



## 9.10 TOWN OF HYDE PARK

This section presents the jurisdictional annex for the Town of Hyde Park.

### 9.10.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan’s primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Aileen Rohr, Town Supervisor 845-229-5111 x 100 <a href="mailto:arohr@hydeparkny.us">arohr@hydeparkny.us</a>	Emily Svenson, Deputy Supervisor 845-229-5111 x 104 <a href="mailto:esvenson@hydeparkny.us">esvenson@hydeparkny.us</a>

### 9.10.2 Municipal Profile

The Town of Hyde Park is located in the western region of Dutchess County; it is bordered by the Towns of Clinton and Pleasant Valley to the east, the Town of Poughkeepsie to the south, the Hudson River to the west, and the Town of Rhinebeck to the north. Major waterways include Maritje Kill and Fall Kill, which flow north to south from through the southern region of the Town, Crum Elbow Creek, which flows north to south through the center of the Town and the Hudson River, which forms the western border for the Town. According to the U.S. Census, the 2010 population for the Township was 21,571, and the total area is 39.8 square miles, 37.0 square miles of land and 2.9 square miles of water. The Town has several unincorporated communities, East Park, Haviland, Hyde Park, Mills State Park, Norrie State Park, and Staatsburg.

### Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in Section 9.8.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.10-1. Growth and Development**

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
<b>Recent Development from 2010 to present</b>					
River Ridge	Residential	162 Townhomes STP & Clubhouse	Rolling Ridge Rd. & Hudson View Terrace	Wind	50% comp. in Progress
Stop & Shop	Commercial	Rebuild Anchor Tenant Space & Renovate Mall Facade	3999 Albany Post Rd.	None	Complete
CIA-Marriott Pavilion	Education	Auditorium, meeting rooms approx. 42,000 Sq. Ft.	Campus Drive	None	Complete
CIA – Student Housing II	Education	Approx. 62 Townhomes	Tarragon Court	Wind	Complete
CIA – Student Recreation Center Expansion	Education	Expansion of indoor recreation facilities, meeting rms, offices, brewery, restaurant	Campus Drive	Wind	Complete
Dutchess County SPCA Expansion	Commercial	New Adoption Facility	636 Violet Ave.	None	Complete
<b>Known or Anticipated Development in the Next Five (5) Years</b>					



Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
None identified by the Town.					

\* Only location-specific hazard zones or vulnerabilities identified.

### 9.10.3 Natural Hazard Event History Specific to the Municipality

Dutchess County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

**Table 9.10-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
July 2, 2013	Heavy Rain	N/A	N/A	Yes-tree damage and erosion

### 9.10.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of Hyde Park. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

#### Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Town of Hyde Park.

**Table 9.10-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Coastal Storm	100-year MRP: \$2,766,139.00 500-year MRP: 15742735 Annualized: \$182,746.00	Frequent	48	High
Drought	Damage estimate not available	Frequent	42	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$776,370 2,500-Year GBS: \$10,232,882	Occasional	32	High
Extreme Temperature	Damage estimate not available	Frequent	30	Medium
Flood	1% Annual Chance: \$141,189,372	Frequent	36	High
Severe Storm	100-Year MRP: \$2,766,139 500-year MRP: \$15,742,735	Frequent	48	High





Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
	Annualized: \$182,746			
Winter Storm	1% GBS: \$37,812,272 5% GBS: \$189,061,358	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$5,485,472,470	Frequent	42	High

Notes:

GBS = General building stock; MRP = Mean return period.

- a. The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.
- b. High = Total hazard priority risk ranking score of 31 and above  
Medium = Total hazard priority risk ranking of 20-30+  
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the estimated value of contents. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages. Loss estimates for the flood and earthquake hazards represent both structure and contents. Potential flood loss estimates were generated using Hazus-MH 2.2 and the 2011 FEMA DFIRM for the 1-percent annual chance event. For the wildfire hazard, the improved value and estimated contents of buildings located within the identified hazard zones is provided.

### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Hyde Park.

