



9.11 VILLAGE OF FORT EDWARD

This section presents the jurisdictional annex for the Village of Fort Edward.

9.11.1 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
Matthew Traver, Mayor 11 Broadway, Fort Edward, NY (518) 747-4023 mayor@villageoffortedward.com	Bryan Etu, Highway Superintendent 11 Broadway, Fort Edward, NY (518) 747-6432 highway@villageoffortedward.com

9.11.2 Municipal Profile

The Village of Fort Edwards is in western Washington County, within the Town of Fort Edward, and is on the opposite shore of the Hudson River from the town of Moreau in Saratoga County.

The village has a total area of 1.9 square miles of which only 0.1 square miles is water. The Champlain Canal, which links the Hudson River to the south end of Lake Champlain, joins the Hudson River south of the village.

According to the 2010 Census, the community's population was 3,375.

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.

Table 9.11-1. 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
Recent Development from 2010 to present					
GE Dewatering Facility	Industrial	123 acres	381 Broadway	None	Being dismantled
Hudson Headwaters	Public	1	48 East Street	None	Open
Historic Train Station	Commercial	2	73 East Street	None	Open
Canal Street Marketplace	Public	1	11 Canal Street	None	Open
Water, Sewer and Stormwater projects	All	Infrastructure	Phase I: (water and half sewer) Bascom Drive, Griffin Ave, Marion St, Beverly St., Pickett Dr. Phase II/III (Water half storm) Factory St, Culver St, McIntyre St, Wing St, Taylor St Phase IV: Complete, Liberty St, Keating Ave, Washington St,	None	Complete



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
			Spruce St		
Known or Anticipated Development in the Next Five (5) Years					
Redevelopment of the dewatering facility	Industrial	123 acres	381 Broadway (163.15-1-14, 163.19-1-1)	None	Planning and DEIS Engineering are underway
Water, Sewer and Stormwater projects	Residential	Infrastructure	McCea St, Browns Ln, Bright St, River St, Teffs Ln	None	Planning and Engineering are underway
Oak Ridge Subdivision Drifting Ridge Tori Trice William Farm	Residential	180	Oak Ridge Subdivision 60 home, Drifting Ridge 60 home, Tori Trice 10-12 more lots, and William farm 163.13.-1-1.1 up to 50 units	None	Applications under review

Note: Only location-specific hazard zones or vulnerabilities identified.

9.11.3 Natural Hazard Event History Specific to the Municipality

Washington 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 9.11-2. Hazard Event History

Dates of Event	Event Type (FEMA Disaster Declaration if applicable)	Washington County Designated?	Summary of Damages/Losses
April 28-30, 2011	Flooding DR-1993	No	The Indian River near Hudson River at Fort Edward stream gage recorded new period-of-record maximum discharges during this event. Flooding damaged several buildings in the Village. Flooding was reported on Satterlee Lane, Montgomery Street, and on Broadway. The first floor of a house on Riverside St on the shoreline of the Hudson River was inundated. Residents in the Village of Fort Edward were evacuated due to dangerous conditions. Numerous NFIP claims were issued as a result of the flood damage, and FEMA assisted with the recovery.

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency

DR Major Disaster Declaration (FEMA)

9.11.4 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 Village of Fort Edward. For additional vulnerability information relevant to this jurisdiction, refer to





Section 5.0. Refer to Figure 9.11-1 later in this annex for hazard vulnerable areas located in the Village of Fort Edward.

Natural Hazard Risk/Vulnerability Risk Ranking

As discussed in Section 5.3 (Hazard Ranking), each participating town or village may have differing degrees of risk exposure and vulnerability compared to Washington County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Village of Fort Edward. Table 9.11-12 provides proposed mitigation initiatives for the high ranked hazards.

