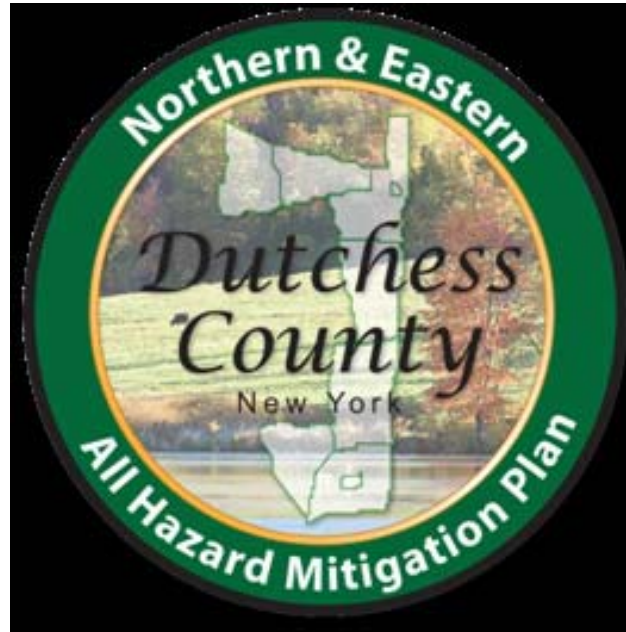


Northern and Eastern Dutchess County Communities All Hazard Mitigation Plan Implementation Committee



Public Awareness and Education Program

Prepared by Katie Palmer-House, Ed.D.
Town Clerk, Town of Dover, NY

What is the Northern and Eastern Dutchess Communities AHMP?



2012 AHMP Implementation Committee Members:

Supervisor Thomas Flood, Town of Amenia
Councilwoman Barbara Zulauf, Town of Beekman
Supervisor Ryan Courtien, Town of Dover
Highway Superintendent Glenn Butler, Town of Milan

Village Clerk Amber Jordan, Village of Millerton

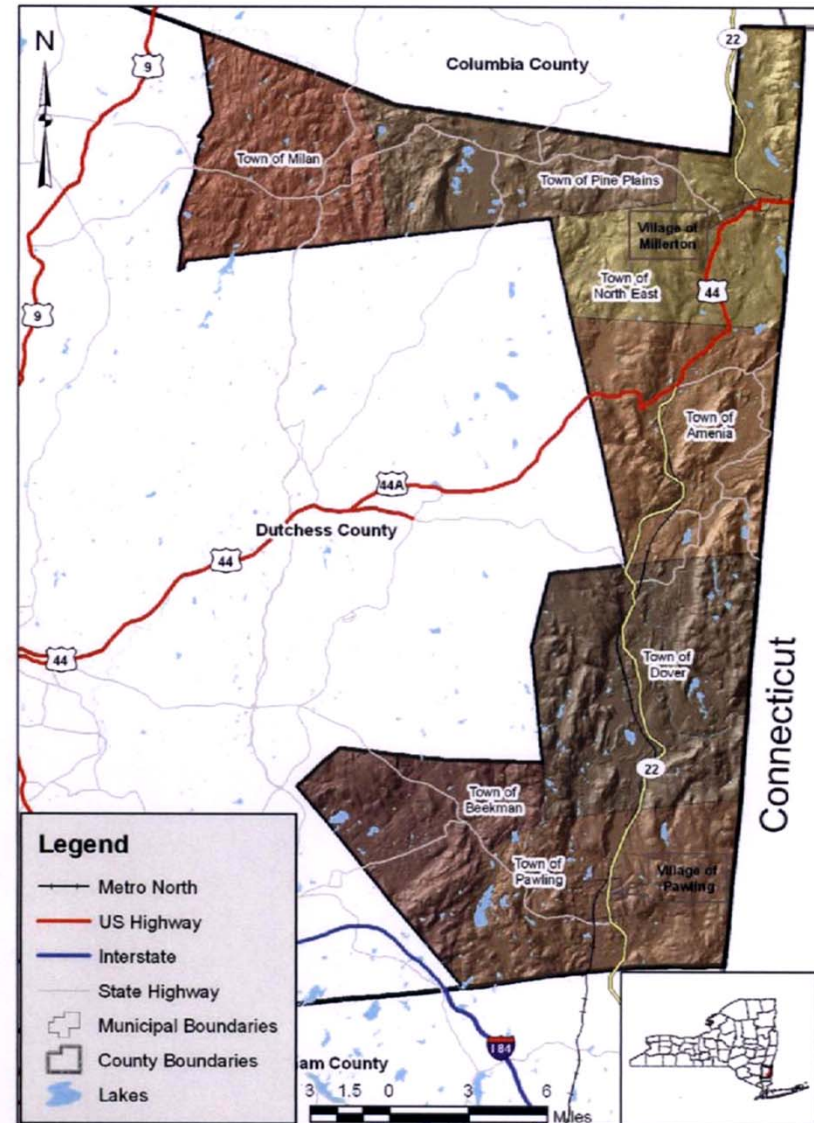
Supervisor John Merwin, Town of North East
Supervisor David Kelly, Town of Pawling
Highway Superintendent Wayne Osborne, Village of Pawling
Supervisor Brian Coons, Town of Pine Plains

A nine-community collaboration to develop and implement strategies that reduce or eliminate personal and property damage from about natural hazard conditions and events.

