



9.21 TOWN OF UNION VALE

This section presents the jurisdictional annex for the Town of Union Vale.

9.21.1 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
Lisette Hitsman, Town Supervisor 507 North Clove Road, Verbank, NY 12585 (845) 724-5600 supervisor@unionvaleny.us	John Welsh, Councilman 43 Cutler Lane, LaGrangeville, NY 12540 (845) 724-5600

9.21.2 Municipal Profile

The Town of Union Vale is in the south-central part of Dutchess County, located about 10 miles east of the City of Poughkeepsie and 60 miles from New York City. The population was 4,877 at the 2010 census.

According to the United States Census Bureau, the town has a total area of 37.8 square miles (98 km²), of which, 37.7 square miles (98 km²) of it is land and 0.1 square miles (0.26 km²) of it (0.32%) is water. The highest point is atop Clove Mountain, at 1400 feet above sea level. New York State Route 55 runs through the southwestern part of the town. (https://en.wikipedia.org/wiki/Union_Vale,_New_York)

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 9.21-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Address and Block/Lot	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to Present					
Millbrook Hunt Estates sub-division	Res.	14	Theresa Ct.	0	completed
Known or Anticipated Development in the Next Five (5) Years					
Town of Union Vale owned	Mixed use	TBD	135400-6660-00-638053-0000	0	Being marketed
Cross orchards	Commercial	TBD	135400-6660-00-206503-0000	Poss. Flood zone	Being marketed

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

9.21.3 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, 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 9.21-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
December 2010	Winter snow storm	1957 DR NY	Yes	Labor for overtime and re-imbursement form O.E.M.
2011	Wide spread flooding	N/A	N/A	Flooding from Storms Irene / Lee Wisseman Rd bridge and stone abutment re-build pictures attached
2012	Flooding	N/A	N/A	Bridge re-construction " On-The-Green Rd

9.21.4 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 Union Vale. 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 Union Vale.

Table 9.21-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Coastal Storm	100-year MRP: \$1,530,495.00 500-year MRP: 11371088 Annualized: \$137,152.00	Frequent	48	High
Drought	Damage estimate not available	Frequent	42	High
Earthquake	100-Year GBS: \$0 500-Year GBS: \$250,440 2,500-Year GBS: \$3,757,008	Occasional	24	Medium
Extreme Temperature	Damage estimate not available	Frequent	21	Medium
Flood	1% Annual Chance: \$5,907,819	Frequent	36	High
Severe Storm	100-Year MRP: \$1,530,495 500-year MRP: \$11,371,088 Annualized: \$137,152	Frequent	48	High
Winter Storm	1% GBS: \$13,117,187 5% GBS: \$65,585,934	Frequent	51	High
Wildfire	Estimated Value in the WUI: \$1,806,888,014	Frequent	48	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 Union Vale.

Table 9.21-4. 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 Union Vale	7	0	\$0.00	0	0	1

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 includes 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 9.21-5. 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⁾
None identified.						

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:

- Private driveways with undersized culverts are one of the largest problems the Town has with localized flood issues, and the fact that emergency vehicles may not be able to pass over damaged private crossings for safety reasons. The Town has limited ability to regulate such issues on private





property. While the Town has notified such property owners and some have addressed the problem, there are still some 7-8 that have failed to address this vulnerability and concern.

9.21.5 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 Union Vale.

Table 9.21-6. 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.)
Planning Capability				
Master Plan	X	LOCAL	T/B	Sect. 192 local law
Capital Improvements Plan				
Floodplain Management / Basin Plan	X	LOCAL	P/B	SECT. 135
Stormwater Management Plan	X	LOCAL	CEO	Sect. 122 / SWWP 210-63
Open Space Plan	X	LOCAL	P/B	Sect. 192 sub-div
Stream Corridor Management Plan	X	LOCAL	P/B	Sect 192
Watershed Management or Protection Plan	X	LOCAL	P/B	Sect 192
Economic Development Plan				
Comprehensive Emergency Management Plan				
Emergency Operation Plan	X	LOCAL	C.E.O	Dam E.A.P. local dam
Post-Disaster Recovery Plan				
Transportation Plan				
Strategic Recovery Planning Report				
Other Plans:				
Regulatory Capability				
Building Code	Yes	State & Local	C.E.O.	Sect 105
Zoning Ordinance	YES	LOCAL	C.E.O.	Sect. 210
Subdivision Ordinance	X	LOCAL	P/B	Sect 192
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	C.E.O.	Sect 210
NFIP: Cumulative Substantial Damages				