Table 9.11-3. 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
Earthquake	100-Year GBS: \$9,062,247 500-Year GBS: \$118,968,187 2,500-Year GBS: \$866,945,901	Occasional	32	High
Flood	Damage estimate not available.	Frequent	30	Medium
Severe Weather	100-Year MRP: \$167,978 500-year MRP: \$2,248,401 Annualized: \$13,957	Frequent	48	High
Severe Winter Weather	1% GBS: \$7,980,080 5% GBS: \$39,900,398	Frequent	51	High
Wildfire	Estimated Value in the WUI Hazard Areas: \$1,284,730,888	Frequent	48	High

Notes:

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.
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 value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.
- f. Damage estimate for flood unavailable due to lack of digital floodplain data for Washington County.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Fort Edward.

Table 9.11-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)
Fort Edward (V)	4	2	\$9,953	0	0

Source: FEMA, 2016

Note (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA and are current as of April 30, 2016 and are summarized by Community Name. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents claims closed by 4/30/2016.

Note (2) Total building and content losses from the claims file provided by FEMA Region 2.

Note (3) The policies inside and outside of the flood zones are unavailable due to lack of digital floodplain for Washington County.





Note (4) 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.

Critical Facilities

At the time of this HMP Update, digitized flood maps for Washington County are unavailable. In order to provide some level of beneficial analysis, a desktop analysis was performed to identify critical facilities located within the floodplain (refer to Section 5.1 [Methodology and Tools] for details). The following table identifies critical facilities located within the municipality and their exposure, if any, to the possible floodplain. This information is a resource for the municipality to determine if flood mitigation actions are appropriate based on historical events and proximity of the facility to a water body. At the time of this 2018 HMP Update, the municipality did not identify any actions associated with these facilities.

The Village of Fort Edward understands the limitation of the map data and once the updated maps are available, the municipality will work with Washington County to determine which critical facilities are located within the 1% and 0.2% annual chance flood zones. Once identified, the municipality will work with the property owners and develop mitigation actions for each of the critical facilities, ensuring they will be protected to the 500-year (or worst-case scenario) level.

Table 9.11-5. Potential Flood Losses to Critical Facilities

Table with 3 columns: Name, Type, Potential Flood Exposure. Rows include Boces - St Joseph's School, Champlain Canal Lock 7, Fort Edward Court, Fort Edward Fire Department - Station 1, Fort Edward Post Office, Fort Edward Village Police, Glens Falls National Bank, Town/Village of Fort Edward, and Warren Washington ARC (Wing).

Source: Washington County; NYS GIS Clearinghouse

Other Vulnerabilities Identified

The municipality has identified the following vulnerabilities within their community:

- The Village of Fort Edward has undergone four evacuations in the past 20 years for chemical leaks on railcars, derailments, exploding sewer lines from a fuel spill, and the flooding in April 2011.

9.11.5 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 Village of Fort Edward.

Table 9.11-6. 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	Yes	Local	Boards	2009
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	Yes	Local	Boards, DPW	2016 - The Village is a "Regulated Small MS4" community
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Local Waterfront Revitalization Plan	Yes	Local	Planning and Zoning Boards	2009 - focuses on Rogers Island and potential development
Economic Development Plan	Yes	Local	Planning and Zoning Boards	Yes, SEQR is required for all commercial and industrial development
Comprehensive Emergency Management Plan	No	-	-	-
Emergency Response/Operations Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State, Local	Code Enforcement Officer	New York State Uniform Fire Prevention and Building Code and State Energy Conservation Construction Code
Zoning Ordinance	Yes	Local	Zoning	Local Law #2 Of 1986
Subdivision Ordinance	Yes	Local	Planning	Subdivision of Land, Chapter 77, Local Law 5 of 2009
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Building Inspector	Flood Damage Prevention, Chapter 52
NFIP: Freeboard	Yes	State, Local	Building Inspector	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
NFIP: Cumulative Substantial Damages	No	-	-	-
Growth Management Ordinances	No	-	-	-



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Site Plan Review Requirements	Yes	Local	Planning	2012
Stormwater Management Ordinance	Yes	Local	DPW Superintendent	Stormwater Management and Erosion & Sediment Control, adopted 2007/ Village of Fort Edward Stormwater Regulation
Municipal Separate Storm Sewer System (MS4)	Yes	State, Local	DPW	2016
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	Planning	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	Yes	State, Local	Planning and Zoning Boards	-

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Village of Fort Edward.