Communities of the Northern and Eastern Dutchess All Hazards Mitigation Plan

- 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

Figure 1.2 – Base Map of the Northern and Eastern Dutchess County Communities



Source: US Census Borough, Putnam, Dutchess, and Columbia counties area hydrography, 2007; Real Property Tax Service Agency, Municipal Boundaries - Towns, Cities, Villages, 2008; ESRI, US Counties, 2005; ESRI, NY Major Roads, 2007; USGS DEMs, NY State; US Census Borough, Railroads, NY State, 2001

Summary of Profiled Hazards in Our Communities

SECTION 3a- RISK ASSESSMENT: HAZARD PROFILES

Overview

Detailed profiles of hazards identified in the previous section as worthy of further evaluation in the overall risk assessment are provided in this section. Each hazard profile includes a description of the hazard and its causes and impacts, the location and extent of areas subject to the hazard, known historical occurrences, and the probability of future occurrences. The profiles also include specific information noted by members of the planning committee and other stakeholders, including unique observations or relevant anecdotal information regarding individual historical hazard occurrences and individual jurisdictions.

The following table summarizes each hazard, and whether or not it has been identified as a hazard worthy of further evaluation for each of the nine participating jurisdictions. Following Table 3a.1, Figure 3a.1 presents a base map of the planning area for reference, including the most significant transport links and the location and boundaries of each participating jurisdiction.

Table 3a.1 Summary of Profiled Hazards by Jurisdiction													
Jurisdiction	Extreme Temperatures	Extreme Wind	Hurricane / Tropical Storm	Lightning	Nor'easter	Tornado	Winter Storm	Dam Failure*	Drought	Flood	Ice Jams	Earthquake	Wildfire
Amenia, Town of	■	■	■	■	■	■	■	■	■	■	■	■	■
Beekman, Town of	■	■	■	■	■	■	■	■	■	■	■	■	■
Dover, Town of	■	■	■	■	■	■	■		■	■	■	■	■
Milan, Town of	■	■	■	■	■	■	■		■	■	■	■	■
Millerton, Village of	■	■	■	■	■	■	■		■	■	■	■	■
North East, Town of	■	■	■	■	■	■	■		■	■	■	■	■
Pawling, Town of	■	■	■	■	■	■	■	■	■	■	■	■	■
Pawling, Village of	■	■	■	■	■	■	■		■	■	■	■	■
Pine Plains, Town of	■	■	■	■	■	■	■		■	■	■	■	■

*Dam Failure Exposure: based on available inundation mapping for "High Hazard" dams only (see later Dam Failure Hazard Profile Section).

Steps to Help Reduce Risk from Natural Hazards

Step 1: Get Ready !



FEMA

- ***Visit FEMA's "Are You Ready?" website and review the***
- ***"Make a Plan" and "Build a Kit" links***
- ***<http://www.ready.gov/make-a-plan>***
- ***<http://www.ready.gov/build-a-kit>***
- ***Prepare a family Emergency Kit and "Go-bag" for every family member (including your pet).***

FEMA recommends preparing a:

Basic Emergency Kit:

- **Water** one gallon per person per day
- **Food** “ready to eat” or requiring minimal water
- Manual can opener and other cooking supplies
- Plates, utensils and other feeding supplies
- **First Aid kit** & instructions
- A copy of important documents & phone numbers
- Warm clothes and rain gear for each family member.
- Heavy work gloves
- Disposable camera
- Personal hygiene items including toilet paper, feminine supplies, hand sanitizer and soap
- Plastic sheeting, duct tape and utility knife for covering broken windows
- Tools such as a crowbar, hammer & nails, staple gun, adjustable wrench and bungee cords.
- Blanket or sleeping bag
- Large heavy duty plastic bags and a plastic bucket for waste and sanitation
- Any special-needs items for **children, seniors or people with disabilities**. Don’t forget water and supplies for your **pets**.

FEMA also recommends a Disaster Kit or “Go Bag:”

A “Go-bag.”