Table 9.10-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Town of Hyde Park	137	24	\$379,548.76	3	0	84

Source: FEMA Region 2, 2014

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 12/31/2014. Please note the total number of repetitive loss properties does not include the severe repetitive loss properties. The number of claims represents claims closed by 12/31/14.
- (2) Total building and content losses from the claims file provided by FEMA Region 2.
- (3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.  
A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.  
Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude

### Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

Table 9.10-5. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)
Quaker Hill Pump Station	Neighborhood Water Supply		X	-	-	-
Dutchess Estates Water Supply	Neighborhood Water Supply	X	X	-	-	-
Hyde Park Water Pump	Potable Pump	X	X	-	-	-
Northern Dutchess	Fire/EMS	X	X	-	-	-





Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(1)
Paramedics - St. 4						
Roosevelt Fire Department St. 1	Fire	X	X	11.2	42.0	480

Source: Dutchess County

Note (1): HAZUS-MH 2.2 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

Note (2): In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.2

### Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- Communication lines frequently experience outages during storm events due to downed lines and flooding of vaults with equipment.
- Flooding in the Roosevelt Fire District has cut-off over 700 homes from access to emergency services and has frequently bisected the fire district, which causes significant delays
- Inadequate ability for emergency response planning, services and equipment can be attributed to fragmented resources, lack of Comprehensive Mutual Aid Agreements, no comprehensive resource database, and no formulated Mass Causality Plan.
- Flooding along the Fallkill Creek and Crum Elbow Road
- Flooding along the Crum Elbow along 9G
- The Ralph R. Smith Elementary School has repeatedly experienced first floor flooding during heavy rain events.
- NYS Park Police Headquarters in Staatsburg – Ground floor is below grade and experiences flooding from the Hudson River and Indian Kill.
- Not all populations have access to the majority of web-based and cell-based emergency notification systems.



### 9.10.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

#### Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Hyde Park.

**Table 9.10-6. Planning and Regulatory Tools**

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
<b>Planning Capability</b>				
Master Plan	2005	Town	Town Board	Comp. Plan of Town of Hyde Park
Capital Improvements Plan	No			
Floodplain Management / Basin Plan	No			
Stormwater Management Plan	In process			
Open Space Plan	No			
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	Yes 10/06	Fallkill Water Shed	FK Watershed Committee	A Watershed Mgmt. Plan for the Fallkill
Economic Development Plan		County		
Comprehensive Emergency Management Plan	Yes 8/13	Town	Town Board	Comp. Emergency Mgmt. Plan
Emergency Response Plan	No			
Post-Disaster Recovery Plan	No			
Transportation Plan	Yes	County	Transportation Council	Moving Dutchess
Strategic Recovery Planning Report	No			
Other Plans:				
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local		
Zoning Ordinance	4/07*	Town	Town Board	Chapter 108-Zoning
Subdivision Ordinance	4/07*	Town	Town Board	Chapter 96-Subdivision of Land
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local		
NFIP: Cumulative Substantial	No			



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Damages				
NFIP: Freeboard	Yes	State, Local		State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances	No			
Site Plan Review Requirements	4/07	Town	Town Board	§ 108-9 Site Plan Approval
Stormwater Management Ordinance	2/09	Town	Town Board	Chapter 93 Stormwater Mgmt. & ESC
Municipal Separate Storm Sewer System (MS4)	2/09	Town	Town Board	Chap.93 Stormwater Mgmt. & ESC
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	Yes	State		NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]				

**Administrative and Technical Capability**

The table below summarizes potential staff and personnel resources available to the Town of Hyde Park.

**Table 9.10-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	
Environmental Board/Commission	Yes	CAC
Open Space Board/Committee	No	
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	No	
Mutual Aid Agreements	Yes	Fire Districts
<b>Technical/Staffing Capability</b>		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Town Engineer (Consultant)
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Town Engineer
Planners or engineers with an understanding of natural hazards	Yes	Town Engineer
NFIP Floodplain Administrator	Yes*	Zoning Administration
Surveyor(s)	Yes	Town Engineer
Personnel skilled or trained in GIS and/or HAZUS-MH applications	No	





Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Scientist familiar with natural hazards	No	
Emergency Manager	No	
Grant Writer(s)	No	(Town Board)
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	Yes	Town Engineer

**Fiscal Capability**

The table below summarizes financial resources available to the Town of Hyde Park.

