

IDENTIFICATION OF HAZARDS OF CONCERN

To provide a strong foundation for mitigation strategies considered in Section 6, the Village considered a full range of hazards that could impact the area and then identified and ranked those hazards that presented the greatest concern. The hazard of concern identification process incorporated input from local decision-makers; hazard screening using an automated hazard scoring model (HAZNY); additional research and local, state, and federal information on the frequency, magnitude, and costs associated with the various hazards that have previously, or could feasibly, impact the region; and qualitative or anecdotal data regarding natural, human-caused, and technological hazards and the perceived vulnerability of the study area's assets. Table 5-1 documents hazard identification process.

Hazards of Concern are those hazards that are considered most likely to impact a community. These are identified using available data and local knowledge.

Table 5-1. Identification of Hazards of Concern for the Village of Briarcliff Manor

Hazard of Concern	Step 1	Step 2	Step 3	
	Is this a hazard that may occur in the Village of Briarcliff Manor?	If yes, does this hazard pose a significant threat to the Village?	Why was this determination made?	Sources of Information
Natural				
Avalanche	No	-	<ul style="list-style-type: none"> The topography of the Village does not support the occurrence of an avalanche event. NYS in general has a very low occurrence of avalanche events based on statistics provided by National Avalanche Center – American Avalanche Association (NAC-AAA) between 1950 and 2006. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC NAC-AAA database (1950-2006)
Coastal Erosion	Yes	No	<ul style="list-style-type: none"> The southwest-portion of the Village is located along the tidally-influenced Hudson River and experiences increased storm surge elevations as a result of cyclonic activity. Please see Flooding. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC
Coastal Storm	Yes	Yes	Please see Severe Storm	
Dam Failure	No	No	<ul style="list-style-type: none"> Although dam failure is identified as a hazard affecting NYS, according to NPDP and USACE NID, there are no dams or levees located in the Village. The PC does not consider dam failure as a significant hazard affecting the Village. 	<ul style="list-style-type: none"> USACE NID NPDP Dam Incident Database Village HAZNY NYS Plan Input from PC
Drought	Yes	Yes	<ul style="list-style-type: none"> Recent drought events in WC: <ul style="list-style-type: none"> November 2001-October 2002 June 2005-October 2005 Drought was identified as a hazard affecting the Village by the HAZNY team. Drought was identified as a hazard in the NYS Plan. 	<ul style="list-style-type: none"> NYSEMO CEMP Village HAZNY NYS Plan Input from PC
Earthquake	Yes	Yes	<ul style="list-style-type: none"> According to the NGDC, NYS has had 	<ul style="list-style-type: none"> USGS –

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			<p>9 earthquakes between 1800 and 2006, including one in 1884 that damaged chimneys in Mount Vernon.</p> <ul style="list-style-type: none"> According to the USGS online seismic hazard maps, the peak ground acceleration with a 10% probability of exceedance over 50 years for WC is 5-6g. FEMA guidance recommends earthquakes be evaluated further if a study area has a 3g peak acceleration or more. 	<p>Earthquake Hazards Program, Review of USGS Seismic Maps</p> <ul style="list-style-type: none"> NOAA NGDC Earthquake Database from 1800 - Present Village HAZNY NYS Plan Input from PC
Expansive Soils	No	No	<ul style="list-style-type: none"> USGS indicates WC soil consists of clay, with a slight to moderate swelling potential. Expansive soils were not identified as a hazard affecting the Village by the HAZNY team. Expansive soils are not identified as a hazard in the NYS Plan. 	<ul style="list-style-type: none"> USGS 1989 Swelling Clays Map of the Conterminous U.S. Village HAZNY NYS Plan Input from PC
Extreme Temperature	Yes	No	<ul style="list-style-type: none"> Extreme temperature was not identified as a hazard by the Village HAZNY team. Extreme temperature was not identified as a hazard in the NYS Plan. This hazard can be investigated in future updates of the Plan. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC
Flood	Yes	Yes	<ul style="list-style-type: none"> Recent Presidential Disaster Declarations in WC: <ul style="list-style-type: none"> November 1996 (DR 1146) April 2005 (DR 1589) According to NOAA's NCDC database, WC experienced 49 flood events from 1950 to 2006 (including flash floods, urban floods, and small stream floods). Flood was identified as a moderately low hazard affecting the Village by the HAZNY team. Flood was identified as a hazard in the NYS Plan. The PC determined this hazard poses a threat warranting further analysis. 	<ul style="list-style-type: none"> NOAA – NCDC NYSEOM Village HAZNY NYS Plan Input from PC
Hailstorm	Yes	Yes	Please see Severe Storm	
Hurricane	Yes	Yes	Please see Severe Storm	
Ice Jams	No	No	<ul style="list-style-type: none"> According to the USACE CRREL Ice Jam Database, there are no known historical occurrences of ice jams in 	<ul style="list-style-type: none"> USACE CRREL Ice Jam Database