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.)
NFIP: Freeboard	Yes	State, Local	C.E.O.	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances				
Site Plan Review Requirements	X	P/B		
Stormwater Management Ordinance	X	C.E.O.		Sect. 122 / SWWP 210-63
Municipal Separate Storm Sewer System (MS4)	X	DPW		
Natural Hazard Ordinance				
Post-Disaster Recovery Ordinance				
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 Union Vale.

Table 9.21-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Y	LOCAL
Mitigation Planning Committee	N	
Environmental Board/Commission	Y	CONSERVATION ADVISORY COUNCIL
Open Space Board/Committee	Y	P/B
Economic Development Commission/Committee	N	
Maintenance Programs to Reduce Risk	N	
Mutual Aid Agreements	N	
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	P.E. / PLANNING CONSULTANT
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	SAME
Planners or engineers with an understanding of natural hazards	Y	SAME
NFIP Floodplain Administrator	Yes*	Code Enforcement Office (per Town Code 133-10) Currently George A. Kolb Jr.
Surveyor(s)	N	
Personnel skilled or trained in GIS and/or HAZUS-MH applications	N	
Scientist familiar with natural hazards	N	



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Emergency Manager	N	
Grant Writer(s)	N	
Staff with expertise or training in benefit/cost analysis	N	
Professionals trained in conducting damage assessments	Y	C.E.O. / TOWN P.E.

Fiscal Capability

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

Table 9.21-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community development Block Grants (CDBG, CDBG-DR)	YES DPW
Capital Improvements Project Funding	YES TOWN BOARD / SUPERVISOR
Authority to Levy Taxes for specific purposes	YES T/B
User fees for water, sewer, gas or electric service	NO
Impact Fees for homebuyers or developers of new development/homes	YES T/B formed STORM WATER DISTRICTS
Stormwater Utility Fee	YES /Districts
Incur debt through general obligation bonds	YES
Incur debt through special tax bonds	YES
Incur debt through private activity bonds	NO
Withhold public expenditures in hazard-prone areas	NO
Other Federal or State Funding Programs	
Open Space Acquisition Funding Programs	NO
Other	

Community Classifications

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

Table 9.21-9. 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)	YES	CLASS 4	3/11/2011
Public Protection (ISO Fire Protection Classes 1 to 10)	YES	NOT AVAILABLE	3/11/2011
Storm Ready	NO		
Firewise	NO		
Disaster/Safety Programs in/for Schools	YES		
Organizations with Mitigation Focus (advocacy group, non-government)	NO		
Public Education Program/Outreach (through website, social media)	YES		



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
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 Union Vale’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.21-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, please indicate your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability	X (LIMITED STAFF)		
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

NFIP Floodplain Administrator (FPA): George A. Kolb Jr., Code Enforcement Officer



Flood Vulnerability Summary

Since 1978, no NFIP claims have been paid. As of 12/31/2014, there are no Repetitive Loss or Severe Repetitive Loss properties in the community. The Town characterizes their flood vulnerability to be low relative to other Dutchess County communities.

Resources

The Town does not maintain a list of flood vulnerable properties. Approximately 10 residential parcels have been damaged in prior flood events. The Town has no estimate of the number of properties who may be interested in mitigation. Any properties who have performed mitigation to date would have been done through insurance and private funds.

Compliance History

The Town is in good-standing in the NFIP with no outstanding violations. The most recent Community Assistance Visit (CAV) was in 2014.

