



Department of  
Environmental  
Conservation



Climate Smart  
Communities

# Climate Smart Resilience Planning

## Identifying Opportunities to Adapt to Climate Change

Dazzle Ekblad (with content from Libby Zemaitis)  
DEC Office of Climate Change  
May 2017



**Climate Smart  
Communities**

## **Support for Local Climate Action**

**Assistance for communities to define their own best strategies for:**

- Reducing emissions, cutting costs of energy use
- Building resiliency in the face of climate change
- Transitioning to a green economy

**One of the few programs where local gov'ts can find:**

- Free technical support & guidance on climate change issues



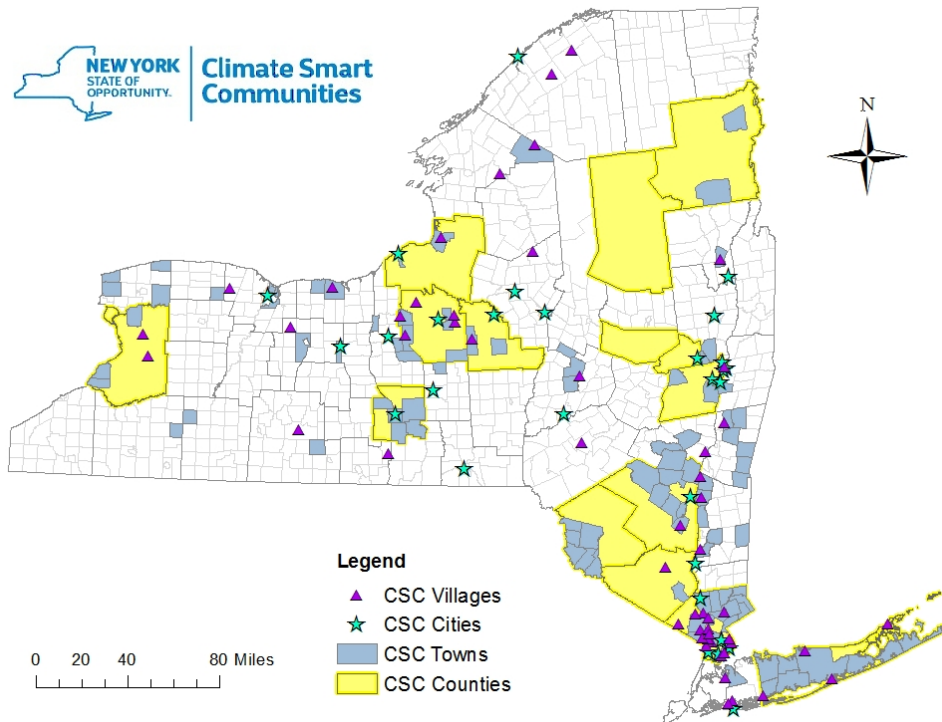
**Department of  
Environmental  
Conservation**

# What are the benefits?

- **Free technical assistance:**
  - Regional coordinators through NYSERDA
- **Guidance & tools:**
  - Extensive website: EE, RE, preparing for severe weather
  - Monthly webinars, email list, decision-support tools, certification = framework for action
- **Funding:** better positioned to compete for funds; CSC Grant Program via [CFA](#)
- **Leadership recognition:** state-level attention for local leaders
- **Networking:** learn with like-minded community leaders



# Climate Smart Communities



Since 2009:

- 198 Registered communities
- 10 Certified communities
- One-third of New Yorkers (6.7 M)
- Smallest: V. of Van Etten (537)
- Largest: Suffolk County (1.5 M)

- **Diverse community types**
- **Diverse ecosystems**

Full List of CSCs at

<http://www.dec.ny.gov/energy/56876.html>

# Registered vs. Certified Climate Smart Community

- **Registered = making a commitment**
  - Local gov't passes a formal municipal resolution adopting the 10-point CSC Pledge
- **Certified = leaders who've made concrete progress**
  - Earn points w/ documented actions to achieve Certified, Bronze, Silver or Gold levels
  - 1-10 points per action, 130+ total possible actions
  - Range of action types: planning, policies, outreach, implementation