Prepare a “Go-bag” for each family member and make sure each has an I.D. tag with these items:

- Flashlight
- Radio (battery operated)
- Batteries
- Whistle
- Dust mask
- Pocket knife
- Emergency cash in small denominations and quarters for phone calls
- Sturdy shoes, a change of clothes, and a warm hat
- Local map
- Some water and food
- Permanent marker, paper and tape
- Photos of family members and pets for re-identification purposes
- List of emergency point-of - contact phone numbers
- List of allergies to any drug (especially antibiotics) or food
- Copy of health insurance and identification cards
- Extra prescription eye glasses, hearing aid or other vital personal items
- Prescription medications and first aid supplies
- Toothbrush and toothpaste
- Extra keys to your house and vehicle
- Any special-needs items for children, seniors or people with disabilities.
- *Don't forget to make a Go-bag for your pets.*

Step 2: “Get in Gear”

- *Learn about Identified Natural Hazards in Our Area*
- [Dam Failure](#)
- [Drought](#)
- [Earthquake Hazard](#)
- [Extreme Temperatures \(Cold/Heat\)](#)
- [Extreme Wind](#)
- [Flood](#)
- [Hurricane and Tropical Storm](#)
- [Ice Jams](#)
- [Lightning](#)
- [Tornadoes](#)
- [Winter Storm and Nor'easters](#)
- [Wildfire](#)

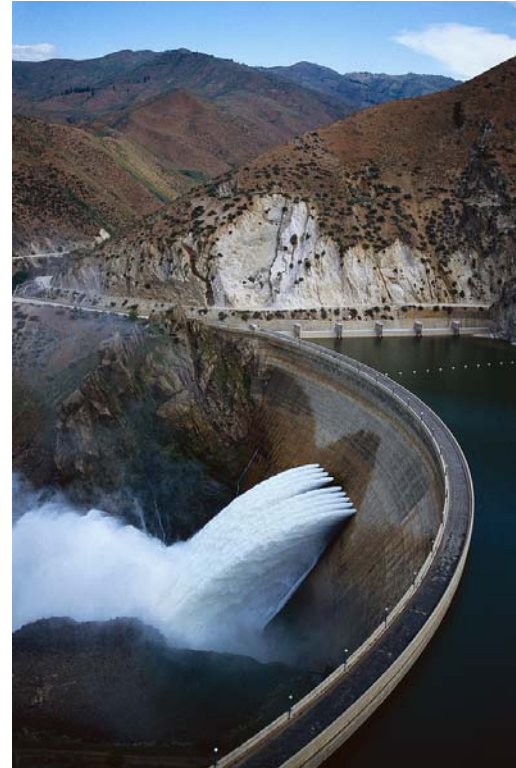


Dam Failure

There are 56 dams in Northern and Eastern Dutchess Communities AHMP area.

The probability of a dam failure occurrence in the planning area is relatively low due to the routine inspection and maintenance programs carried out by the NYS DEC.

However, the possibility of a future failure is likely increasing due to the aging dam structures that may be in need of repair or reconstruction.



To learn more about ways to protect you and your family in the event of dam failure, visit the following FEMA information webpage:

http://www.fema.gov/hazard/damfailure/df_before.shtm

*Information from the Northern and Eastern Dutchess County
Communities Regional All Hazards Mitigation Plan (2010)*

Drought Hazard

According to the United States Geological Survey (USGS), communities in our hazard mitigation planning area fall within what is described as a “humid” region and are more likely to experience a short-term (versus long-term) drought.

