

# Northern and Eastern Dutchess County Communities Regional

## Multi-Jurisdictional Hazard Mitigation Planning Project





Our Team:

*Partners in Protecting our Communities*



*Town of Amenia  
Town of Beekman  
Town of Dover  
Town of Milan  
Village of Millerton  
Town of North East  
Town of Pawling  
Village of Pawling  
Town of Pine Plains*

*+ support from our consultants at* **URS**



## What is hazard mitigation?

Hazard mitigation measures are actions you can undertake today to reduce your susceptibility to damages in the future.

Mitigation → Disaster Resistance



## Mitigation Measures – Some Examples



- *Elevating a house to reduce flood damages.*
- *Installing hurricane clips to a roof to reduce wind damage.*
- *Imposing setback distances to reduce erosion damages.*
- *Modifying building codes to incorporate hazard-resistant design.*



## Why Prepare a Hazard Mitigation Plan?

- It simply costs too much to address the effects of disasters only after they happen.



- One study reports that, nationwide, hazard mitigation projects save an average of \$4 for every \$1 spent.



## Mitigation Works!



*Gilchrist, Texas:*  
*Home rebuilt in 2006 to withstand a Category 5 Hurricane. Shown here after Hurricane Ike (Cat2, 110 mph winds).*





# Why Prepare a Hazard Mitigation Plan?

1

- Study natural hazards,
- Evaluate hazard effects, and
- Identify **hazard mitigation** projects that will reduce risks.





## Why Prepare a Hazard Mitigation Plan?



- Disaster Mitigation Act of 2000 requires it!
- Plan preparation is funded by a FEMA grant
- No out-of-pocket cost to local municipalities



## Why Prepare a Hazard Mitigation Plan?



- \$\$** Once the plan is approved by FEMA, participating jurisdictions will be eligible to apply for mitigation project grants.
- \$\$** Good projects will be “on the shelf” for fast turnaround when LOI’s are requested.

*Mitigation Works!*



Elevated homes in Sweet Lake, LA (near Lake Charles) after Hurricane Rita (09/24/05).



# Overview of the Plan Development Process: *Key Steps*

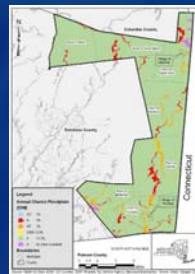
- Researching a full range of natural hazard events to determine which are the most prevalent;
- Identifying the location and extent of hazard areas;
- Identifying assets located within these hazard areas;





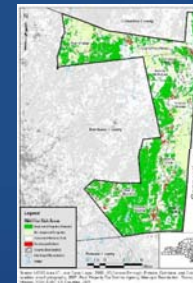
# Overview of the Plan Development Process: *Key Steps*

- Characterizing existing and potential future assets at risk;
- Assessing vulnerabilities to the most prevalent hazards; and
- Evaluating and prioritizing goals, objectives, and mitigation actions to reduce or avoid long-term vulnerabilities to the most prevalent hazards.



**Table XXX**  
Flood Data by Municipality: Improved Property Values in Identified Flood Hazard Areas  
(Source: FEMA GIS Flood Data)

Municipality	Total Improved Value (millions)	Value in High Flood Risk Areas		Value in Moderate Flood Risk Areas	
		(millions)	%	(millions)	(millions)
Armonk	\$404	\$61	15%	\$0	0%
Catskill	\$1,736	\$61	3%	\$0	0%
Croton	\$114	\$10	9%	\$0	0%
Malone	\$260	\$0	0%	\$0	0%
Northwest	\$253	\$30	12%	\$0	0%
Poughkeepsie	\$12	\$1	8%	\$0	0%
Pine Plains	\$30	\$3	10%	\$0	0%
T of Hudson	\$5	\$0	0%	\$0	0%
T of Pawling	\$20	\$14	70%	\$0	0%
Total	\$7,423	\$261	3%	\$0	0%





# Natural Hazards Being Evaluated

## Summary Results of the Hazard Identification and Evaluation Process

### ATMOSPHERIC

- Avalanche
- Extreme Temperatures
- Extreme Wind
- Hailstorm
- Hurricane and Tropical Storm
- Lightning
- Nor'easter
- Tornado
- Winter Storm

### HYDROLOGIC

- Coastal Erosion
- Dam Failure
- Drought
- Flood
- Ice Jams
- Storm Surge
- Wave Action

### GEOLOGIC

- Earthquake
- Expansive Soils
- Landslide
- Land Subsidence
- Tsunami
- Volcano

### OTHER

- Wildfire

= Hazard considered significant enough for further evaluation through the multi-jurisdictional hazard risk assessment.

**23** natural hazards evaluated  
**13** considered significant enough for further evaluation through risk assessment



## Project Progress Timeline to Draft Plan

- Kickoff Meeting: September 2008
- Plan Development: Ongoing
- Local Feedback: Ongoing
- Risk Assessment Interim Deliverable: March 2009
- Risk Assessment Q&A Session: March 2009
- Mitigation Strategy Working Session: April 2009
- Draft Plan: May 2009

# Questions and Answers