# NY's Certified CSCs

- Ulster County (bronze)
- Village of Dobbs Ferry (bronze)
- City of Kingston (bronze)
- Madison County
- Town of Mamaroneck
- Town of East Hampton
- City of Albany
- City of Watervliet
- Town of Cortlandt
- Orange County



# Focusing events: Hurricanes Irene and Sandy devastated waterfront communities

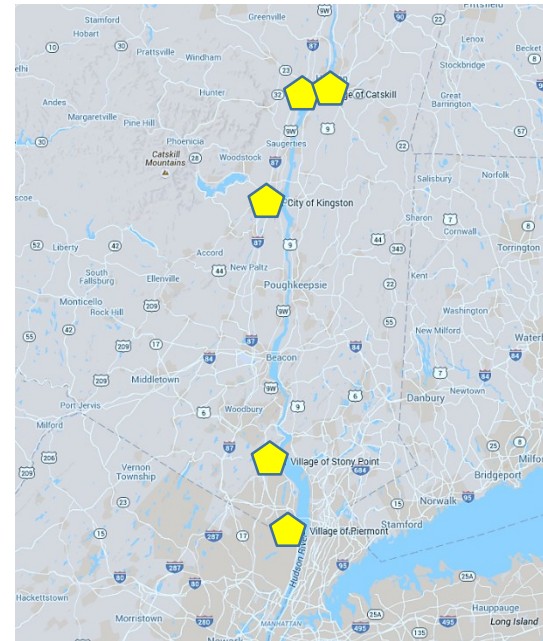


Department of  
Environmental  
Conservation

# Hudson Waterfront Flooding Task Forces: Helping communities adapt to climate risks



Hudson  
Catskill  
Kingston  
Stony Point  
Piermont



**Partners:** NY DEC Hudson River Estuary Program, NY Dept. of State, Scenic Hudson, Consensus Building Institute and others.

Hudson River resilience case studies at <http://www.dec.ny.gov/energy/93950.html>



Department of  
Environmental  
Conservation

# Climate Smart Resiliency Planning: checklist for identifying gaps at start of planning process

**New York State  
Climate Smart Communities  
Climate Smart Resiliency Planning**  
A Planning Evaluation Tool  
for  
New York State Communities  
Version 2.0