Table 9.11-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	DPW, Police
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	No	Consulting
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Code
Planners or engineers with an understanding of natural hazards	No	Consulting
NFIP Floodplain Administrator (FPA)	Yes	Building Inspector
Surveyor(s)	No	Consultants
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Water
Scientist familiar with natural hazards	No	-
Emergency Manager	No	-



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Grant writer(s)	No	Consultants
Staff with expertise or training in benefit/cost analysis	No	Consultants
Professionals trained in conducting damage assessments	No	Consultants

Fiscal Capability

The table below summarizes financial resources available to the Village of Fort Edward.

Table 9.11-8. 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	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	Yes
Other	Yes

Community Classifications

The table below summarizes classifications for community program available to the Village of Fort Edward.

Table 9.11-9. 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	Not Available	Not Available
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Not Available	Not Available
NYSDEC Climate Smart Community	No		
Storm Ready	No	-	-
Firewise	No	-	-
Disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	Yes	The Village is a member of NYCOM which gives general support to municipal officials in each state, serving as a way to improve local government by facilitating cooperation, the exchange of	-



Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
		information and ideas on best practices, and the discussion of new solutions to common municipal problems.	
Public education program/outreach (through website, social media)	Yes	Municipal website and social media	-
Public-Private Partnerships	No	-	-

Note:

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

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 website at: <https://www.isomitigation.com/bcegs/>
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- The National Weather Service Storm Ready website at <https://www.weather.gov/stormready/>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

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

Table 9.11-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and regulatory capability		X	
Administrative and technical capability		X	
Fiscal capability		X	
Community political capability			X
Community resiliency capability			X
Capability to integrate mitigation into municipal			X





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

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

Chapter 52 of the municipal code identifies the building inspector as the appointed floodplain administrator; however, the village Clerk/Treasurer, Liann Lyon, provided the following information.

Flood Vulnerability Summary

The Village of Fort Edward does not maintain lists/inventories of properties that have been damaged by floods. No structures were damaged during Irene or other recent flood events. There is currently no interest within the Village regarding mitigation (elevation or acquisition) of properties.

Resources

Floodplain administration for the Village is performed by the Village’s building inspector. The FPA is responsible for provided building permit reviews. The Village did not indicate any specific educational or outreach programs to residents regarding flooding or floodplain management.

Compliance History

According to the most recent FEMA Community Status Book Report, the community is in good standing with the NFIP. Per NYS DEC, the Village’s last compliance visit was September 3, 1991.

Regulatory

Chapter 52 of the municipal code is the flood damage prevention ordinance. The ordinance meets, but does not exceed, the FEMA and State minimum requirements. Other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements in the Village include planning board activities, site plan review, special use permits and subdivision process, as well as the variance process.

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

NOTE: The village code book has been updated over the last several years. These local laws have not yet been incorporated into the code book. The village is in the process of reviewing and updating this book. Contact the village office to request updated information.

Emergency Management: The Village is capable and experienced when it comes to emergency management. Village Police and Fire Departments worked swiftly with the community leaders in the wake of previous





hazard events to formulate the plans necessary to mitigate the potential risks to our residents and business owners. When available, safety classes and emergency management classes are attended by any employee available.

Land Use Planning: The Village of Fort Edward has a Planning Board and Zoning Board of Appeals which review all applications for development and consider natural hazard risk areas in their review. The planning board plays a crucial role in the proper planning and development of the community. Decisions made can have a great impact upon both the present and future appearance of the municipality and the quality of life of its residents. Both the Planning Board and Zoning Board of Appeals utilize SEQR and strong Village codes to determine whether the project is okay as designed by the applicant or if action must be taken to mitigate a potential impact. All Village Boards are served by professional legal and engineering services, and the Village contracts for planning services, as needed.

The powers most commonly conferred upon this planning board include: subdivision review, site plan review and issuance of special permits. Many development activities require additional levels of environmental review, specifically NYS SEQR and Federal NEPA requirements. Natural Hazard identification and mitigation recommendations are incorporated, where necessary, into proposed projects.