Regulatory

The Town's floodplain ordinance meets the minimum Federal and State requirements. Many of our parcels fall into S.U.P. approvals from our P/B for construction and these issues are reviewed along with comments from our office.

All review of building applications, grading and record keeping we provide information regarding flood plain areas and designation to home owners. Floodplain management is an ancillary function for the CEO, however is supported by Town's contract engineer and the Town Planning Board and Zoning Board.

The NFIP FPA feels he is adequately supported and trained to fulfill his role, however would attend continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators

The Town of Union Vale does not participate in 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.

Regulatory and Enforcement

Flood Damage Prevention Chapter 133: 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.

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.

Local Ordinances: The Town is considering the development of an ordinance to better regulate the construction and reconstruction of "bridges" (culverts under driveways) on private property which have a history of being damaged by local flooding.

Fiscal

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

Town Website: The Town maintains a municipal website that is regularly updated and provides information to residents on their stormwater management program and activities.



9.21.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The Town of Union Vale has no prior mitigation strategy.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

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

- The Town completed a major culvert/stream crossing project three years ago on Wissman Road.

Proposed Hazard Mitigation Initiatives for the Plan

The Town of Union Vale 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 9.21-11 summarizes the comprehensive-range of specific mitigation initiatives the Town of Union Vale 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. 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 9.21-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan.



Table 9.21-11. 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
UV-1	Route 55 Bridge Projects: Work with NYS DOT on the two major bridge projects planned in the Town in 2016 (State Route 55) to assure that all floodplain management regulations, including the issuance of Town of Union Vale Floodplain Development Permits, are addressed. These two projects have the potential to provide positive flood benefits for upstream properties, however may exacerbate flooding on downstream properties (generally in the Town of LaGrange).											
	See above.	Existing	Flood; Severe Storm	2, 3, 7	George A. Kolb Jr., Code Enforcement Officer; with support from Town of LaGrange	Reduced vulnerability of localized flooding; damage to transportation infrastructure	Low	Town Budget	NYS DOT projects slated for 2016	High	LPR, SIP, NSP	PR, NR
UV-2	Address Continue to petition and work with property owners whose driveways have undersized culvert/bridges. These contribute to localized flood issues, and the fact that emergency vehicles may not be able to pass over damaged private crossings for safety reasons. The Town has limited ability to regulate such issues on private property. While the Town has notified such property owners and some have addressed the problem, however there are still some 7-8 that have failed to address this vulnerability and concern. Further, the Town shall be working towards upgrading their ordinances so that they have more regulatory and enforcement control over these problems.											
	See above.	Existing	Flood; Severe Storm	1, 2, 3	George A. Kolb Jr., Code Enforcement Officer; working with Town Board	Reduced vulnerability of localized flooding; potential life safety	Low – for Town	Town Budget	Ongoing; Short Term for ordinance upgrade considerations	High	LPR, EAP, SIP	PR, PI, ES

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
- 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:

- FMA Flood Mitigation Assistance Grant Program
- HMGF 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:

- Short 1 to 5 years
- Long Term 5 years or greater
- OG On-going program
- DOF Depending on funding

Costs:

Benefits:





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.

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

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.



Table 9.8-12. 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
UV-1	Route 55 Bridge Projects	0	1	1	1	1	0	1	1	1	1	1	1	1	1	12	High
UV-2	Address undersized private culvert-bridges	1	1	1	1	1	0	1	0	1	1	1	1	1	1	12	High

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



9.21.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.21.8 Hazard Area Extent and Location

