



## 9.5 TOWN OF BEEKMAN

This section presents the jurisdictional annex for the Town of Beekman.

### 9.5.1 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
Barbara A. Zulauf, Supervisor 4 Main Street, Poughquag, NY 12570 845-724-5300 x225 <a href="mailto:supervisor@townofbeekmanny.us">supervisor@townofbeekmanny.us</a>	Mike Moran, Deputy Supervisor 4 Main Street, Poughquag, NY 12570 845-724-5300 x232 <a href="mailto:mmoran@townofbeekmanny.us">mmoran@townofbeekmanny.us</a>

### 9.5.2 Municipal Profile

The Town of Beekman is located in the south-eastern quadrant of Dutchess County, NY, about 15 miles directly east of Poughkeepsie. The Town has a total land area of 30.36 square miles, of which 29.84 square miles is land and 0.52 square miles is water. The Town’s primary waterways are Fishkill Creek, the Sylvan Lake Outlet, and Frog Hollow Creek. The Town’s other noteworthy geographical feature is the Hudson Highlands, which are part of the Appalachian Mountains and pass through the southern and extreme northeastern portions of the Town.

The Town is home to several hamlets, including Poughquag, Beekmanville, Green Haven, Clove Valley, and Sylvan Lake. The Town is adjacent to the Town of Union Vale to the north, the Towns of Dover and Pawling to the east, the Town of LaGrange to the west, and the Town of East Fishkill to the south. The Town was one of the first municipalities recognized in the State of New York, and the Town’s current boundaries were established in 1827. The Town’s population has grown in recent years, and most of the community is devoted to single-family housing. The Town’s more vulnerable structures and critical facilities will be discussed in further detail throughout the Hazard Mitigation Plan and this annex.

Although the Town contains no major highways, its two largest transportation corridors are Route 55, which connects to the City of Poughkeepsie, and Route 216, which runs north-south from Stormville to Poughquag.

According to the 2010 U.S. Census, the population of the Town of Beekman was 14,621.

### 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 9.5.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.5-1. 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>					
Martin Road Development	Residential	36	Martin Road	None	+/- 90% build out
<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
Springs @ Beekman	Res	199	Greenhaven Road (CRB)	Zone AE	Approved – No Construction
Stone Ridge Estates	Res	18	Benton Moore Road	None	Approved – Infrastructure Cost
Frog Hollow	Res	7	Depot Hill Road	None	Approved
Alana Estates	Res	16	Beekman Poughquag Road (CR7)	None	Planning Process
Delfina Estates	Res	14	Clapp Hill Road	None	Planning Process

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

### 9.5.3 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 9.5-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 – September 5, 2011	Hurricane Irene	DR-4020	Yes	<p>Portions of the Town lost power for about 6 days, and several roads had to be closed for repair. Public assistance was requested for a 3-day supply of water and dry ice. Several facilities were damaged, including the Van Wyck Park (gravel access road and hiking trail eroded, park bench displaced, and large amounts of tree-related debris) and the Recreation Park (damages to swimming pool, pre-treatment filtration pond, post-treatment retention pond, chlorination facility, and surrounding play areas).</p> <p>The most significant damage was to infrastructure, as the storm washed out drainage culverts, eroded road surfaces, and deposited debris in roadways throughout the Town. Infrastructure with significant damage included 118 Lookout Pass, 61 Paine Road, Baker Road Culvert, Clapp Hill, Harden Drive and Clapp Hill, Gardner Hollow, and Benton Moore.</p>

### 9.5.4 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 Beekman. 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 Beekman.

**Table 9.5-3. 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: \$3,629,395.00 500-year MRP: 27631905 Annualized: \$320,715.00	Frequent	48	High
Drought	Damage estimate not available	Frequent	42	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$626,970 2,500-Year GBS: \$9,259,122	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	21	Medium
Flood	1% Annual Chance: \$11,035,920	Frequent	36	High
Severe Storm	100-Year MRP: \$3,629,395 500-year MRP: \$27,631,905 Annualized: \$320,715	Frequent	48	High
Winter Storm	1% GBS: \$24,494,600 5% GBS: \$122,472,998	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$3,471,961,846	Frequent	48	High

Notes:

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

- The general building stock valuation is based on the custom inventory generated for the municipality and based on improved value.
- 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
- 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 Beekman.