**Table 9.10-8. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes – Town Board
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact Fees for homebuyers or developers of new development/homes	Yes
Stormwater Utility Fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Yes
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	No
Other	

**Community Classifications**

The table below summarizes classifications for community program available to the Town of Hyde Park.

**Table 9.10-9. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	In Progress		
Building Code Effectiveness Grading Schedule (BCEGS)	No		
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes		
Storm Ready	No		
Firewise	No		
Disaster/Safety Programs in/for Schools	No		
Organizations with Mitigation Focus (advocacy	No		



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
group, non-government)			
Public Education Program/Outreach (through website, social media)	Yes		
Public-Private Partnerships	No		

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

### Self-Assessment of Capability

The table below provides an approximate measure of the Town of Hyde Park’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.10-10. Self-Assessment Capability for the Municipality**

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X		
Community Political Capability		X	
Community Resiliency Capability	X		
Capability to Integrate Mitigation into Municipal Processes and Activities.		X	



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## National Flood Insurance Program

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### NFIP Floodplain Administrator (FPA)

Kathleen Moss, Zoning Administrator

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### Flood Vulnerability Summary

The Town maintains records of properties when building permits are requested for flood damage repair; each building permit is evaluated for necessity of a Flood Development Permit. During Hurricane Floyd, 1 residential structure was damaged; during Hurricane Irene, 1 residential structure was damaged. All other buildings that required repairs were not substantial enough to require a building permit and were not recorded. There are three known properties that are interested in mitigation; one of these projects has been implemented.

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### Resources

The NFIP FPA is the sole person responsible for floodplain administration in the Town; however, the Town can contract the Town Engineer if necessary. The services provided by the FPA include, Flood Hazard Area determination by property upon request, review of Building Permits for Flood Hazard Area applicability, determine substantial improvement/damage as needed, receive/review and issue flood development permits, review subdivision and site plan applications for flood considerations, field inspections during/post construction, maintain records of FDPs and FHA inquiries, maintain copies of Certificates of Elevation and LOMAs/LOMRs, and provide documentation as required by FEMA/NYSDEC upon request/audit. When a property is issued a Flood Development permit, the FPA will identify to the property owner on the Building Permit authorization that all or a portion of a property is in an area of Special Flood Hazard., discuss flood proofing utilities as an option, even if not performing substantial improvement, and refer individuals to the FEMA website. The FPA indicated a lack of resources to evaluate and implement CRS, due to the Community's view of mitigation as added regulations and a property rights issue, a federally operated dam, which will not be adjusted during extreme storm events, and DEC and ACOE barriers to maintaining channel capacity as barriers to an effective floodplain management program. The FPA indicated that she feels that more education on the position would allow for her to be more effective at it; education opportunities should would like to attend include, Youtube broadcasts for provided conferences, webinars and/or online training with workbooks. The FPA would consider attending continuing education and/or certification training on floodplain management; however, cost is a factor, and the Town typically requires the Code Enforcement Officer, or Building Inspector, to attend continuing education trainings.

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### Compliance History

The Community is currently in good-standing in the NFIP, and it is unknown when the date of the last compliance audit was completed.

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### Regulatory

The Planning and Zoning Boards consider Flood Hazard Areas during application reviews. The Community is in the process of joining the CRS program and would attend a CRS seminar if offered locally.

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### Community Rating System

The Town of Hyde Park is the process of joining the Community Rating System (CRS) program.



## Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

### Planning

**Land Use Planning:** The Town has a Planning Board and Zoning Board of Appeals which review all applications for development and consider natural hazard risk areas in their review. Many development activities require additional levels of environmental review, specifically NYS SEQR and Federal NEPA requirements.