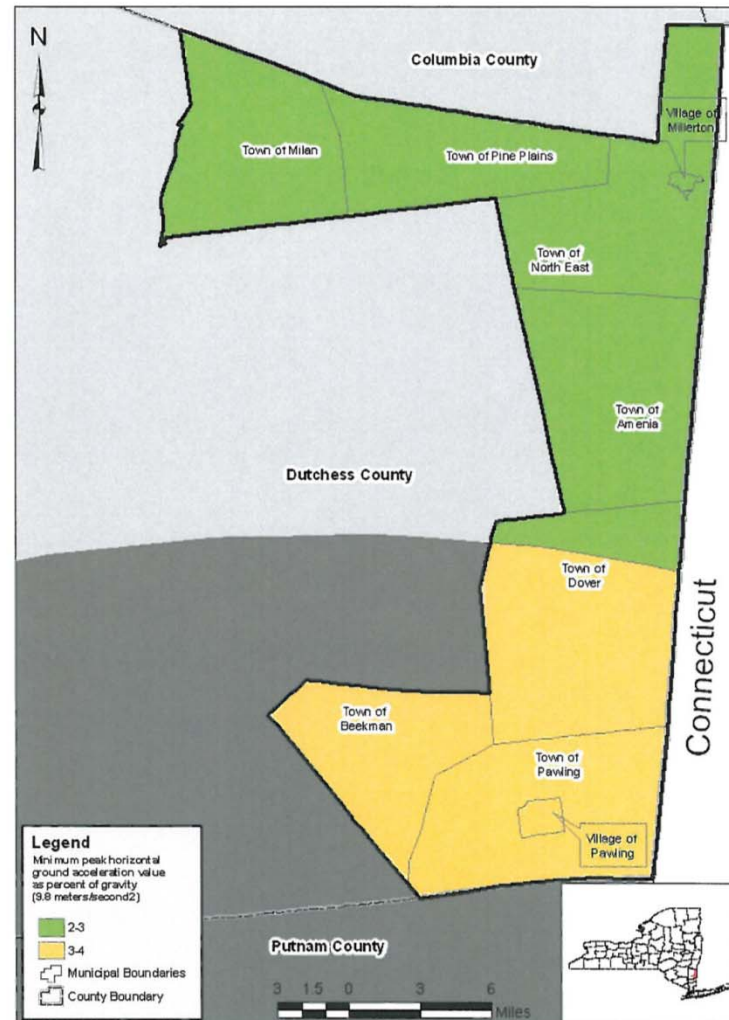


*Information from the Northern and Eastern Dutchess County Communities
Regional All Hazards Mitigation Plan (2010)*

Earthquake Hazard

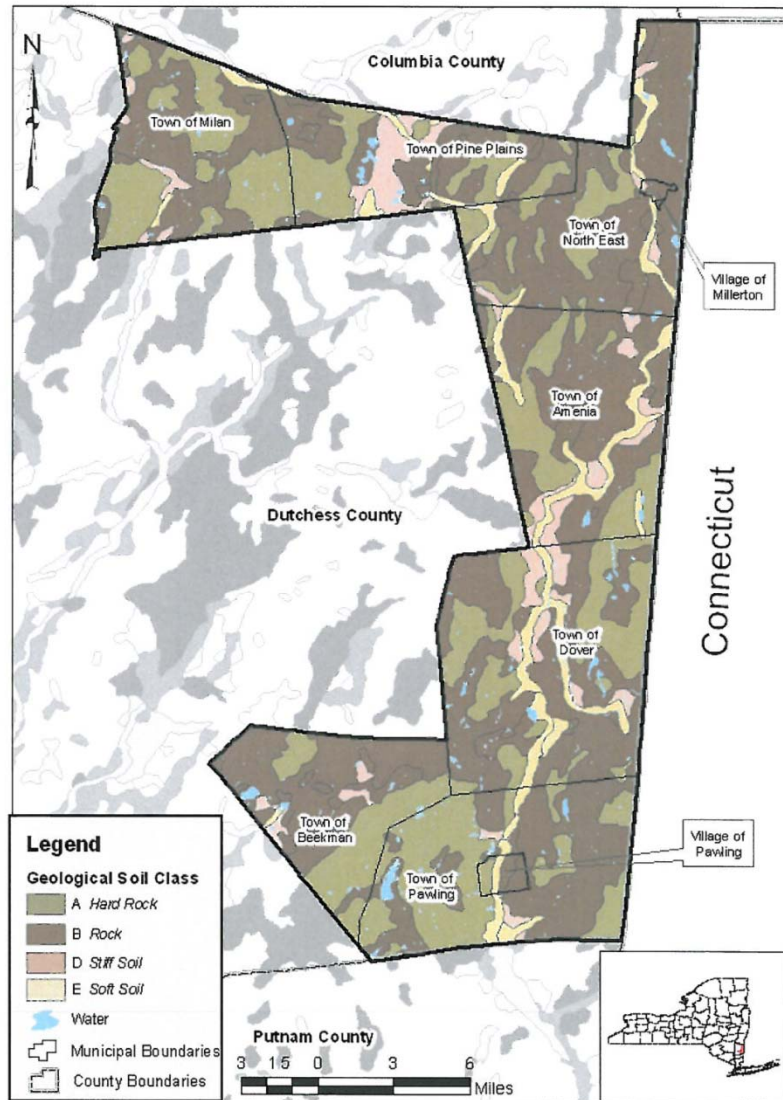
Figure 3a.20: Northern and Eastern Dutchess County Earthquake Hazard Zones

- All of Dutchess County has some degree of exposure to earthquake.
- An earthquake, if it did occur, would likely have associated with it light to moderate perceived shaking and little to no damage.



Source: U.S.G.S. National Seismic Hazard Maps, 2008; Property Tax Service Agency, Municipal Boundaries: Towns, Cities, Villages, 2008; ESRI, US Counties, 2005

Figure 3a.21: Northern and Eastern Dutchess County Geological Soil Classification



Source: NYS Geological Survey, NEHRP Soil Class Data; ESRI, US Counties, 2005, Property Tax Service Agency, Municipal Boundaries - Towns, Cities, Villages, 2008; Dutchess County area hydrography, 2007

Earthquake and Soil

The highest prevalence of soil types most likely to amplify effects of seismic activity are the town of Amenia and Dover and the Village of Amenia.

The Town of Milan appears to be at least risk from earthquake damage, since it has the highest proportion of both land and improved property in the lowest risk band.