**Table 9.5-4. 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 Beekman	32	3	\$5,493.80	0	0	6

Source: FEMA Region 2, 2014

- 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 includes the severe repetitive loss properties. The number of claims represents claims closed by 12/31/14.
- Total building and content losses from the claims file provided by FEMA Region 2.
- 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 9.5-5. 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 <sup>(1)</sup>
Dalton Farms Well #1	Well	X	X	-	-	-
Dalton Farms Well #2	Well	X	X	-	-	-

Source: Dutchess County, NYGIS

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:

- Seasonal residential homes have been subject to flooding from Sylvan Lake Outlet (Dutchess County FIS 2012).
- The most highly flood-prone areas along Frog Hollow Brook extend from the Hamlet of Greenhaven to the confluence with Fishkill Creek (Dutchess County FIS 2012).
- The downstream areas between the confluence of Whaley Lake Stream and the Hamlet of Poughquag are subject to inundation (Dutchess County FIS 2012).
- TransCare EMS services the Town of Beekman, and has reported that electricity and communications utility infrastructure within the locality is prone to power failure, and not sufficiently disaster resistant to support EMS functions during and after natural hazard events. Further, the company recommends improving communications regarding road closures and pending road closures during natural hazard events between the Town and private emergency response companies and personnel.



### 9.5.5 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 Beekman.

**Table 9.5-6. 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	Yes	Local	Town Board	Adopted 2007 Plan includes steep slopes, floodplain, and wetlands references
Capital Improvements Plan	Yes	Local	Town Board	Started 2015
Floodplain Management / Basin Plan	Yes	Local	Floodplain Administrator	-
Stormwater Management Plan	Yes	Local	Stormwater Management Officer	This plan specifies projects to mitigate stormwater flooding.
Open Space Plan	Yes	Local	Town Board	Adopted 2005 Does not address natural hazard risk
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	Yes	Local	Town Board	Adopted 2008 Does not address natural hazard risk
Comprehensive Emergency Management Plan	No	-	-	-
Emergency Response Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	N/A	-	-	-
<b>Regulatory Capability</b>				
Building Code	Yes	State & Local	Planning Board & Engineer	-
Zoning Ordinance	Yes	Local	Zoning	Considers natural hazard risk through a



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.)
			Board, Engineer & Code Enforcement Officer	Town Engineer review and CAC steep slope review. The Town will take additional actions on a case-by-case basis, with avoidance as the preferred method.
Subdivision Ordinance	Yes	Local	Planning, Zoning Board, Engineer	Considers natural hazard risk through a Town Engineer review and CAC steep slope review. The Town will take additional actions on a case-by-case basis, with avoidance as the preferred method.
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Floodplain Administrator	-
NFIP: Cumulative Substantial Damages	No	-	-	-
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	Yes	Local	Planning Board, Engineer	-
Stormwater Management Ordinance	Yes	Local	Stormwater Management Officer	-
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Stormwater Management Officer	-
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)]	Yes	-	-	-

**Administrative and Technical Capability**

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

**Table 9.5-7. Administrative and Technical Capabilities**

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	Yes	Planning
Mitigation Planning Committee	Yes	Town Board
Environmental Board/Commission	Yes	CAC





Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Open Space Board/Committee	Yes	Town Board
Economic Development Commission/Committee	No	-
Maintenance Programs to Reduce Risk	No	-
Mutual Aid Agreements	Yes	Town Board
<b>Technical/Staffing Capability</b>		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Engineer & Code Enforcement Officer
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Engineer & Code Enforcement Officer
Planners or engineers with an understanding of natural hazards	Yes	Engineer & Code Enforcement Officer
NFIP Floodplain Administrator	Yes	Building Inspector
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or HAZUS-MH applications	No	-
Scientist familiar with natural hazards	No	-
Emergency Manager	Yes	Town Board
Grant Writer(s)	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	Yes	Town Board

### Fiscal Capability

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

**Table 9.5-8. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	Yes
Open Space Acquisition Funding Programs	Yes
Other	N/A