**Town of Hyde Park Comprehensive Plan 2005:** The Town completed a Comprehensive Plan, which included the identification of local stormwater and open space issues, as well as land use and zoning recommendations for managing those risks. Some of the recommendations included the following:

1. The Storm water Run-off Program establishes a unified policy for the control and management of storm water run-off in the Town of Hyde Park. This program identifies the principal natural drainage courses within the Town and establishes the best management policies to protect and enhance their ability to remove storm water flows while minimizing flooding, preventing erosion, and supporting the more compact community districts. Integrate the Town's natural resources to determine appropriate land use regulations, such as a wetland, waterbody and watercourse protection law or a steep slopes protection law.
2. The Open Lands Program designates all land in the Town of Hyde Park outside of Neighborhoods, Hamlets, Business Districts, Landings, and the Bellefield Planned Development District as either Greenbelt (east of US Route 9) or Waterfront (west of US Route 9). The Greenbelt and Waterfront encompass environmentally sensitive areas, historic sites, scenic areas, Agricultural District 20 and other public and quasi-public lands. Agricultural lands contribute to the rural nature of the community. This program generally discourages development in these areas, but does allow for specific projects determined to be appropriate for a particular location through the PUD process.

**Comprehensive Emergency Management Plan 2013:** This plan results from the recognition on the part of local government and state officials that a comprehensive plan is needed to enhance the Town's ability to manage emergency/disaster situations. It was prepared by Town officials, in coordination with Dutchess County, working as a team in a planning effort recommended by the New York State Emergency Management Office. This plan constitutes an integral part of a statewide emergency management program and contributes to its effectiveness. Authority to undertake this effort is provided by both Article 2-B of State Executive Law and New York State Defense Emergency Act.

**Conservation Planning:** The Town Conservation Advisory Council's mission is to advise the Town Board and Planning Board of the Town of Hyde Park in the development, management, and protection of the natural resources of the Town of Hyde Park and to make recommendations on land development affecting the environment.



## Regulatory and Enforcement

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**Flood Damage Prevention Chapter 60:** It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters;
- D. Control filling, grading, dredging and other development which may increase erosion or flood damages;
- E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and
- F. Qualify for and maintain participation in the National Flood Insurance Program.

**Zoning Code Chapter 108:** Hyde Park's zoning code includes districts and standards pertaining to the mitigation of hazards. These sections include the Floodplain regulations, wetlands, stormwater management & erosion control standards.

**Site Plan/Subdivision Review Chapter 96:** The Town's Planning Board is tasked with site plan/subdivision review. The Planning board pays special attention to ensure that developments mitigate the issues associated with flooding or steep slopes.

**Building Code Chapter 40:** The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The chapter includes a provision to allow the building inspector to make emergency repairs to protect the health safety and welfare of the residents.

## Fiscal

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**Operating Budget:** The Town's operating budget contains minimal provisions for expected repairs like snow removal and infrastructure repair after a storm or natural disaster.

## Education and Outreach

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The Town has a notification email list link on the website. The Towns includes a link to the Comprehensive Emergency Plan and the Comprehensive Plan. The Planning Department is a member of the Dutchess County Planning Federation and attends trainings and researches best practices that other communities are implementing. DPW takes classes and implements in hazardous reduction techniques in various capital improvements. The Town has planned to budget for training for personal including professional development geared towards health and safety.

### 9.10.6 Mitigation Strategy and Prioritization

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This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

#### Past Mitigation Initiative Status

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The Town of Hyde Park has no prior mitigation strategy.