Village of Fort Edward 2006 Master Plan: The Village of Fort Edward 2006 Master Plan identifies and establishes the community's goals, objectives, and recommendations in order to guide future growth, development, and/or preservation. The plan identifies sensitive environmental areas including floodplains as well as specific environmental issues facing the village. In the plan's goals, the Village identifies the need to develop lasting and affordable solutions for community water and wastewater needs, and ensure the protection of other natural resources. Some of the relevant goals, objectives, and recommendations in the Master Plan include the following:

- Continue to deliver emergency services by supporting and investing the necessary resources to the Village's Fire, Police, and Rescue Squads in order to maintain a high level of public safety and security.
- Improve and enhance the storm drainage system throughout the Village.
- Review and update where necessary the existing Village Laws, Codes and Regulations. Consider the feasibility of publishing the Code with General Code Publishers.
- Enforce the building code to ensure the structural integrity of buildings in the Village. Hire a full time Code Enforcement Officer/Building Inspector.

The plan was updated in 2009, but does not refer to a local or Countywide Hazard Mitigation Plan.

Village of Fort Edward Stormwater Management Plan: The Village of Fort Edward is an MS4 Regulated Community, and has a formal Stormwater Management Plan. This plan specifies projects/actions/initiatives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding.

Regulatory and Enforcement

Construction Codes, Uniform: The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The Village complies with New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code). The Village Building and Codes Department is responsible for issuing building permits, conducting code inspections, and coordinating meetings of the Planning Board and Zoning Board of Appeals. This department will conduct building consultations and site visits for zoning and planning application assistance.



Flood Damage Prevention: The Village Flood Damage Prevention Law meets the minimum Federal and State NFIP regulatory requirements. The purpose of the Village's Flood Damage Prevention Law is to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in the Village.

Site Plan Review, Local Law No. 6 of 2009: The purpose of the site plan review in the Village is to allow the proper integration of uses into the community based on their characteristics, or the special characteristics of the area in which they are to be located; to allow the Village to accommodate growth without creating an adverse effect on the Village and its citizens and taxpayers; to protect the health, safety and welfare of the citizens; and to promote consistency with the goals and objectives of the Village of Fort Edward Master Plan.

Sewers: The Village abides by the County-wide Sanitary Code, which protects and regulates its sewage collection and treatment facilities as a matter of public health and environmental safety. It seeks to prohibit the introduction of stormwaters, surface, or sub-surface waters into sanitary sewers and to control the quantity and quality of wastes in the sewage system.

The Washington County Wastewater Treatment Facility is located in the Village of Fort Edward and is a combined sewer/stormwater system with activated sludge, secondary treatment of wastewater. The facility has a permitted rolling capacity to treat 2.5 million gallons of wastewater per day and is presently ranging in capacity from 1.3 to 1.5 MGD during dry weather months and 2.0 to 2.46 MGD during wet weather months. According to a compliance plan put forth by the NYSDEC the Washington County Sewer District is responsible for resolving inflow and infiltrations (I & I) issues within their existing sewer system.

Stormwater Management and Erosion and Sediment Control, Local Law #3 of 2007: The Village's stormwater management chapter establishes minimum stormwater management requirements and controls. It seeks to mediate the adverse impacts of stormwater runoff, sedimentation, and erosion caused by existing drainage systems, and to minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, and other adverse effects to stream function. It also serves to control the degradation of water quality in the Village.

Subdivision of Land, Chapter 77, Local Law 5 of 2009: The Village Planning Board is tasked with subdivision permitting and site plan review. The Planning Board pays special attention to ensure that developments meet the requirements of the stormwater management and erosion and sediment control provisions set by NYS DEC, and mitigate the issues associated with flood, fire, or other natural hazards.

Zoning Chapter 100: The Village of Fort Edward has an adopted zoning ordinance that is used to promote the public interest, health, comfort, convenience, safety, morals, order and public interest of the Village residents. The Village is divided into 9 districts. The Village zoning and subdivision regulations, and/or site plan review process considers natural hazard risk (e.g. the presence of floodplains, steep slopes, etc.), and requires developers to take additional actions to mitigate natural hazard risk (e.g. undergrounding utilities, stormwater detention, creating easements in areas/zones of hazard risk).