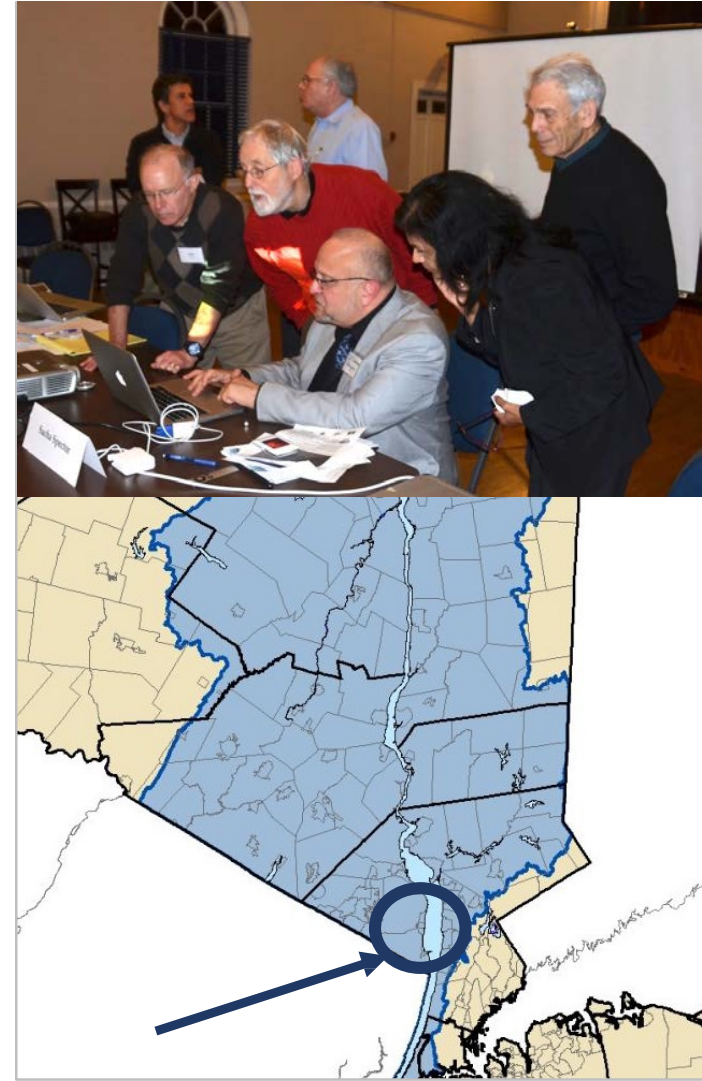


Climate Smart Communities is a program of the New York State departments of Environmental Conservation, Health, State and Transportation; State Public Service Commission; and State Energy Research and Development Authority.

October 2014

Section 1: Community Plan Checklist					
Plans, Ordinances, and Codes	Yes	No	Adoption Year	Update Frequency	Notes
Municipal Master Plan		X			Although though the county haz. mit. plan says yes (table 4-1)
Multi-Hazard Mitigation Plan	X		2010	5 years	Rockland County-level plan
Floodplain Management Plan	X				See A19- flood damage prevention ordinance
Evacuation Plan		X			
Comprehensive Emergency Management Plan		X			According to county haz. mit. plan Piermont has an emergency response plan (table 4-1)- may be referring to FD procedures
Continuity of Operations Plan		X			
Disaster Recovery Plan		X			According to county haz. mit. plan (table 4-1)
Long-term Recovery Plan		X			
Capital Improvements Plan		X			Updated budget, but no plan.
Economic Development Plan/Strategy		X			
Coastal Plan or Element	X		1992		LWRP, currently in the process of being updated
Shoreline Restoration Plan		X			
Open Space Plan		X			

# Case study: Village of Piermont



# CSRP assisted the Piermont task force in completing its initial objectives

“Identify overlaps, minimize conflicts and enhance opportunities...

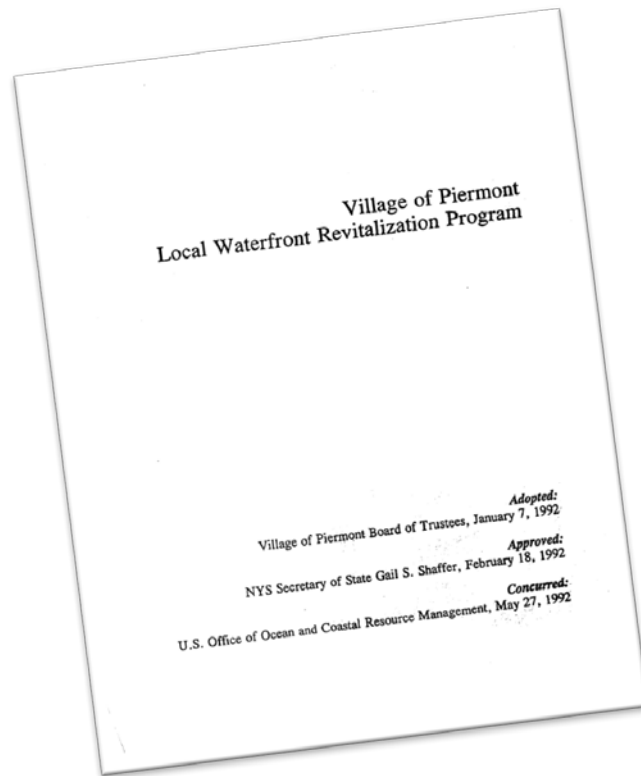
...be cognizant of overall communication and coordination...