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			<p>the Village.</p> <ul style="list-style-type: none"> Ice jams are not identified as a hazard in the NYS Plan. 	<ul style="list-style-type: none"> NYS Plan
Land Subsidence	No	No	<ul style="list-style-type: none"> The NYS Plan indicates NY is vulnerable to land subsidence; however, this hazard is “extremely localized” and poses a “very low risk to population and property.” The NYS Plan does not identify the Village as a community that has experienced land subsidence in the past. The PC does not consider land subsidence as a significant hazard affecting the Village. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC
Landslide	No	No	<ul style="list-style-type: none"> The NYS Plan identifies landslide as a hazard of concern; however, according to Figure 3-36, the Village is located in a low landslide incidence area. The PC does not consider landslide as a significant hazard affecting the Village. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC
Severe Storm (including thunderstorm, wind, hail, lightning, tornado and hurricane)	Yes	Yes	<ul style="list-style-type: none"> The NOAA NCDC Storm Events Database indicates that WC was impacted by approximately 159 severe storm events from 1950 to 2006. Village HAZNY results indicate severe storms are a frequent event. The NYS Plan indicates hurricanes and tornadoes are significant hazards that impact the State. The PC determined this hazard poses a threat warranting further analysis. 	<ul style="list-style-type: none"> NOAA – NCDC Village HAZNY NYS Plan Input from PC
Severe Winter Storm (blizzards, snowstorms)	Yes	Yes	<ul style="list-style-type: none"> From 1993 to 2006, WC has experienced six severe winter storm events. Village HAZNY results indicate winter storms (severe) are a moderately low hazard. NYS Plan indicates winter storms (severe) are significant hazards that impact NYS. The PC determined this hazard poses a threat warranting further analysis. 	<ul style="list-style-type: none"> NYSEMO NWS NY Journal News Village HAZNY NYS Plan Input from PC
Tornado	Yes	Yes	Please see Severe Storm	
Tsunami	No	No	<ul style="list-style-type: none"> Tsunami is not identified as a hazard of concern in the NYS Plan. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC
Volcano	No	No	<ul style="list-style-type: none"> There are no volcanoes located in NYS. 	<ul style="list-style-type: none"> Village HAZNY NYS Plan Input from PC