Fiscal

Operating Budget: Local funding for mitigation projects/activities are included in department budgets, rather than the village operating budget. The Village continuously invests in capital improvements for mitigation-related projects (e.g. improved stormwater management/drainage, hardening of critical facilities and infrastructure) through grants, loans, and property taxes. The Village also has strong borrowing power to fiscally support hazard mitigation projects.



Grants: The Village is partnered with several communities in the region for Stormwater Management small grants.

Education and Outreach

The Village utilizes radio, television, internet, and 911 reverse calling through the County to get important information to residents. In addition, the Village website has links to Emergency Services including Fort Edward Fire, Ambulance, and Police Department, along with other local, regional, and state agencies and organizations.

The Village is capable and experienced when it comes to emergency management. Village Police and Fire Departments worked swiftly with the community leaders in the wake of previous hazard events to formulate the plans necessary to mitigate the potential risks to our residents and business owners.

9.11.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. It should be noted that during the 2010 planning process, only general, countywide actions were identified for each municipality. The Village of Fort Edward reviewed the previous actions and selected actions they chose to carry forward as part of this plan update. 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 9.11-11. Status of Previous Mitigation Actions

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step
<p>The equipment required to excavate drainage ditches and roadways to increase culvert pipe size is not available for local municipal use unless it is contracted. Local highway departments have the expertise to do the work, but not the equipment. A suggestion was made to purchase with mitigation funding five (5) excavators for Towns with the greatest need. (MOA b/t Fort Edward, Argyle, Kingsbury)</p>	<p>N/A</p>	<p>N/A</p>	<p>None needed. Not applicable to the Village.</p>	<p>Discontinue</p>	<p>This action is not applicable to the Village; therefore, it will not be included in the 2018 HMP Update.</p>



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Fort Edward has not identified any mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2010 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Fort Edward participated in a mitigation action workshop in September 2016 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 9.11-12 summarizes the comprehensive-range of specific mitigation initiatives the Village of Fort Edward 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 9.11-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.11-12. 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
V. Fort Edward-1	Send Village staff to county and state trainings on regulatory requirements for natural hazard risk management, and encourage certification programs with respect to hazard risk management in Benefit Cost Analysis (BCA), Recovery Planning, Damage Estimates, and Debris Management.	N/A	All Hazards	1, 2, 4	Village Board, Highway Department, Code Enforcement, Planning	Medium	Low – Staff Time	Municipal Budget	Short term	Medium	LPR EAP	PI
V. Fort Edward-2	Purchase and install outdoor warning siren in the Village.	N/A	All Hazards	1, 4	Village Planning Board, Emergency Management	High	Low-Medium	FEMA HMGP, municipal budget	Short Term	Medium	EAP	PI, ES
V. Fort Edward--3	Send local staff members to attend trainings and conferences to become educated on how to efficiently run a local Floodplain Administration program.	N/A	All Hazards	2, 5	Village FPA, County	Medium	Low – Staff Time	Municipal Budget	Short Term	High	EAP	PI
V. Fort Edward-4	During the next update of the Village’s Master Plan, the Village will review the 2018 County HMP and incorporate hazard mitigation principles into the Master Plan by incorporating relevant information into each element of the plan.	New and Existing	All	All	Village Planning and Zoning Board	Medium	Low	Municipal Budget	Short Term	High	LPR, EAP	PR, PI
V. Fort Edward-5	Evaluate the stormwater system of the Village, identify areas of the system that need to be enhanced, and increase the capacity of the identified areas.	New and Existing	Flood, Severe Storm	1, 4	Village Street and Water Departments	Medium	Low to medium	Municipal Budget, CDBG, FEMA HMGP or FMA	Short Term	Medium	LPR, SIP	PR, PR

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
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued in 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued in 2015)

Timeline:

Short	1 to 5 years
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 9.11-13. 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
V. Fort Edward-1	Send Village staff to county and state trainings on regulatory requirements for natural hazard risk management, and encourage certification programs with respect to hazard risk management in Benefit Cost Analysis (BCA), Recovery Planning, Damage Estimates, and Debris Management.	1	1	1	1	0	0	0	0	0	1	1	1	0	0	7	Medium
V. Fort Edward-2	Install outdoor siren warning systems for rapid evacuation or shelter-in-place.	1	1	1	1	0	0	0	0	1	1	1	0	0	0	7	Medium
V. Fort Edward--3	Send local staff members to attend trainings and conferences to become educated on how to efficiently run a local Floodplain Administration program.	1	1	1	1	1	0	1	1	0	1	1	1	0	0	10	High
V. Fort Edward-4	During the next update of the municipal master plan, incorporate the 2017 Washington County HMP Update where appropriate	1	1	1	1	0	1	1	0	0	1	1	1	0	0	9	High
V. Fort Edward-5	Evaluate the stormwater system of the Village, identify areas of the system that need to be enhanced, and increase the capacity of the identified areas.	1	1	1	1	0	0	0	0	1	1	1	0	0	0	7	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.





9.11.7 Future Needs to Better Understand Risk/Vulnerability

None at this time.

9.11.8 Hazard Area Extent and Location

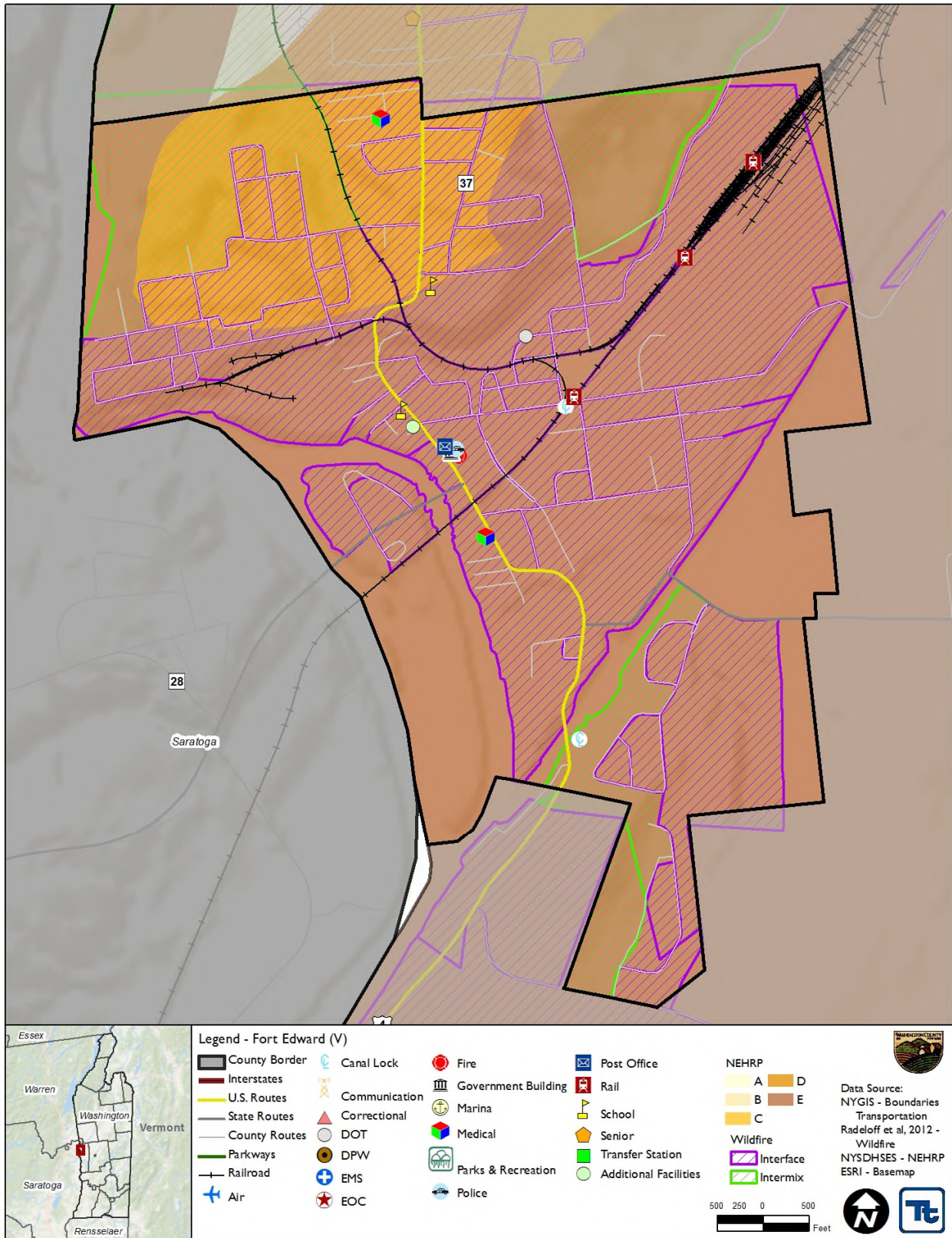
Hazard area extent and location maps have been generated for the Village of Fort Edward that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes.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