Information from the Northern and Eastern Dutchess County Communities Regional All Hazards Mitigation Plan (2010)



Extreme Temperatures



- **Extreme cold events in New York State occur regularly and are most common between October and March.**
- **Extreme heat events also occur regularly and are most common between May and mid-September.**
- **Threat to human lives and safety is increasing due to the relatively high percentages of elderly populations in many of the planning area's municipal jurisdictions.**

Extreme Wind

85 high wind events have occurred in Dutchess County between 1950 and October 2008.

Extreme winds events will remain a very frequent occurrence in Dutchess County.

SECTION 3a - RISK ASSESSMENT: HAZARD PROFILES

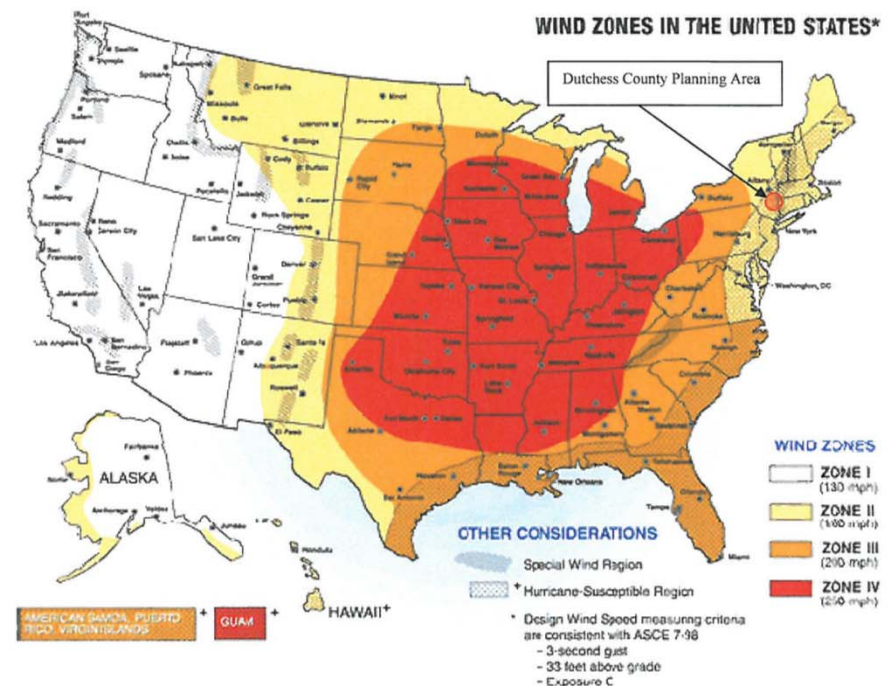
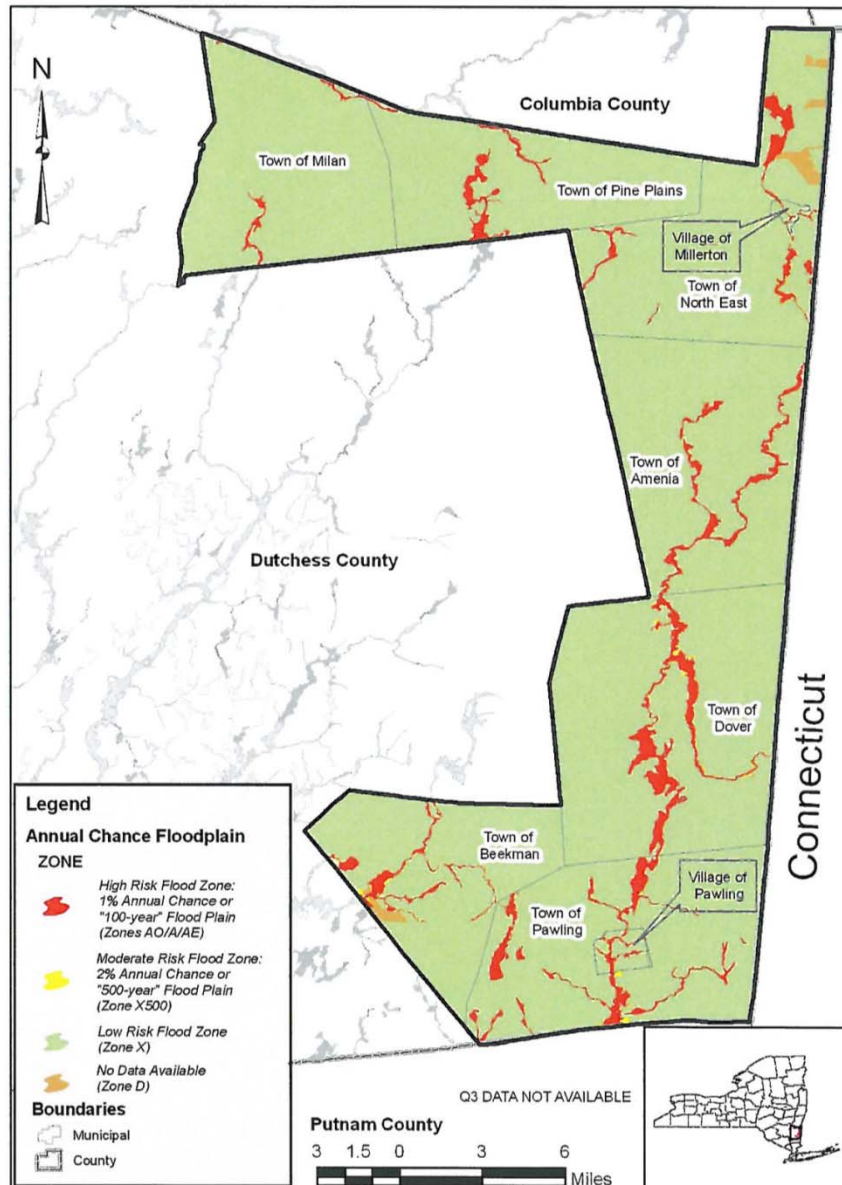