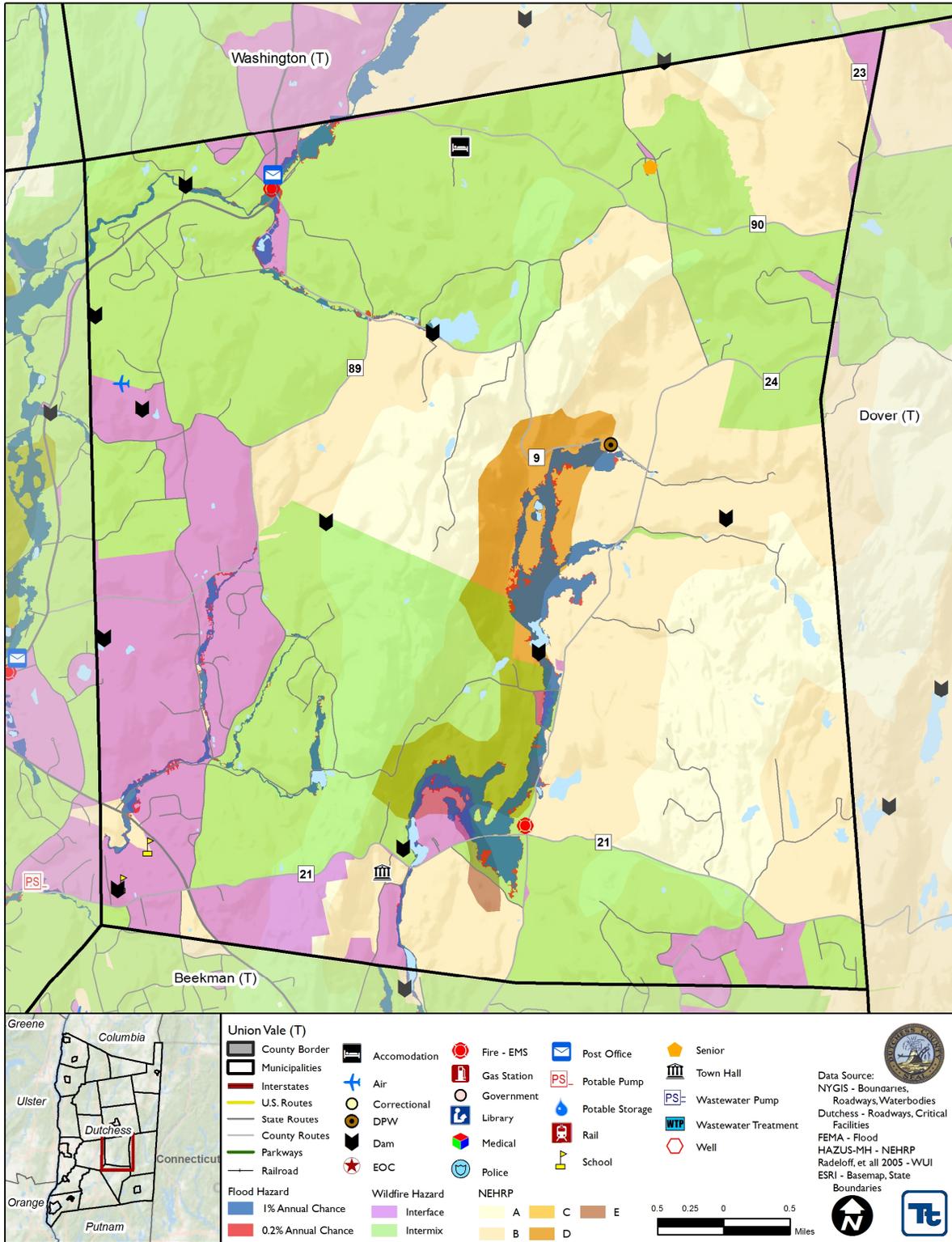
Hazard area extent and location maps have been generated for the Town of Union Vale that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.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

9.21.9 Additional Comments

None at this time.