### **Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy**

The Town of Hyde Park has identified the following as mitigation projects/activities that have been completed, are planned, or on-going within the municipality:

- The Town has conducted several engineering studies to address flooding issues.
- The Town relocated Roosevelt Fire Department Station #3 which was located in a floodplain.
- The Town relocated the Police Station which was located in a floodplain.
- Hidden Brook MHP replaced a failing culvert on Maritj Kill tributary
- County replaced Greentree Drive South major culvert on Crum Elbow Creek
- Town has replaced miscellaneous major culverts and bridges over last 15 years

### **Proposed Hazard Mitigation Initiatives for the Plan**

The Town of Hyde Park participated in a mitigation action workshop in May 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.10-11 summarizes the comprehensive-range of specific mitigation initiatives the Town of Hyde Park would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.10-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.10-11. Proposed Hazard Mitigation Initiatives**

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
HP-1	Roosevelt Road area - Continue to evaluate potential projects to mitigate flooding along the Fall Kill, Maritje Kill and Crum Elbow Creek. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".											
	See Above	New	Flooding	G1,3,4	Town	High	High	Grants	1-5 yrs.	High	SIP	SP
HP-2	Staatsburg Flood Mitigation	Exist	Flooding	G2,3,4	Town	High	High	Grants	>5 yrs.	High	SIP	SP
HP-3	Brower Blvd. Flood Mitigation	Exist	Flooding	G2,3,4	Town	High	High	Grant/Hwy Budget	>5 yrs.	Medium	SIP	SP
HP-4	Fallkill Creek Dam Removal	Exist	Flooding	G2,3,4	Town	Medium	Medium	Grants	1-5 yrs.	High	SIP	SP
HP-5	Notify and provide needed support to the facility manager/operator of the critical facilities in the Town to evaluate their flood risk and determine possible mitigation options. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	Existing	Flood	G2,3,4	Town	High	High	Grants	DOF	Medium	SIP	SP

**Costs:**

Where actual project costs have been reasonably estimated:

- Low < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where actual project costs cannot reasonably be established at this time:

- Low Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
- Medium Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
- High Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

**Benefits:**

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

- Low= < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

- Low Long-term benefits of the project are difficult to quantify in the short term.
- Medium Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
- High Project will have an immediate impact on the reduction of risk exposure to life and property.





Mitigation Category:

- *Local Plans and Regulations (LPR)* – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- *Structure and Infrastructure Project (SIP)*- These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- *Education and Awareness Programs (EAP)* – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- *Preventative Measures (PR)* - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- *Property Protection (PP)* - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- *Public Information (PI)* - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- *Natural Resource Protection (NR)* - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- *Structural Flood Control Projects (SP)* - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- *Emergency Services (ES)* - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9.10-12. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
HP-1	Roosevelt Road Emergency Access Road	1	-1	1	1	1	1	0	1	1	1	0	1	1	0	9	High
HP-2	Staatsburg Flood Mitigation	0	1	0	1	1	0	-1	0	0	-1	0	-1	1	0	3	High
HP-3	Brower Blvd. Flood Mitigation	0	1	1	1	1	-1	-1	0	0	1	0	-1	0	0	2	Medium
HP-4	Fallkill Creek Dam Removal	0	1	1	1	1	0	-1	0	0	1	0	1	1	0	6	High
HP-5	Notify and provide needed support to the facility manager/operator of the critical facilities in the Town to evaluate their flood risk and determine possible mitigation options. Assure that any mitigation addresses the 500-year flood event or "worst damage scenario".	1	1	1	1	1	0	0	0	0	1	0	0	0	0	6	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



### **9.10.7 Future Needs To Better Understand Risk/Vulnerability**

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None at this time.

### **9.10.8 Hazard Area Extent and Location**

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Hazard area extent and location maps have been generated for the Town of Hyde Park that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Hyde Park has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