...don't duplicate, learn from other processes.”



Department of  
Environmental  
Conservation

# First step: review existing planning documents and municipal codes



Department of  
Environmental  
Conservation

# Step two: engage key municipal decision-makers individually and as a group

- Lisa D., Village Trustee
- Ken D., Engineer/floodplain manager
- Danny G., Fire Department
- Charlie S., Building Inspector
- Steve S., Village Trustee
- Stephanie T., Village Clerk
- Tom T., Superintendent, DPW



# Step three: Summarize and present key gaps and opportunities in five areas

## Five areas of opportunities to incorporate climate resiliency:



Risk + vulnerability assessment



Public outreach + engagement



Integration of municipal plans



Disaster preparedness + recovery



Hazard mitigation



Department of  
Environmental  
Conservation

# Risk & Vulnerability Assessment (1 of 5)



- Educate Piermont municipal staff on flood risk assessments
- Train emergency managers in risk and vulnerability maps and tools
- Formalize a system to track repetitive loss



Department of  
Environmental  
Conservation

# Outreach & Collaboration (2 of 5)



- Improve public outreach on storm preparedness and flood mitigation
- Put new Advisory Base Flood Elevation maps on Piermont website
- Install high water mark signs on the Piermont waterfront



Department of  
Environmental  
Conservation

# Integration of Plans (3 of 5)



- Incorporate sea-level rise and climate resiliency in Piermont LWRP update
- Work with the county to include sea level rise and task force findings into the next Hazard Mitigation Plan update
- Capital Improvement Plan



Department of  
Environmental  
Conservation

# Disaster Preparedness (4 of 5)



- Inform Piermont residents of NY-ALERT
- Create a comprehensive emergency management plan
- Create an evacuation plan
- New or alternate shelter location outside of the floodplain



Department of  
Environmental  
Conservation

# Hazard Mitigation (5 of 5)

- Amend Piermont code to exceed the state's 2-foot freeboard req.
- Update bldg. code to support amphibious/floating homes
- Join Climate Smart Communities
- Analyze adaptation and relocation options for flood-risk infrastructure
- Continue in FEMA CRS program



Department of  
Environmental  
Conservation

# Final Product: Piermont Resilience Roadmap



- Opportunities identified during CRSP = the basis of their flooding task force report
- 24 adaptation actions for moving forward

# Climate-Adaptive Design (CAD) Studio

- Uses design to inspire & supports communities to envision future possibilities for their waterfront w/ low-cost help from students
- Partners: Cornell University Dept. of Landscape Architecture, Cornell Water Resources Inst. & DEC Hudson River Estuary Program



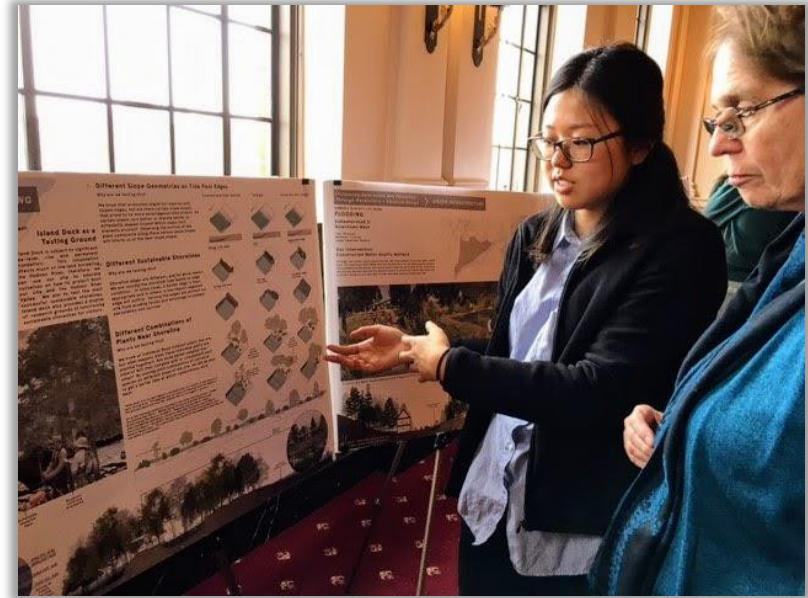
More info about the CAD Studio at <https://wri.cals.cornell.edu/udson-river-estuary/climate-change-udson-river-estuary/climate-adaptive-design>