### Community Classifications

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





**Table 9.5-9. Community Classifications**

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
Storm Ready	No	-	-
Firewise	No	-	-
Disaster/Safety Programs in/for Schools	No	-	-
Organizations with Mitigation Focus (advocacy group, non-government)	No	-	-
Public Education Program/Outreach (through website, social media)	No	-	-
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 Beekman’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.5-10. Self-Assessment Capability for the Municipality**

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High





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	

### National Flood Insurance Program

The following section provides details on the National Flood Insurance Program (NFIP) as implemented within the municipality:

#### NFIP Floodplain Administrator

Shawn Beresford, Town of Beekman Building Inspector

#### Flood Vulnerability Summary

As supported by the low number of claims and policies described later in this section, the Town of Beekman has a relatively low vulnerability to flood damage. The municipality maintains active inventories of flood-damaged properties and notes that there are currently no property owners who feel the need for mitigation or protective measures, such as elevation or acquisition.

Although some public property was damaged as a result of Hurricane Irene, no privately owned structures were damaged. In addition, the Town notes flooding to be an infrequent occurrence. Despite the low vulnerability to flooding, the Town pursues flood mitigation opportunities, including education and new regulations, where applicable or beneficial.

#### Resources

The community FDPO identifies the Town Building Inspector as the local NFIP Floodplain Administrator, currently Shawn Beresford, for which floodplain administration is an auxiliary duty.

It is the intent and purpose of the NFIP Floodplain Administrator to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas. Floodplain manager duties include: 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; require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; control filling, grading, dredging and other development which may increase erosion or flood damages; regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and qualify for and maintain participation in the National Flood Insurance Program.

The Building Inspector feels he and his staff are adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator; however, he would participate in any continuing education or certification training on floodplain management were it offered for all local floodplain administrators.



### Compliance History

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Since 1978, three claims have been paid totaling \$5,494. Following Hurricane Irene, the damage throughout the Town included washed-out drainage culverts, eroded road surfaces, and debris deposits. Additionally, portions of the Town lost power for up to 6 days, and the Van Wyck Park and Recreation Park facilities experienced structural damage.

The most significant damage was to infrastructure, as the storm washed out drainage culverts, eroded road surfaces, and deposited debris in roadways throughout the Town. Infrastructure with significant damage included 118 Lookout Pass, 61 Paine Road, Baker Road Culvert, Clapp Hill, Harden Drive and Clapp Hill, Gardner Hollow, and Benton Moore.

The Town is currently in good standing in the NFIP. The current NFIP Floodplain Administrator has no knowledge of when the last CAV was performed. The municipality sees no specific need for a CAV at this time.

### Regulatory

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The Town's Flood Damage Prevention Ordinance (FDPO) was last reviewed and updated in April 2012 and is found in Chapter 83 of the local code. Floodplain management regulations and ordinances meet the FEMA and New York State minimum requirements.

There are additional ordinances, plans, and programs within the Town, including the establishment of buffer areas for streams and wetlands, further supporting the enforcement of the floodplain management program. These regulations, most recently updated in 2010, can be found in Chapter 155-46 (Landscaping, Screening, and Buffer Areas) and 155-52 (Wetland, Waterbody, and Watercourse Protection).

### Community Rating System

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The Town of Beekman does not participate in the Community Rating System (CRS) program.

### Other Capabilities Identified

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Previous actions that are now on-going programs and capabilities are described below. Refer to Table 9.5-11 presented later in this annex.

- The Town has created greater restrictions on building in the floodplain.
- The Town has implemented buffers for streams and wetlands and will maintain these according to DEC guidance and regulations.
- The Town has implemented additional plans besides State- and federally-mandated plans, including an emergency plan for tree removal near power lines.
- The Town Code Enforcement Officer attends instructional seminars as they are available. This action helps ensure detailed code enforcement of State and Local Building Codes.
- The Town regularly reviews and updates the official town website "hazard mitigation page" to show current information on hazard mitigation response and imminent threats.
- The Town updates and revises floodplain maps to ensure use of the most recent FEMA data on an annual basis. The Town also ensures that the maps are available in both electronic and hard copy. Maps are easily accessible to residents and clearly indicate the 25-year, 100-year, and 500-year floodplains.

