Michael Catania, Duke Farms

Panelists

Russell Furnari, PSEG Services Corporation

Chris Huch, JC NERR

Stephen Marks, City of Hoboken

Pamela Mount, Terhune Orchards

Nicky Sheats, Thomas Edison State University

May 4, 2016

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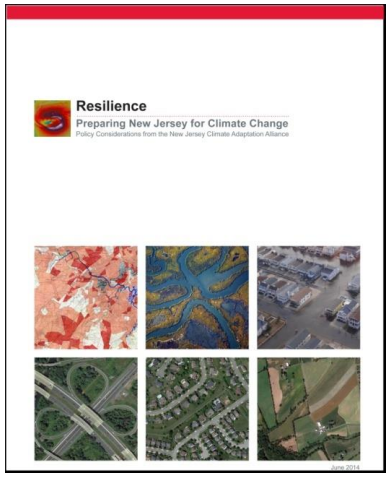
Preparing New Jersey For Climate Change
New Jersey Climate Adaptation Alliance
http://njadapt.rutgers.edu/

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



<u>Ongoing Projects Address</u>
-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

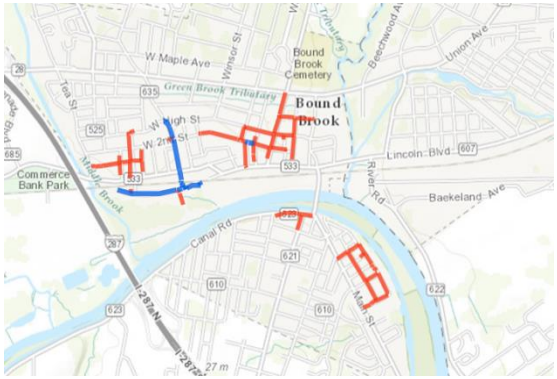
90% lost power during the event

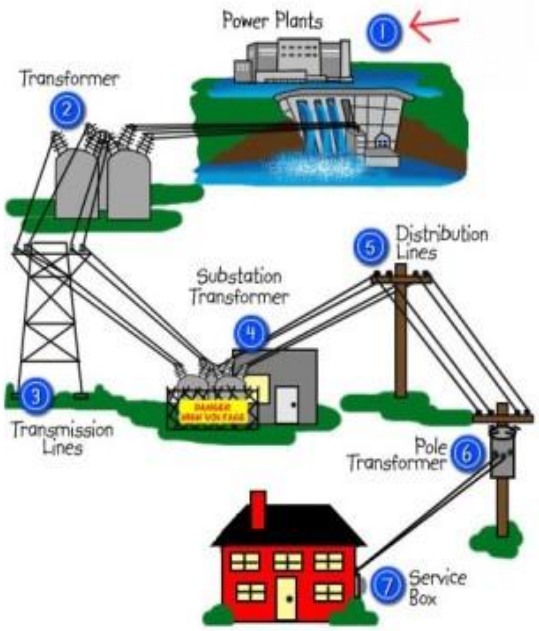
14 Switching Stations affected – 33%

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 protect ion 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.

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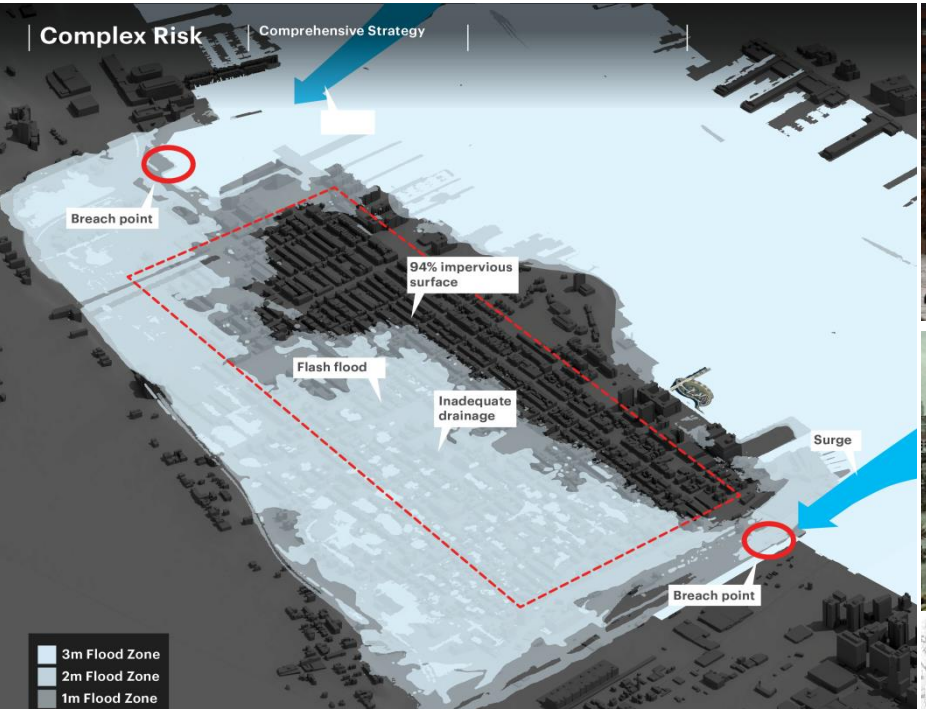
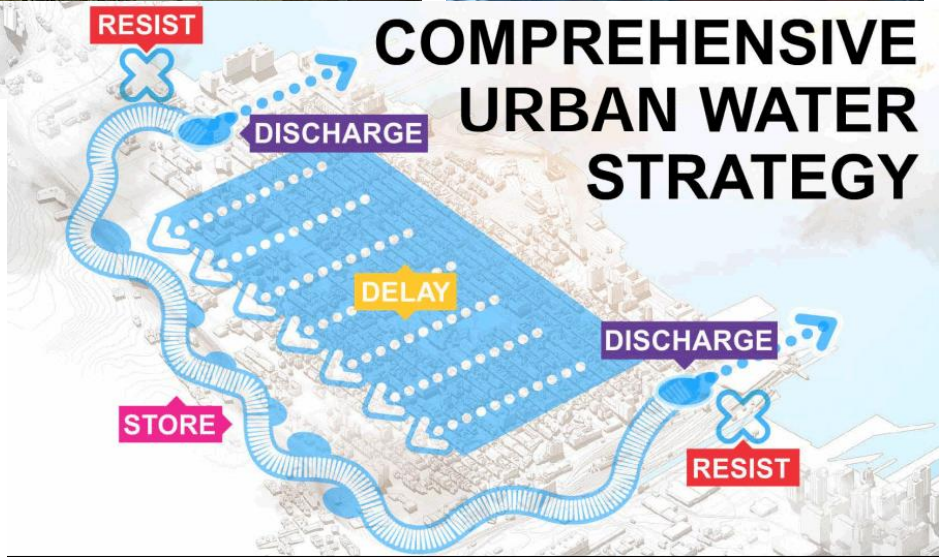
City of Hoboken, New Jersey