9.11.9 Additional Comments

None at this time.



Figure 9.11-1. Village of Fort Edward Hazard Area Extent and Location





Action Number:

V. Fort Edward -1

Mitigation Action Name:

Village staff trainings on natural hazard risk management.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	Staff members have not been formally trained in the fields of Benefit Cost Analysis (BCA), Recovery Planning, Damage Estimates, and Debris Management.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - Current problem persists; staff are not up-to-date on training. Hire trainers to come to Village to educate staff – costly.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Send Village staff to county and state trainings on regulatory requirements for natural hazard risk management and encourage certification programs with respect to hazard risk management in Benefit Cost Analysis (BCA), Recovery Planning, Damage Estimates, and Debris Management. Certifications and trainings for hazard risk management will allow for staff members to properly address hazards of concern and mitigation opportunities. The training will provide procedures and guidelines for conducting BCAs, recovery planning, conducting damage assessments, and manage debris during emergencies.
Mitigation Action Type	Local Plans and Regulations (LPR) Education and Awareness Programs (EAP)
Goals Met	Goal 1: Protect Life and Property Goal 2: Increase Public Awareness Goal 4: Provide for Emergency Services
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Low – Staff Time
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Board, Highway Department, Code Enforcement, Planning
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	No progress; new project



Action Number:

V. Fort Edward -1

Mitigation Action Name:

Village staff trainings on natural hazard risk management.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	
Environmental	0	No known environmental impacts
Social	0	No known social impacts
Administrative	1	Village has administrative capability to manage the work
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	



Action Number:

V. Fort Edward -2

Mitigation Action Name:

Purchase and install outdoor warning siren.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	There is currently no outdoor warning siren in the Village of Fort Edward, which leads to a lack of widespread communication in the event of an emergency. In the past 20 years, the Village has undergone evacuations for chemical leaks on railcars, derailments, exploding sewer lines, and flooding.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - Current problem persists. Purchase mobile signage for emergency warnings – not as effective and would not reach all residents.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase and install outdoor warning siren which would notify residents of imminent danger and allow them to take shelter either in their homes, place of work, or one of the identified shelters.
Mitigation Action Type	Education and Awareness Programs (EAP)
Goals Met	Goal 1: Protect Life and Property Goal 4: Provide for Emergency Services
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low-Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Planning Board, Emergency Management
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	FEMA HMGP, municipal budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	No progress; new project



Action Number:

V. Fort Edward -2

Mitigation Action Name:

Install outdoor siren warning systems for rapid evacuation or shelter-in-place.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide warning system to residents when there is a need to evacuate
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	Village needs to seek grant funding to purchase system
Environmental	0	No known environmental impacts
Social	0	No known social impacts
Administrative	1	Village has administrative capability to manage the work
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	



Action Number:

V. Fort Edward -3

Mitigation Action Name:

Send local staff members to attend trainings on Floodplain Administration.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	Staff members have not been formally trained on Floodplain Administration.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - Current problem persists; staff will not be up-to-date on floodplain administration. Hire trainers to come to Village to educate staff – costly.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Send local Floodplain Administrator to County- and State-offered trainings and to complete certification programs with respect to floodplain management and running an effective local floodplain administration program in the Village. Also provide continuing education and training to ensure code enforcement and proper inspections.
Mitigation Action Type	Education and Awareness Programs (EAP)
Goals Met	Goal 2: Increase Public Awareness Goal 5: Encourage the development and implementation of long-term, cost-effective, and resilient mitigation projects to preserve or restore the functions of natural systems.
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	Medium
Estimated Cost	Low – Staff Time
Priority*	High
Plan for Implementation	
Responsible Organization	Village FPA, County
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	No progress; new project