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

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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 Beekman Comprehensive Plan Update 2011:** The Town completed a Comprehensive Plan Update, which included the identification of natural hazard risk areas like floodplains, wetlands, and steep slopes, as well as land use and zoning recommendations for managing those risks. Some of the recommendations included the following:

1. Evaluate 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. Create regulations that address the need for impervious surfaces and natural drainage design features.
3. Explore the feasibility of utilizing alternative road material to improve drainage and stormwater management
4. Adopt a wetlands, waterbody and watercourse protection law.
5. Adopt a steep slopes protection law that includes provisions to protect ridgelines and viewsheds.
6. Create an aquifer protection overlay district to be included in the Town's zoning ordinance. Regulations may include a maximum impervious surface area, an alternative minimum lot size requirement for septic-dependent residences within the Town Center, and prohibition of particularly deleterious land uses and activities.
7. Require site plan and subdivision applicants to demonstrate environmentally conscientious and energy efficient plans (e.g. water-conserving landscaping plants).
8. Continue to support and invest the necessary resources to the municipal Fire, Police, and Emergency Medical Service squads in order to maintain a high level of public safety and security. Enact a local law at the Town level to take advantage of the NYS tax incentives for emergency service volunteers.

**Conservation Planning:** The Town of Beekman Conservation Advisory Council (CAC) is a voice for the environment. The CAC functions in an advisory capacity to the various Town boards regarding matters of the environment and the natural resources of the Town. These resources include open spaces, woodlands, wetlands, streams, lakes, recreational, historical, and agricultural uses. Additionally, the CAC provides steep slope reviews to assist the Town with natural hazard risk management decisions.

**Code Updates:** The Town considers and will incorporate hazard mitigation and prevention into all relevant code updates on a regular basis. For instance, the Town has identified the need to add snow removal to local ordinances during the next code update.

## Regulatory and Enforcement

**Flood Damage Prevention Chapter 83:** 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 155:** Beekman’s zoning code includes districts and standards pertaining to the mitigation of hazards. These sections include the Floodplain regulations, stormwater management & erosion control standards.

**Site Plan/Subdivision Review:** 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 51:** 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 Disaster & Emergency Preparedness Committee and an emergency response webpage with contact information on it. 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.



### **9.5.6 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 following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



**Table 9.5-11. Past Mitigation Initiative Status**

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
Expand official town website to include “hazard resource page”. To contain general information on hazard mitigation/response, as well as correct updated information on hazard threats/imminent hazards. Encourage short wave radios and other technology not subject to problems with the power grid.	Town Clerk	In Progress	The Town has begun working to get the proper information posted on the website.	Include in 2015 HMP	May need to be reviewed and updated on a yearly basis. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Establish Town of Beekman Hazards Action Corps to be comprised of local residents’ specialized knowledge regarding various hazards and response techniques. Those listed can enhance awareness of hazards and provide advance awareness of hazards and provide advanced knowledge when presented with imminent threats.	Fire District	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Issue guidelines an Official Town Hazards Webpage providing information for survival and subsistence during hazard events, including: batteries, transistor radio (technological communications devices may be down for some time, water, food, safe haven to ride or storm, etc.)	Town Clerk	In Progress	The Town has begun working to get the proper information posted on the website.	Include in 2015 HMP	May need to be reviewed and updated on a yearly basis. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Update Town maps using recently updated FEMA data. Create high-quality electronic and hard copy flood-hazard maps; make available to residents. Maps should clearly indicate Floodways, 25-year,	Town Board	Complete	Updated at Town Board meeting on November 5, 2014	Include in 2015 HMP	1. Needs to be reviewed and updated annually 2. Maps need to be made available annually. 3. Change word phrasing of action to indicate it as an ongoing action/recurring action.