Figure 3a.2 - Wind Zones in the United States

Extent – Extreme Winds

The severity of a severe wind event depends upon the maximum sustained winds experienced in any given area. Extreme winds pose a significant threat to lives, property and infrastructure due to direct wind forces but also flying debris, such as rocks, lumber, fuel drums, sheet metal and loose gear of any type that can be picked up by the wind and hurled with great force. Extreme winds also down trees and power lines that often result in power outages across an affected area. Table 3a.2 illustrates the severity and typical effects of various wind speeds, as obtained from the NOAA NCDC web site.

Figure 3a.14: Northern and Eastern Dutchess County Flood Hazard Areas



Source: FEMA Q3 Data; ESRI, US Counties, 2005; Property Tax Service Agency, Municipal Boundaries - Towns, Cities, Villages, 2008;

Flooding

- The Towns of Amenia and Dover, along with the Village of Pawling, have the greatest proportions of improvement property values in high flood risk zones.
- The Town of Dover has the highest total dollar value of improved property within the high flood risk zone.

Information from the Northern and Eastern Dutchess County Communities Regional All Hazards Mitigation Plan (2010)

Hurricanes

Based upon a review of this data, it was determined that the Dutchess County Planning Area and jurisdictions have roughly a six to 12 percent chance of being impacted by a named coastal storm in a given year.