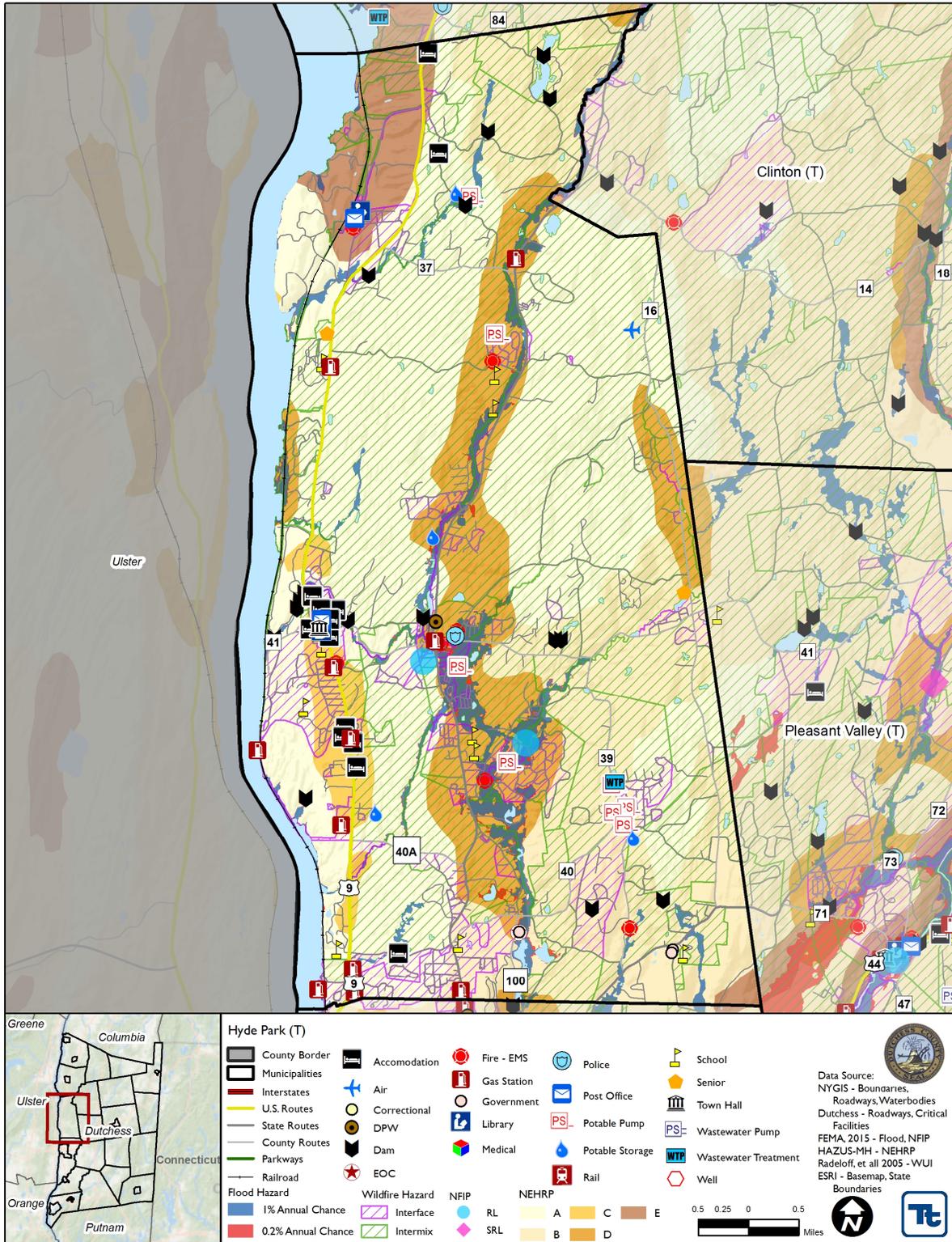
### **9.10.9 Additional Comments**

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None at this time.



Figure 9.10-1. Town of Hyde Park Hazard Area Extent and Location Map





Action Number:

1

Mitigation Action Name:

Roosevelt Road Emergency Access Road

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flooding
<b>Specific problem being mitigated:</b>	Severe flooding closing two main access roads to Roosevelt Road. development
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	Evaluations included replacing upstream Roosevelt Road major culverts but cost prohibitive.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Upgrade emergency access road through NPS property to private access during severe flooding event.
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	1,3,4
<b>Applies to existing and or new development, or not applicable</b>	N/A
<b>Benefits (losses avoided)</b>	Provides emergency access for Roosevelt Road development road closures during severe flooding.
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Town of Hyde Park
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	Grant Funding/local cost share
<b>Timeline for Completion</b>	Short 1-5 years
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 11/25/15 Progress on Action/Project: New