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
100-year and 500-year floodplains.					Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Review existing local policies & regulations pertaining to flood hazard. Update and/or adjust policies and regulations to maximize flood hazard avoidance	Town Board	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Prepare and post on hazards action Town Webpage information about any OMB. Provide survival & subsistence instructions.	Town Board Town Clerk	In Progress	The Town has begun working on this action in conjunction with Pawling and Union Vale.	Include in 2015 HMP	May need to be reviewed and updated on a regular basis. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Identify homes and settlements in path of destruction if a dam were to break for purpose of public education. This action should be undertaken in conjunction with action proposed for flooding (above).	Town Board, Planning Board	In Progress	The Town has begun working on this action in conjunction with Pawling and Union Vale.	Include in 2015 HMP	Continue to work with Pawling and Union Vale. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Identify owners/responsible parties for dam maintenance and inspection agencies for all dams, whether or not within Town of Beekman. Likewise, research physical condition, record of inspections and maintenance. Visually inspect dams using qualified members of Town Hazards Action Corps (see above).	Town Board Planning Board	In Progress	The following dams have been identified – Pawling Dam and Dam in Union Vale. The Town needs continued dialogue with neighboring Towns as to other dam maintenance updates	Include in 2015 HMP	Continue to work with neighboring Towns on other dam maintenance updates. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
Implement system through which those residents in harm's way during a dam break can be warned in order to provide advance notice.	Town Board Planning Board	In Progress	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Evaluate condition of spillways (intended to release water in a manageable way so as not to inundate downstream areas)	Town Board Planning Board	In Progress	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Identify geographical areas of potential concern. Research historical locations of wildfires in Beekman and immediately surrounding communities	Planning Board	No Progress	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Assess feasibility of silviculture to reduce fuel sources on forest floor. Remove/harvest fallen or dead trees	Zoning Update Committee	No Progress	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Publish information on town hazards webpage recommending the keeping of extra food and water provisions	Building Department Town Clerk	In Progress	The Town has begun working to get the proper information posted on the website.	Include in 2015 HMP	May need to be reviewed and updated on an annual basis. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Establish Volunteer Squad to visit/assist households occupied by elderly residents. Extreme temperatures are a significant threat, and many are not able to take measures to protect themselves singlehandedly.	Emergency Medical Team, work with local EMTS Town Clerk	In Progress	The Town has begun working to get the proper information posted on the website.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
Issue guidance on hazards webpage, such as: maintain new batteries, transistor radio. Keep supplies of nonperishable food in homes. If power were to persist longer than 24 hours, extra vigilance may be necessary to maintain order. Neighbors may collaborate to protect neighborhood residents and property.	Building, Department Town Clerk	In progress	The Town has begun working to get the proper information posted on the website.	Include in 2015 HMP	May need to be reviewed and updated on an annual basis. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Any significant earthquake would likely require outside help from higher levels of government. Post online information providing survival advice, such as abandoning severely damaged building during and after earthquakes	Building Department	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Provide educational information online. Indoors is likely to be the safest place to wait for the lightning storm to pass.	Emergency team such as EMTS	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Restrict building in Flood Plains	Zoning Update Committee	Complete	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Eliminate stream channelization	Zoning update Committee , NYDEC and Dutchess County Soil and Water	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
Implement buffer for streams & wetlands	Zoning Update Committee	Complete	Updated in our Zoning update of 2010	Include in 2015 HMP	1. Needs to be updated as needed to conform with DEC regulations 2. Reword action appropriately for this update. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Develop emergency plan for tree removal near power lines	Code Enforcement	Complete	NYSEG has accomplished with independent contractors	Include in 2015 HMP	1. The Town should review this every 2 years 2. Reword action appropriately for this update. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Public Awareness	Code Enforcement, Building Department	In Progress	No additional information available.	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Research prior problem areas to develop a plan to prevent future ice jam problems	Zoning Department	No Progress	The Town has determined this action is no longer relevant at the Town-level.	Discontinue	1. The Town notes that it has no history of ice jams. 2. The Town also notes that this action falls under County purviews due to bridge maintenance requirements.
Research problem areas to develop a plan to prevent future dam failures	Local Dam Committee	Complete	All dams have plans and inspections by NYS	Discontinue	This action has been marked as complete and does not need further inclusion in the HMP.
Research funding for repair and replacement of the Whaley Lake Dam	Local Dam Committee	In Progress	The Town is currently working in conjunction with Pawling to complete this action.	Include in 2015 HMP	Continue to work with Pawling Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
					Town will reprioritize this action when appropriate time and funding emerges.
Mapping areas of potential home loss	Zoning Department	In Progress	The Town is currently working in conjunction with Pawling to complete this action. This action will be included as part of each dam's plan.	Include in 2015 HMP	Continue to work with Pawling Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Update/revise floodplain management ordinances to be consistent with FIRMs	Building Department	Complete	No additional information available	Include in 2015 HMP	Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.
Require staff involved in Floodplain management and ordinance enforcement to become Certified Floodplain Managers (CFMs)	Code Enforcement	No progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Join the Community Rating System	Town Board, Planning, Code Enforcement Town Board CP6, Chairperson	In Progress	No additional information available	Discontinue	The Town is still interested in completing this action; however, it cannot implement this project until funding becomes available. Pending funding availability, the Town will refocus on this project.
Code update: Review existing local codes and ordinances against the identified hazards to determine whether there need to be any amendments to address identified hazards and, where a need is identified modify/ amend the codes/ordinances as applicable	Town Board, Building Department, Fire Department	In Progress	The Town has identified the need to add snow removal to the local codes and ordinances.	Discontinue	The Town has discontinued this action as it is a standard operational capability.



