WORKING WITH COMMUNITIES ON FLOOD RESILIENCE EFFORTS

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RESILIENCE

“The ability to prepare and plan for, absorb, recover from or more successfully adapt to actual or potential adverse events”
(National Academy of Sciences)

• Components
  ▫ Before, during, and after events
  ▫ Acute or gradual change
  ▫ Adaptive capacity
  ▫ Redundancy

• Equity and context
  ▫ Empowering communities and not just top down
  ▫ Not just asking communities to “pull themselves up by their bootstraps”
  ▫ Recognizing and working to correct structural inequalities

Photo Source: The Ithaca Voice
Experiences working with communities

Needs Identified

Options/Solutions
The goal of the Climate Smart Communities Program is to support New York local governments (counties, cities, towns, and villages) to:

- reduce greenhouse gas emissions and
- improve their climate resilience.

The Program is made up of two key components:

- Climate Smart Communities **Certification** Program
- Climate Smart Communities **Grant** Program
Climate Smart Communities Pledge Elements

- More than 130 actions—including 13 priority actions—for which communities can receive points with.
- Five types of actions:
  - Commit; Assess, Plan and Govern; Build Capacity; Implement; and Monitor and Report
- Under seven Pledge Elements:
  • 6. Reduce greenhouse gas emissions through use of climate-smart land-use tools.
  • 7. Enhance community resilience and prepare for the effects of climate change.
Climate Smart Communities Pledge Elements

- Action 3.9: Upgrade water or wastewater treatment facilities and infrastructure
- Action 6.17: Develop a natural resource inventory
- Action 7.3: Review existing community plans and projects to identify climate adaptation strategies and policies or projects that may decrease vulnerability
- Action 7.10: Create a community-wide watershed assessment to address flooding and water quality priorities
- Action 7.11: Adopt a floodplain management and protection ordinance to reduce vulnerability to flooding and erosion
- Action 7.12: Conserve, revegetate and reconnect floodplains and buffers in riparian areas
- Action 7.14: Facilitate a strategic relocation of uses that are not water dependent from flood prone areas
- Action 7.15: Promote community flood prevention strategies through the National Flood Insurance Program Community Rating System
- Action 7.16: Use green infrastructure to manage stormwater in developed areas
- Action 7.17: Conserve wetlands and forests to manage stormwater, recharge groundwater and mitigate flooding
- Action 7.18: Use natural, nature-based or ecologically enhanced shoreline protection
- Action 7.21: Right-size bridges and culverts, and remove unnecessary and hazardous dams
- Action 7.23: Implement a water conservation and reuse program
- Action 7.25: Implement a source water protection program
WORKING WITH COMMUNITIES

• Climate Smart Communities Technical Assistance
  ▫ Terry Carroll, Tompkins County CCE
    • Clean Energy Community Coordinator for Tompkins, Tioga and Broome Counties
  ▫ Funds are sunsetting on Clean Energy Community Coordinators 2019
• Work primarily with small, rural communities

Photo Source: Alliance for the Chesapeake Bay
Climate Smart Communities Pledge Elements

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Climate Smart Resiliency Plans, Policies, and Projects Improvement Plan for: The Town of Caroline

Overview

This document should serve as a supplement to the Climate Smart Resiliency Planning Evaluation Tool, which is a survey of existing plans, policies and projects intended to help ensure that all community plans and policies will either help reduce or, at a minimum, not increase vulnerability. The main objective of this document is to highlight deficiencies in the Town of Ulysses’ plans and local laws to
Action 6.17: Develop a natural resource inventory

Town of Ulysses Natural Resources Inventory
Compiled by Cornell Cooperative Extension of Tompkins County

2015 County-Mapped Wetlands

Slope with Wetlands
Action 7.10: Create a community-wide watershed assessment to address flooding and water quality priorities
Action 3.9: Upgrade water or wastewater treatment facilities and infrastructure

Resilient Residential Runoff: Guidance for Small Municipalities
Establishing Coupled Residential Disconnect and Green Infrastructure Programs

Scale some of the practices and lessons learned from large cities disconnect and residential green infrastructure programs to down to guidance for smaller municipalities.

- determining baselines,
- setting targets,
- determining budget,
- determining program structure and administration,
- setting timelines,
- determining target audience,
- designing outreach and engagement efforts,
- establishing a residential green infrastructure program, and
- learning from case studies will be presented.
NEEDS IDENTIFIED

- Complexity of Program
  - navigating the requirements and
  - identifying efforts that are underway
- Capacity
  - Lack of funds
    - Funding begets funding
  - Lack of staff
    - Write, administer, and enact grants
  - Technical capacity and technical assistance
  - Trainings
    - No capacity to travel
    - No capacity for webinars
• Getting Capacity to Communities
  ▫ Sharing infrastructure or staff
  ▫ Continuing to fund existing technical assistance programs
  ▫ Changing outreach model
    • Circuit riders
      • Tug Hill Commission
      • RI Watershed Coordinators
  ▫ Connecting students with communities
OPTIONS/SOLUTIONS

• Funding not through grant application model
  ▫ Funding begets funding
  ▫ Fixed apportion of funds
    • Consolidated Local Street and Highway Improvement Program (CHIPS) model

• Capacity Building
  ▫ Floodplain administrators determining the base flood elevation
  ▫ Leadership Through Effective Communication and Decision Making
    • Sarah Diefendorf, EFC West
• Tools
  ▫ Guidance or model documents
  ▫ Many incredible tools available
    • Tool cafes at existing meetings
    • Circuit riders
  ▫ Spatial data and analysis
    • Don’t need to be a trained in GIS to use spatial data
    • Share GIS services and analysis
  ▫ Local decisions made in context of other decisions
Deficit Model

- Problem of public understanding is public ignorance
- Information Delivery Problem: Public just needs more information to make the right decision
- One-way flow of information
- Assumes a passive public that explicitly trusts in science
- “Facts will speak for themselves”

Models for Public Understanding of Science (Gross 1994)
### Deficit Model
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### Contextual Model
- Considering the audience
- Many factors influence decisions, values
- Existing understanding of systems
- Interaction between science and public
- Two-way flow of information
- Active public whose trust must be gained
- Joint creation of science and local knowledge

Models for Public Understanding of Science (Gross 1994)
## FORMS OF PUBLIC INVOLVEMENT

<table>
<thead>
<tr>
<th>PUBLIC RELATIONS</th>
<th>PUBLIC EDUCATION</th>
<th>PUBLIC INPUT</th>
<th>PUBLIC INTERACTION</th>
<th>PUBLIC PARTNERSHIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Building public support</td>
<td>• Disseminating information</td>
<td>• Collecting information</td>
<td>• Two-way communication</td>
<td>• Securing advice and consent</td>
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(Cogan et al. 1986 p. 292)
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