Department of  
Environmental  
Conservation

# Climate-Adaptive Design (CAD) Studio

The semester culminates with an open house where students unveil their designs to community stakeholders.

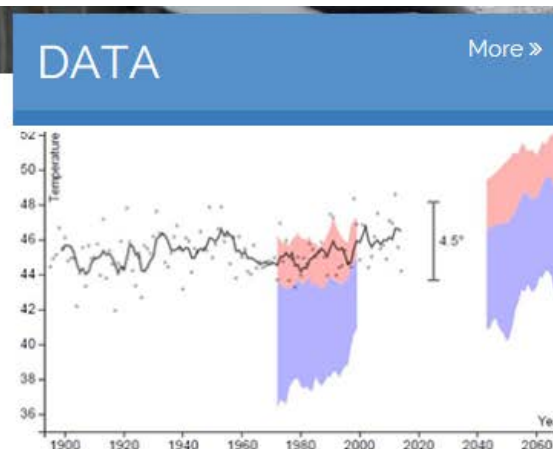


# NY Climate Change Science Clearinghouse

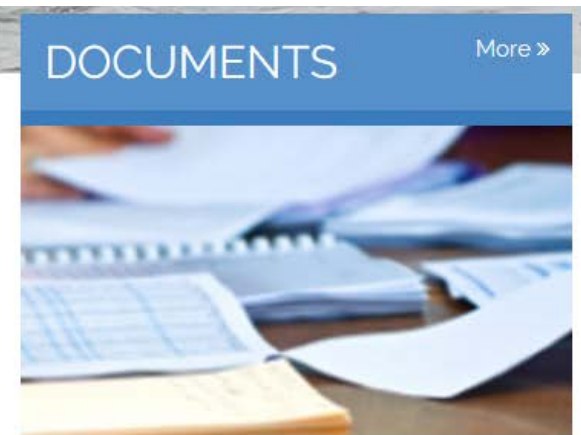
- Interactive Mapper & ability to search by region: useful in identifying locally relevant data
- <https://www.nyclimatescience.org/>



Use **maps** to identify climate change impacts and assess vulnerabilities in New York State.



Explore New York State climate information through **interactive charts** and find a broad range of datasets and data products.



Discover **reports, articles, plans**, and other climate-related resources.

# Lessons Learned

- **Strategies:**
  - Collaborate across silos
  - Focus on process & planning first
  - Use online data & mappers: visualize
  - Implement plans right away
- **Common interests / opportunities for communities:**
  - Emergency mgmt. & evacuation routes
  - Communicating about preparedness
  - Long-term plans for at-risk municipal infrastructure
  - Zoning & building codes



# Thank You!



- Dazzle Ekblad
- Office of Climate Change
- NYS Department of Environmental Conservation
- 625 Broadway  
Albany NY 12233-1030
- [climatechange@dec.ny.gov](mailto:climatechange@dec.ny.gov)
- 518-402-8448

Info on Climate Smart Communities funding programs available at <http://www.dec.ny.gov/energy/10981.html>

## Connect with DEC:

Facebook: [www.facebook.com/NYSDEC](http://www.facebook.com/NYSDEC)

Twitter: <https://twitter.com/NYSDEC>

Flickr: [www.flickr.com/photos/nysdec](http://www.flickr.com/photos/nysdec)