2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2015 HMP? or Discontinue)	Describe Next Step
Code enforcement: Enforcement of NYS and Local Building Codes with continual CEO training	Town Board, Building Department, NYS	In progress	The Town follows the requirements for this initiative as set forth by the State of New York.	Include in 2015 HMP	1. The Town has determined that continued training is beneficial 2. Reword action appropriately for this update. Due to funding dependency, the Town has elected not to include this action in Table 9.5-12. The Town will reprioritize this action when appropriate time and funding emerges.



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

The Town of Beekman has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- Replacement of vulnerable and older culverts throughout Town, where necessary.

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

The Town of Beekman 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). In 2015, the Town of Beekman participated in a second workshop and was provided the results to the risk assessment to further assist with the identification of mitigation actions.

Table 9.5-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Beekman 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 9.5-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.5-12. Proposed Hazard Mitigation Initiatives**

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
TB-1	The Town of Beekman is looking to implement public awareness with common sense safety practices. The Fire Department (at an open house at local school) can offer general precautions on fire safety in forests. If residents are properly educated on fire precautions, the benefits will be huge. The acres of burnt forest will be non-existent.	Existing	Wildfire	1, 2, 3, 4	Beekman Fire Department Fire Instructor	Medium	Medium	FEMA PDM, HMGP, Fire Management Assistance Grant Program, and NYSERDA	Short-term; then ongoing	Medium	EAP	PI
TB-2	Create fire breaks; remove all woody and flammable vegetation.	New	Wildfire	1, 2, 3, 4	Beekman Fire Department	Medium	Medium	FEMA PDM, HMGP, Fire Management Assistance Grant Program, and NYSERDA	Short-term	Medium	SIP	PP
TB-3	Notify and provide needed support to the facility manager/operator of Dalton Farms to evaluate their two critical structures (both wells) for flood vulnerability and identify possible feasible mitigation actions. Coordinate with Dutchess County Water and Wastewater (property owner of structures) on mitigation for these structures. Assure that any mitigation addresses the 500-year flood or "worst case scenario".	Existing	Flood, Severe Storms	2, 3	Municipal NFIP FPA, Dutchess County Water and Wastewater	High – Reduced Risk to Critical Facility	Low	Staff Time, FEMA, NYS DHSES, County, Municipal	Short	Medium	EAP, LPR	PI, PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

\*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV Community Assistance Visit

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program

Timeline:

Short 1 to 5 years





Acronyms and Abbreviations:

CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued)
SRL	Severe Repetitive Loss Grant Program (discontinued)

Timeline:

Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

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 9.5-13. 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
TB-1	The Town of Beekman is looking to implement public awareness with common sense safety practices. The Fire Department (at an open house at local school) can offer general precautions on fire safety in forests. If residents are properly educated on fire precautions, the benefits will be huge. The acres of burnt forest will be non-existent.	1	1	1	0	0	0	1	1	1	1	0	0	1	0	8	Medium
TB-2	Create fire breaks; remove all woody and flammable vegetation.	1	1	1	0	0	0	1	1	1	1	0	1	1	0	9	Medium
TB-3	Encourage Dalton Farms to evaluate their two critical structures (both wells) for flood vulnerability and identify possible feasible mitigation actions. Coordinate with Dutchess County Water and Wastewater (property owner of structures) on mitigation for these structures.	0	1	1	0	0	0	1	0	1	1	1	1	0	0	7	Medium

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



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

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None at this time.