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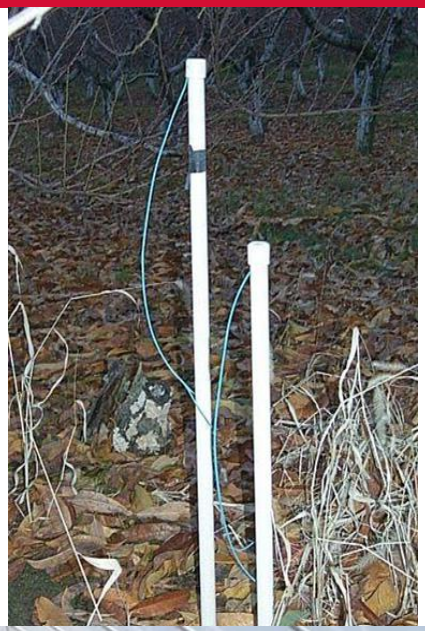
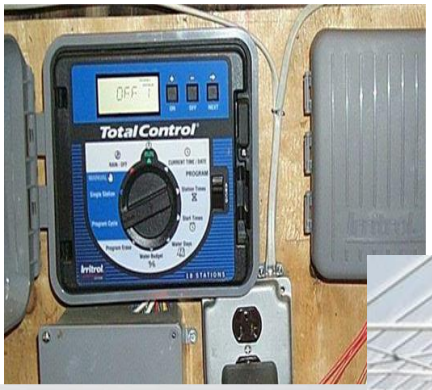
Terhune Orchards

- 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

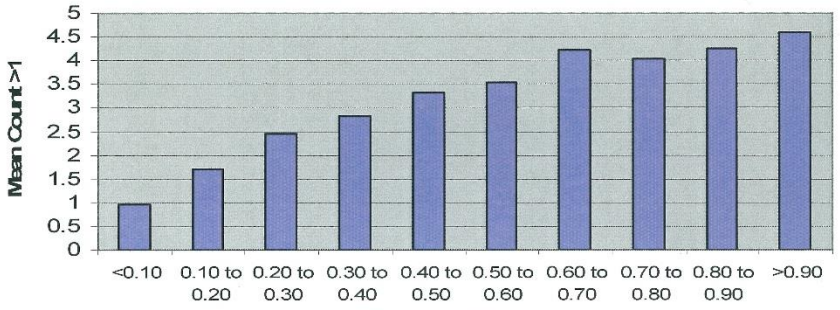
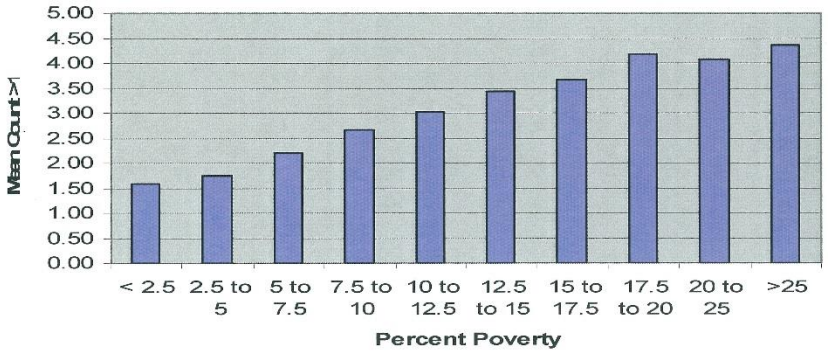


Figure 2: Relationship Between Cumulative Impact and Poverty



- 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

Duke Farms


Reducing Carbon and Mitigating Climate Change
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Energy Conservation
Carbon Footprint Analysis
Renewable Energy
Landscaping and Farming Practices
Carbon Sequestration
Public Education and Professional Training