Figure 9.21-1. Town of Union Vale Hazard Area Extent and Location Map 1





Action Number:

UV-1

Mitigation Action Name:

Route 55 Bridge Projects

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	NY State Route 55 runs through the Town of Union Vale. Two major bridge projects along this road are planned in 2016. These two projects have the potential to provide positive flood benefits for upstream properties, however may exacerbate flooding on downstream properties (generally in the Town of LaGrange).
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	The only action that the Town can take to assure that flooding concerns are being addressed is to work directly with NYS DOT and the Town of LaGrange to understand and address flood concerns associated with the project, and to exercise the Town's authority to manage development within their floodplains.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Work with NYS DOT and the Town of LaGrange on the two major bridge projects planned in the Town in 2016 (State Route 55) to assure that all floodplain management regulations, including the issuance of Town of Union Vale Floodplain Development Permits, are addressed.
Mitigation Action Type	LPR, SIP, NSP
Goals Met	2, 3, 7
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Potential reduction of flood risk for upstream properties; improved capabilities to manage the potential for increased downstream flood risk.
Estimated Cost	Low – for Town coordination and floodplain management activities
Priority*	High
Plan for Implementation	
Responsible Organization	George A. Kolb Jr., Code Enforcement Officer
Local Planning Mechanism	Floodplain Management; Flood Damage Protection Ordinance
Potential Funding Sources	Local Budget for coordination and floodplain management activities
Timeline for Completion	2106
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number: UV-1
Mitigation Action Name: Route 55 Bridge Projects

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	No significant life safety issues associated with this project
Property Protection	1	May have impacts on flood risk to private property
Cost-Effectiveness	1	Low cost for potential long-term benefits
Technical	1	Town has the technical capabilities to perform coordination and floodplain management functions
Political	1	Supported politically
Legal	0	Town of legal authority to manage their floodplains, but construction is being done by NYS DOT
Fiscal	1	Town can fund their coordination and floodplain management activities
Environmental	1	Protection of stream channels and floodplains
Social	1	Benefits all social segments
Administrative	1	Town has the administrative capabilities to perform coordination and floodplain management functions
Multi-Hazard	1	
Timeline	1	2016
Agency Champion	1	Code Enforcement
Other Community Objectives	1	Long-term risk reduction/management and sustainability
Total	12	
Priority	High	



Action Number:

UV-2

Mitigation Action Name:

Address undersized private culvert-bridges

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	Private property owners whose driveways have undersized culvert/bridges. These contribute to localized flood issues, and the fact that emergency vehicles may not be able to pass over damaged private crossings for safety reasons. The Town has limited ability to regulate such issues on private property. While the Town has notified such property owners and some have addressed the problem, however there are still some 7-8 that have failed to address this vulnerability and concern.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	The Town currently has limited authority to require private property owners to mitigate these structures, and no authority or resources to perform these mitigations. Eminent domain is not considered a viable approach.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Continue to petition and work with property owners whose driveways have undersized culvert/bridges. Further, the Town shall be working towards upgrading their ordinances so that they have more regulatory and enforcement control over these problems.
Mitigation Action Type	LPR, EAP, SIP
Goals Met	1, 2, 3
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Reduced risk of private property damage to flooding. Possible life-safety benefits with regard to emergency access to private property.
Estimated Cost	Low – for Town outreach and adopting higher regulatory standards
Priority*	High
Plan for Implementation	
Responsible Organization	George A. Kolb Jr., Code Enforcement Officer; working with Town Board
Local Planning Mechanism	Floodplain Management; Flood Damage Protection Ordinance; Town Code
Potential Funding Sources	Local Budget
Timeline for Completion	Short-term – outreach to private property owners is on-going
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:

UV-2

Mitigation Action Name:

Address undersized private culvert-bridges

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Possible life-safety benefits with regard to emergency access to private property.
Property Protection	1	Reduced risk of private property damage to flooding.
Cost-Effectiveness	1	Low cost to town for potential long-term benefits
Technical	1	Town has the technical capabilities to perform outreach
Political	1	Supported politically
Legal	0	Town currently has limited authority over private property, but can enhance their regulatory capabilities
Fiscal	1	Town can fund through existing budget
Environmental	0	Limited environmental benefit or impact
Social	1	
Administrative	1	Town has the administrative capabilities to perform outreach and adopt higher regulatory standards
Multi-Hazard	1	
Timeline	1	Short-term – outreach to private property owners is on-going
Agency Champion	1	Code Enforcement and Town Board
Other Community Objectives	1	Enhanced regulatory capabilities to control flood risk and public safety
Total	12	
Priority	High	