### **9.5.8 Hazard Area Extent and Location**

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Hazard area extent and location maps have been generated for the Town of Beekman 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 Beekman has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

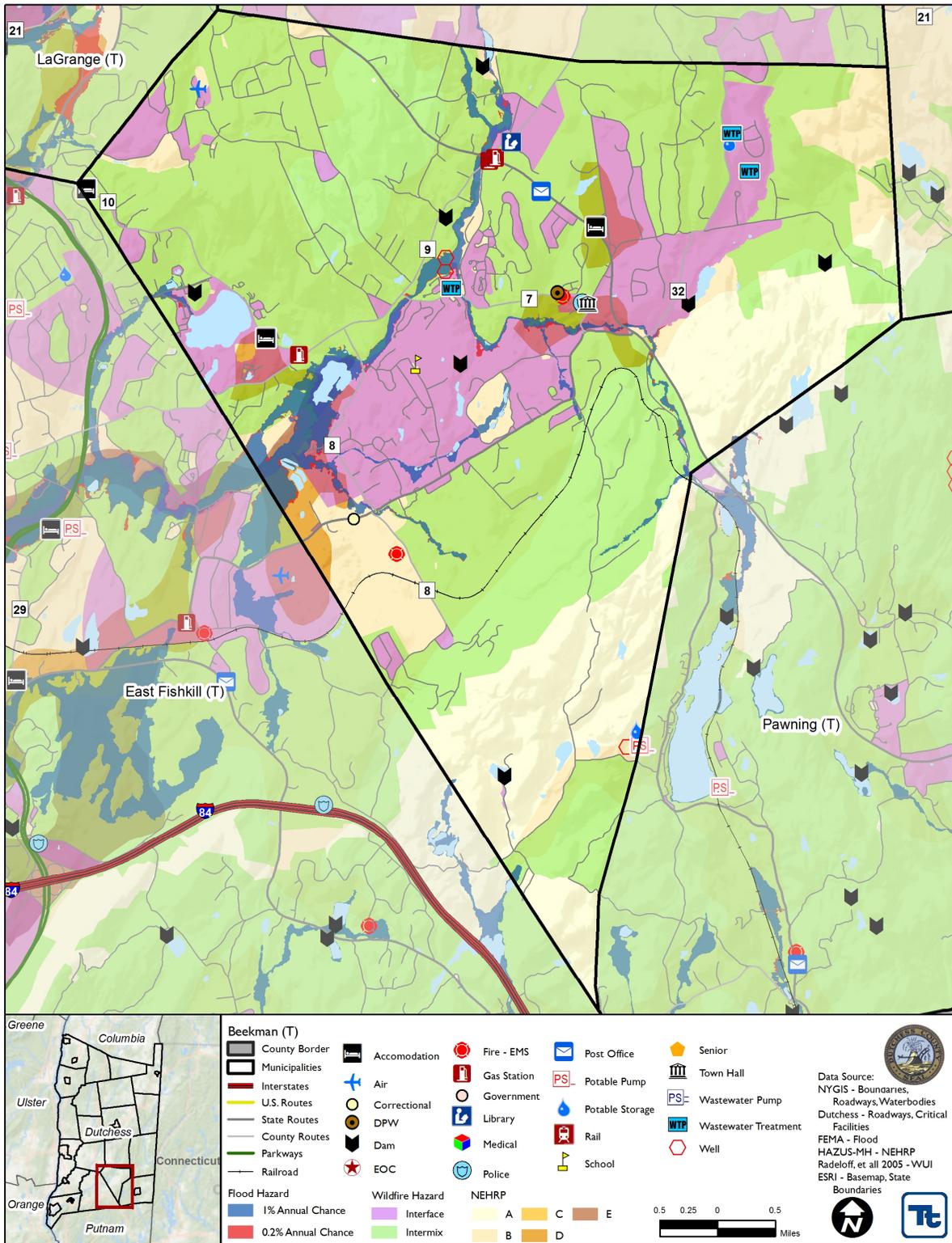
### **9.5.9 Additional Comments**

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None at this time.