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	Is this a hazard that may occur in the Village of Briarcliff Manor?	If yes, does this hazard pose a significant threat to the Village?	Why was this determination made?	Sources of Information
Wildfire	Yes	Yes	<ul style="list-style-type: none"> ▪ Although no past wildfire events have been identified in the NCDC database (1950 to 2005), this hazard is of concern to the PC. ▪ Wildfire was identified by the HAZNY team as a moderately low hazard. ▪ The NYS Plan indicates the State is vulnerable to wildfires. ▪ The PC determined this hazard poses a threat warranting further analysis. 	<ul style="list-style-type: none"> ▪ Village HAZNY ▪ NYS Plan ▪ Input from PC
Windstorm	Yes	Yes	Please see Severe Storm	
Man-Made				
Vehicular Accident (including hazardous materials in transit)	Yes	Yes	<ul style="list-style-type: none"> ▪ According to NYSDOT, from 2002 to 2005, there were 227 traffic accidents on Routes 9, 9A and 100 in the Village. ▪ According to NYSDEC Spill Incident Database, from 1978 to 2006, there were eight hazardous material spills along roadways in the Village. ▪ Vehicular accident was identified by the HAZNY team as a low hazard. ▪ The PC determined this hazard poses a threat warranting further analysis. 	<ul style="list-style-type: none"> ▪ NYSDOT Accident Database ▪ NYSDEC Spill Incident Database ▪ Village HAZNY ▪ NYS Plan ▪ Input from PC

Notes: The WC Hazard Mitigation Plan was requested from WCOEM. However, at the time of publication of this draft Plan, this document has not been adopted by the County and is not a public document for review.

CEMP	=	Comprehensive Emergency Management Plan
CRREL	=	Cold Regions Research and Engineering Laboratory
DR	=	Presidential Disaster Declaration Number
HAZNY	=	Hazards New York
NCDC	=	National Climatic Data Center
NID	=	National Inventory of Dams
NGDC	=	National Geophysical Data Center
NPDP	=	National Performance of Dams Program
NOAA	=	National Oceanic and Atmospheric Administration
NYS	=	New York State
NYSEMO	=	New York State Emergency Management Office
PC	=	Planning Committee
Plan	=	Hazard Mitigation Plan
USACE	=	U.S. Army Corp of Engineers
USGS	=	United States Geologic Survey
Village	=	Village of Briarcliff Manor
WC	=	Westchester County

For the purposes of this planning effort, the Planning Committee chose to group some hazards together, based on the similarity of hazard events, their typical concurrence or their impacts, consideration of how hazards have been grouped in FEMA guidance documents (FEMA 386-1, “Understanding Your Risks, Identifying Hazards and Estimating Losses; FEMA’s “Multi-Hazard Identification and Risk Assessment – The Cornerstone of the National Mitigation Strategy”), and consideration of hazard grouping in the NYS Plan.

The flooding hazard includes both flash and riverine flooding. Both types of flooding are known to cause significant losses and usually occur simultaneously as a result of a single severe weather event. Severe storms usually entail a variety of other influencing weather conditions, including tornados, hurricanes, wind storms, thunderstorms, or lightning storms, therefore, all such conditions have been categorized as being a severe storm hazard. Similarly, snow, hail, and freezing rain hazards were considered as part of the severe winter storm hazard. In addition, the HAZNY man-made hazards Hazmat (In Transit) and Transportation Accident Hazards were grouped together into one hazard: Vehicular Accident (including Hazmat in transit). These groupings are not believed to significantly change the definition of these hazards as defined within HAZNY and/or FEMA guidance documents, and consequently for the hazard analysis conducted through the use of HAZUS-MH, either directly or as a risk assessment support tool.

In summary, the following six (6) natural hazards and one (1) man-made hazard of concern were identified as significant hazards to be addressed in this Plan:

1. Drought
2. Earthquake
3. Flooding
4. Severe Storms (windstorms, hurricane, tropical storms, thunderstorms, hail, lightning and tornado)
5. Severe Winter Storm (snow, blizzard)
6. Wildfire
7. Vehicular Accidents (including hazardous materials in transit)

This mitigation planning effort has, at least initially, limited consideration to natural hazards and the Vehicular Accident (including hazardous materials in transit) hazard. A natural hazard that has occurred in WC, but has a lower potential to occur or significantly impact the Village, is extreme temperatures. The Village may attempt to expand the scope of this HMP to include this and other less frequent natural hazards and/or technological and man-made hazards as resources permit or in future updates to this Plan.