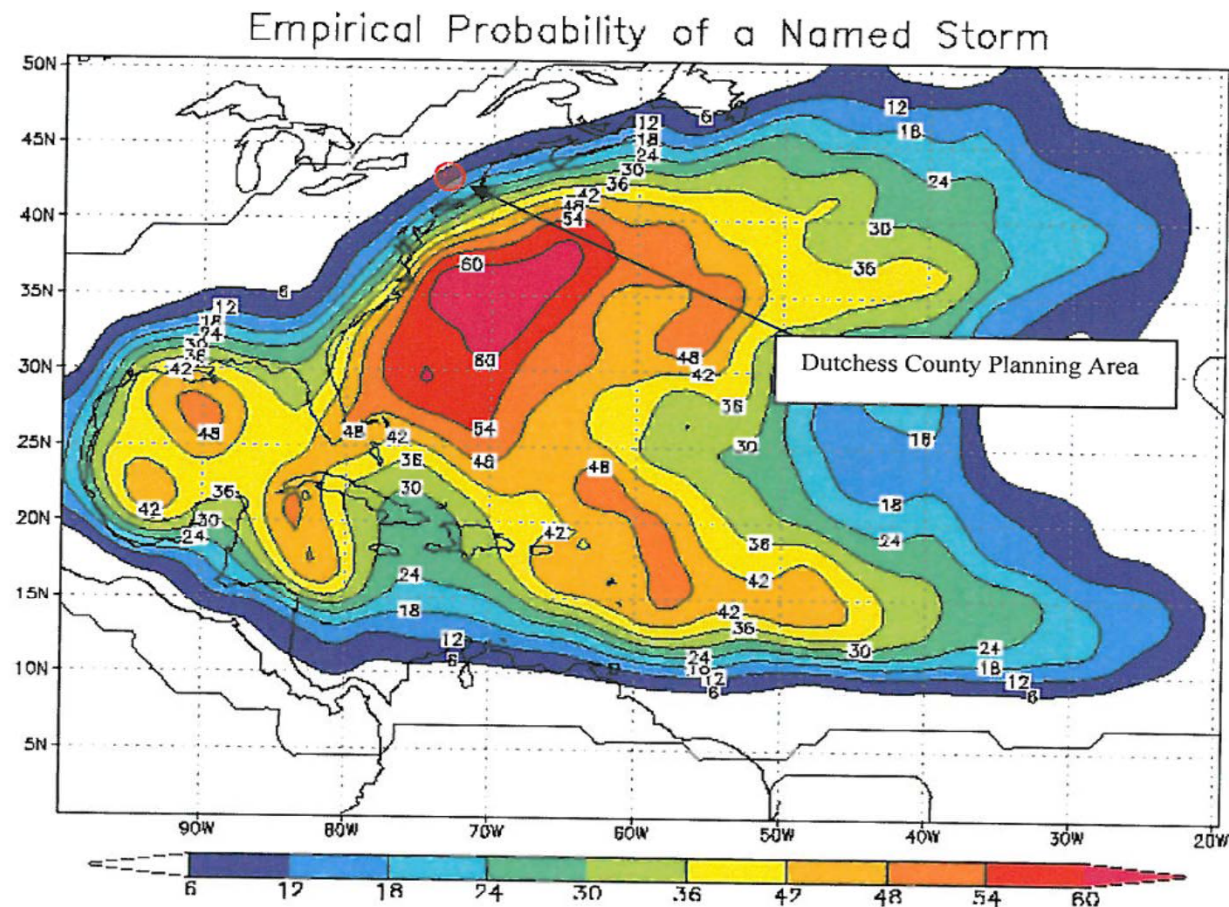


Figure 3a.3 - Empirical Probability of a Named Storm (Atlantic Basin)



Nor'easter Hazard

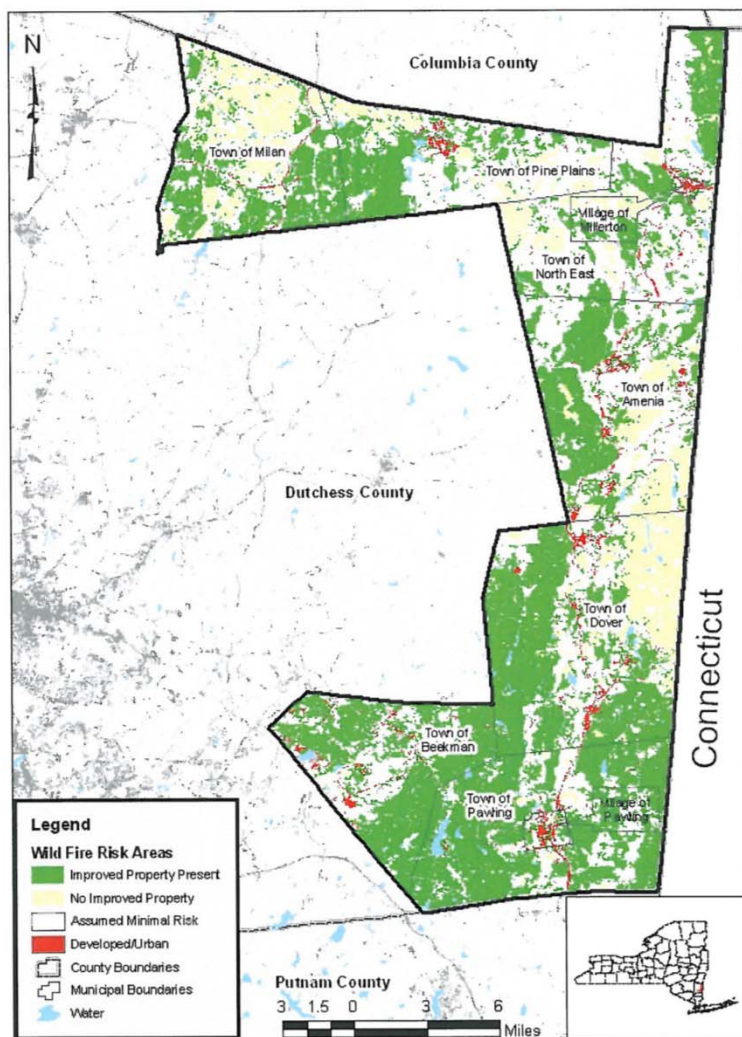
- **Dutchess County is located in an area that is extremely susceptible to nor'easters.**
- **No one jurisdiction within the planning area is any more likely to have the path of such a system traverse within its border than any other location.**



*Information from the Northern and Eastern Dutchess County
Communities Regional All Hazards Mitigation Plan (2010)*

Wildfire Hazard

Figure 3a.24: Wildfire Hazard Areas in Northern and Eastern Dutchess County



Source: USGS Area 13 Land Cover Layer, 2003; US Census Borough, Putnam, Dutchess, and Columbia counties area hydrography, 2007; Real Property Tax Service Agency, Municipal Boundaries - Towns, Cities, Villages, 2008; ESRI, US Counties, 2005

- The Towns of Dover, Milan and Pawling have the highest proportions of their land area inside wildfire hazard zones (more than 70% in each case)
- the Town of Beekman has the longest urban-wildland interface by some distance.
- The Town of Milan has the highest proportion of improvement value within wildfire hazard zones, while the Town of Pawling has the highest actual dollar value of improvement in such zones.