Figure 9.5-1. Town of Beekman Hazard Area Extent and Location Map





Action Number:

1

Mitigation Action Name:

Wildfire Prevention (Education)

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Wildfire
<b>Specific problem being mitigated:</b>	Wildfires on Appalachian Trail
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	Option 1 – Wildfire Prevention (Education) Option 2 – Do nothing; problem continues/worsens (as well as impacts local tourism economy)
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	The Town of Beekman is looking to implement public awareness with common sense safety practices. The Fire Department (at an open house at local school) can offer general precautions on fire safety in forests. If residents are properly educated on fire precautions, the benefits will be huge. The acres of burnt forest will be non-existent.  Additionally, there are a lot of structures nearby. This could damage much of the forests and woodlands.
<b>Mitigation Action Type</b>	EAP
<b>Goals Met</b>	1, 2, 3, 4
<b>Applies to existing and or new development, or not applicable</b>	Existing and new
<b>Benefits (losses avoided)</b>	Lessens risk of wildfires caused by human negligence/carelessness. Additionally reduces risk of injury/deaths and property damage as residents will be more aware of how to safely respond.
<b>Estimated Cost</b>	Medium (Materials can be provided online and in library)
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Fire Instruction Officer, Town of Beekman Fire Department
<b>Local Planning Mechanism</b>	N/A
<b>Potential Funding Sources</b>	NYSERDA, FEMA PDM, FEMA Fire Management Assistance Grant Program, FEMA HMGP
<b>Timeline for Completion</b>	5 years; then ongoing
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



Action Number:

1

Mitigation Action Name:

Wildfire Prevention (Education)

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Decreases risk of residents/visitors starting fire and being trapped in forests
Property Protection	1	Decreases risk of wildfires starting and spreading to local property
Cost-Effectiveness	1	Education programs have a lower cost and wider benefit (lower risk of wildfire happening)
Technical	1	Fire Instruction Officer is very knowledgeable
Political	0	
Legal	0	
Fiscal	0	Multiple grant/funding options
Environmental	1	Promotes healthier forests
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	0	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	8	
<b>Priority (Tier I, II or III)</b>	II	



Action Number:

2

Mitigation Action Name:

Wildfire Breaks

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Wildfire
<b>Specific problem being mitigated:</b>	Wildfires on Appalachian Trail and in Surrounding Forests near Wildland-Urban Interface (WUI)
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	Option 1 – Install fire breaks and remove woody/flammable vegetation near the WUI to reduce risk of fires spreading Option 2 – Do nothing; problem continues/worsens (as well as impacts local tourism economy)
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	The Town of Beekman is looking to install fire breaks and remove woody and flammable vegetation in the WUI, especially where structures are near forested areas. There are a lot of structures in this area. Uncontrolled fires could damage much of the forests and woodlands in addition to causing property damage.
<b>Mitigation Action Type</b>	SIP
<b>Goals Met</b>	1, 2, 3, 4
<b>Applies to existing and or new development, or not applicable</b>	New
<b>Benefits (losses avoided)</b>	Reduces likelihood of wildfires spreading from forested areas to properties/structures in Town and vice versa.
<b>Estimated Cost</b>	Medium
<b>Priority*</b>	Medium
Plan for Implementation	
<b>Responsible Organization</b>	Town of Beekman Fire Department
<b>Local Planning Mechanism</b>	N/A
<b>Potential Funding Sources</b>	NYSERDA, FEMA PDM, FEMA Fire Management Assistance Grant Program, FEMA HMGP
<b>Timeline for Completion</b>	Short Term
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:



Action Number:

2

Mitigation Action Name:

Wildfire Breaks

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Decreases risk of wildfires and thus decreases risk of death/injury
Property Protection	1	Decreases risk of fires starting and then spreading to local properties (from properties to woodlands)
Cost-Effectiveness	1	
Technical	0	
Political	0	
Legal	0	
Fiscal	1	Multiple grant/funding options
Environmental	1	Promotes healthier forests
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	Town Supervisor
Other Community Objectives	0	
<b>Total</b>	9	
<b>Priority (Tier I, II or III)</b>	II	