Action Number:

V. Fort Edward -3

Mitigation Action Name:

Send local staff members to attend trainings on Floodplain Administration.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	This action is technically feasible
Political	1	
Legal	0	
Fiscal	1	
Environmental	1	No known environmental impacts
Social	0	No known social impacts
Administrative	1	Village has administrative capability to manage the work
Multi-Hazard	1	All hazards
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	10	
Priority (H/M/L)	High	



Action Number:

V. Fort Edward -4

Mitigation Action Name:

Incorporate 2018 County HMP into update of Master Plan.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	The Village's master plan does not currently address hazard identification or risk assessment or mitigation goals in any of the elements. There is little coordination between the two current planning processes which leads to disconnect and uncertainty whether or not hazard assessment information is incorporated into future land use and other elements of the master plan.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - Current problem persists. Update the municipal master plan without incorporating HMP – current problem persists and there is lack of coordination between the HMP and master plan.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Use the results and guidance from the Hazard Mitigation Plan to steer future Master Plan updates to incorporate mitigation into the goals and objectives, as well as in future planning decisions. Coordinating the hazard mitigation plan with the master plan can provide a mechanism for implementing the mitigation goals, objectives, policies, and actions in the hazard mitigation plan beyond federal mitigation grants and recovery operations.
Mitigation Action Type	Local Plans and Regulations (LPR) Education and Awareness Programs (EAP)
Goals Met	Goal 1: Protect Life and Property Goal 2: Increase Public Awareness Goal 3: Encourage Partnerships Goal 4: Provide for Emergency Services Goal 5: Encourage the development and implementation of long-term, cost-effective, and resilient mitigation projects to preserve or restore the functions of natural systems.
Applies to existing and or new development, or not applicable	New and Existing
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Village Planning and Zoning Board
Local Planning Mechanism	Hazard Mitigation, Master Plan
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	No progress; New project



Action Number:

V. Fort Edward -4

Mitigation Action Name:

Incorporate 2018 County HMP into update of Master Plan.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	This action is technically feasible
Political	0	
Legal	1	
Fiscal	1	Municipal budget / staff time
Environmental	0	No known environmental impacts
Social	0	No known social impacts
Administrative	1	Village has administrative capability to manage the work
Multi-Hazard	1	
Timeline	1	
Agency Champion	0	
Other Community Objectives	0	
Total	9	
Priority (H/M/L)	High	



Action Number:

V. Fort Edward -5

Mitigation Action Name:

Village Stormwater System.

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	As the stormwater system in the Village ages, it is uncertain as to which areas are in need of updating. An inadequate sized system will lead to increase risk in flooding, siltation, erosion, and degradation of water quality in the Village.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	No action - Current problem persists. Make repairs/upgrades when system fails – not cost effective; increase risk of flooding and erosion.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Evaluate the stormwater system of the Village, identify areas of the system that need to be enhanced, and increase the capacity of the identified areas.
Mitigation Action Type	Local Plans and Regulations (LPR) Structure and Infrastructure Project (SIP)
Goals Met	Goal 1: Protect Life and Property Goal 4: Provide for Emergency Services
Applies to existing and or new development, or not applicable	New and existing
Benefits (losses avoided)	Medium
Estimated Cost	Low to medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village Street Department, Village Water Department
Local Planning Mechanism	Hazard Mitigation, Stormwater Management
Potential Funding Sources	Municipal Budget, CDBG, FEMA HMGP or FMA
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	No progress; new project



Action Number:
Mitigation Action Name:

V. Fort Edward -5
 Village Stormwater System.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	
Environmental	0	No known environmental impacts
Social	0	No known social impacts
Administrative	1	Village has administrative capability to manage the work
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	To be completed in five years once funding is obtained
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	