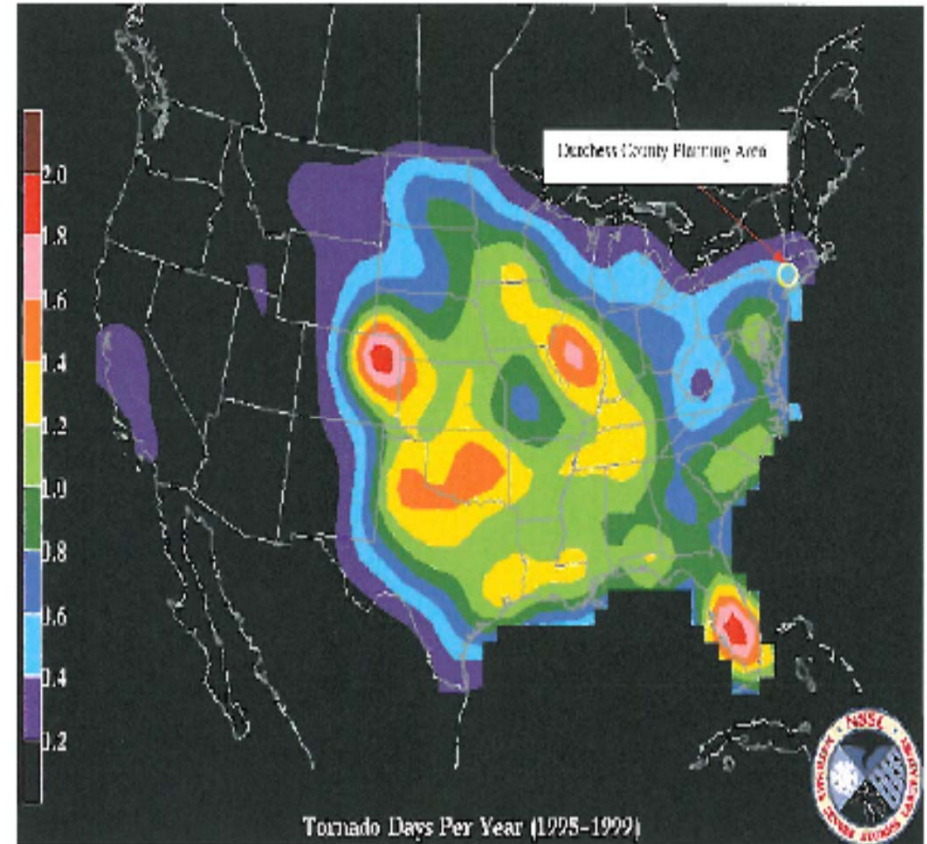
Other Hazards in our Planning Area

Lightning: our planning area is less susceptible than other states

Ice Jams: History of jams in Wassaic Creek (Amenia) and Roe Jan Creek (Milan)

Tornadoes: 11 between 1978 and 2007

Figure 3a.5: Tornado Occurrence Probability



Step 3: “Get Involved” in *Building Your Community’s Capacity to Anticipate and Mitigate Damage from Natural Hazards*



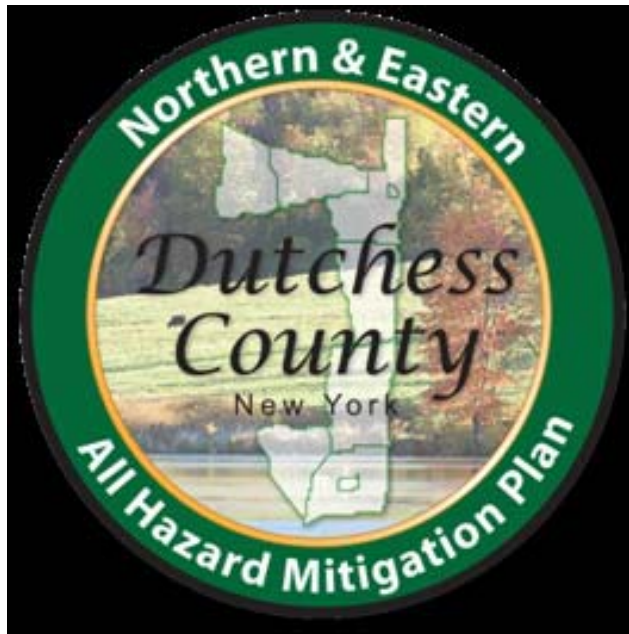
- 1) *Observe and Follow Building Codes and Zoning Ordinances***
- 2) *Assist with the Development and Updates of Your Town’s or Village’s Master Plan***
- 3) *Volunteer to Review and Strengthen Your Community’s Emergency Response Plan***

Review the complete
Northern and Eastern
Dutchess Communities
All Hazards
Mitigation Plan at:



<http://townofdoverny.us/uploads/AHMPFinal092210.pdf>

Thank you for your time!



We welcome your
comments on the
All Hazards
Mitigation Plan.

Please send them to:
Katie Palmer-House,
at townclerk@townofdoverny.us