Action Number: 1  
 Mitigation Action Name: Roosevelt Road Emergency Access Road

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will provide emergency access route when both access roads to Roosevelt Rd. Development are closed
Property Protection	-1	
Cost-Effectiveness	1	Highly effective to provide life safety
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	9	
<b>Priority (Tier I, II or III)</b>	High	



Action Number:

2

Mitigation Action Name:

Staatsburg Flood Mitigation

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Flooding
<b>Specific problem being mitigated:</b>	Severe flooding causing damage to houses and road closures
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	Evaluation included enlarging existing culvert system but is not practical with utility conflicts
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Construct stormwater detention basins on adjacent state golf course to mitigate flow
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	2,3,4
<b>Applies to existing and or new development, or not applicable</b>	N/A
<b>Benefits (losses avoided)</b>	Eliminate flooding in Village of Staatsburg
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	Town of Hyde Park
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	Grant Funding
<b>Timeline for Completion</b>	Long Term 5 years or greater
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: 11/25/15 Progress on Action/Project: New



Action Number: 2  
 Mitigation Action Name: Staatsburg Flood Mitigation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Will solve private property flooding damage and Old Post Road flooding.
Cost-Effectiveness	0	
Technical	1	Can incorporate stormwater management with existing golf course.
Political	1	
Legal	0	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	-1	
Multi-Hazard	0	
Timeline	-1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	<b>3</b>	
<b>Priority (Tier I, II or III)</b>	<b>High</b>	



Name of Jurisdiction: Town of Hyde Park  
 Name and Title Completing Worksheet: Peter D. Setaro, PE, Consulting Town Engineer  
 Action Number: 3  
 Mitigation Action Name: Brower Blvd. Flood Mitigation

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	Severe flooding causing damage to houses and properties
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No other evaluations were reviewed, there is only one technical solution to flooding problem
Action/Project Intended for Implementation	
Description of Selected Action/Project	Replace existing road crossing with large pipe and obtain easements to install new larger pipe system to outlet
Mitigation Action Type	SIP
Goals Met	2,3,4
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Damage to Brower Blvd. properties from flooding
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Hyde Park
Local Planning Mechanism	
Potential Funding Sources	Grant Funding/Highway Budget
Timeline for Completion	Long Term-5 years or greater
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 11/25/15 Progress on Action/Project: New



Action Number:

3

Mitigation Action Name:

Brower Blvd. Flood Mitigation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	No further property damages
Cost-Effectiveness	1	Low cost to solve flooding
Technical	1	Enlarging pipe will solve flood problem
Political	1	
Legal	-1	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	
Timeline	-1	
Agency Champion	0	
Other Community Objectives	0	
<b>Total</b>	<b>2</b>	
<b>Priority (Tier I, II or III)</b>	<b>Medium</b>	



Name of Jurisdiction: Town of Hyde Park  
 Name and Title Completing Worksheet: Peter D. Setaro, PE, Consulting Town Engineer  
 Action Number: 4  
 Mitigation Action Name: Fallkill Creek Dam Removal

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	Reduce extreme flood levels for properties upstream of dam
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No other evaluations. Dam removal is only option.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Remove small dam on Fallkill Creek to reduce extreme flood levels for properties in Sucato/Lyons Drive area
Mitigation Action Type	SIP
Goals Met	2,3,4
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Property damage from extreme flooding.
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Hyde Park
Local Planning Mechanism	
Potential Funding Sources	Grant funding
Timeline for Completion	Short 1-5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 11/25/15 Progress on Action/Project: New



Action Number:

4

Mitigation Action Name:

Fallkill Creek Dam Removal

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Will reduce property damage
Cost-Effectiveness	1	Very Low cost to reduce upstream property flooding
Technical	1	Simple by removing small dam
Political	1	
Legal	0	
Fiscal	-1	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	<b>6</b>	
<b>Priority (Tier I, II or III)</b>	<b>High</b>	