9.25 Village of Bainbridge

This section presents the jurisdictional annex for the Village of Bainbridge.

9.25.1 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
Phillip Darling, Mayor 33 West Main Street, Bainbridge, NY 13733 Phone: 607-967-7373 E-mail:	Brenda Parsons, Clerk-Treasurer 33 West Main Street, Bainbridge, NY 13733 Phone: 607-967-7373 E-mail: villageofbainbridge@yahoo.com

9.25.2 Municipal Profile

This section provides a summary of the community.

Population

According to the U.S. Census, the 2010 population for the Village was 1,355.

Location

The Village of Bainbridge is the commercial and residential center of the Town of Bainbridge. The Village is on the West Bank of the Susquehanna River at the junction of State Routes 7 and 206. The Village is 32 miles north of the City of Binghamton on the Pennsylvania border and only 175 miles west of New York City.

Brief History

Bainbridge traces its history back to the Sullivan-Clinton Expedition in 1779 to clear the Susquehanna Valley of Indians. On May 6, 1786 land grants established 64 lots of 640 acres in the area of the Village of Bainbridge to the original settlers. The original settlement was named Jericho. The first official town meeting was held in1791. On April 15, 1814, Jericho became Bainbridge, named after Commodore William S. Bainbridge. The Village of Bainbridge was incorporated in 1829.

Governing Body Format

The Village of Bainbridge is governed by a Mayor and four-member Board of Trustees. The Village has three departments headed by an appointed Clerk/Treasurer, an appointed Superintendent of Public Works, and an appointed Police Chief. The Village operates a water distribution system and a municipal wastewater treatment plant. The Village has two volunteer boards; Planning and Zoning Board of Appeals. This governing body will assume responsibility for adoption and implementation of this plan.

Growth/Development Trends

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years in the municipality. Refer to the map in section 9.25.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.25-1. Growth and Development

Property Name	Type (Residential or Commercial)	Number of Structures	Parcel ID(s)	Known Hazard Zone*	Description / Status

Property Name	Type (Residential or Commercial)	Number of Structures	Parcel ID(s)	Known Hazard Zone*	Description / Status
Constitution Pipeline (see details following)	Commercial	N/A	TBD	TBD	Proposed
Leatherstocking Natural Gas Pipeline (see details following)	Commercial	N/A	TBD	TBD	Proposed

* Only location-specific hazard zones or vulnerabilities identified.

Constitution Pipeline – A natural gas pipeline to deliver NG from Susquehanna County, PA to a tie in point in Schoharie County NY. The pipeline will run through the towns of Afton and Bainbridge in Chenango County. This will facilitate the build out of distribution lines into both the Village of Afton and Bainbridge and into portions of both towns. Construction is expected to begin in September of 2015 assuming DEC approval.

Leatherstocking Natural Gas – Proposed pipeline from Bainbridge to Greene, NY following NYS Route 206. This project has the support of Empire State Development with the anchor customer being the Raymond Corporation. The Village of Greene, portions of the town and customers along route 206 would all receive natural gas supply. Construction is contingent upon construction of the Constitution Pipeline.

9.25.3 Natural Hazard Event History Specific to the Municipality

Chenango 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. The table below presents a summary of natural events that have occurred to indicate the range and impact of natural hazard events in the community. Information regarding specific damages is included if available based on reference material or local sources. For details of events prior to 2008, refer to Volume I, Section 5.0 of this plan.

Table 9.25-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
September 7-11, 2011	Tropical Storm Lee	DR-4031 EM-3341	Yes - IA, PA	State Route 206 closed at River and Front Streets for duration of flooding. New sewage treatment facility failed due to flooding. Cost to repair exceeded $72,000. Nine private residences were flooded with losses of $251,699.

Notes:
EM Emergency Declaration (FEMA)
FEMA Federal Emergency Management Agency
DR Major Disaster Declaration (FEMA)
IA Individual Assistance
N/A Not applicable
PA Public Assistance

9.25.4 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 Bainbridge. 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 Village of Bainbridge.

Table 9.25-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard [a]	Probability of Occurrence [c]	Risk Ranking Score (Probability x Impact)	Hazard Ranking [b]
Drought	Damage estimate not available	Occasional	14	Medium
Extreme Temperature	Damage estimate not available	Frequent	30	Medium
Flood	1% Annual Chance: $10,374,000	Frequent	27	Medium
Severe Storm	100-Year MRP: $0 500-year MRP: $24,668 Annualized: $426	Frequent	48	High
Winter Storm	1% GBS: $0 5% GBS: $0	Frequent	48	High
Wildfire	Estimated Value in the WUI: $230,761,000	Occasional	28	Medium
Infestation	Damage estimate not available	Frequent	39	Low
Natural Gas	Damage estimate not available	Frequent	21	Medium

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 the custom inventory developed for Chenango County and probabilistic modeling results and exposure analysis as discussed in Section 5.
c. Frequent = Hazard event is likely to occur within 25 years.
Occasional = Hazard event is likely to occur within 100 years
Rare = Hazard event is not likely to occur within 100 years
d. The estimated potential losses for Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.
GBS = General building stock
MRP = Mean return period
RCV = Replacement cost value

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

Table 9.25-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in the 1% Flood Boundary (3)
Village of Bainbridge	34	31	$675,982.18	7	0	29

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 April 30, 2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 4/30/2014.
(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.

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-percent annual chance flood event.

Table 9.25-5. Potential Flood Losses to Critical Facilities

Name	Municipality	Type	Exposure	Potential Loss from 1% Flood Event		
			1% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent(2)
Village of Bainbridge Water	Bainbridge (V)	Potable Water	X	4.18		
Village of Bainbridge Water	Bainbridge (V)	Potable Water	X	40		

Source: HAZUS-MH 2.1
(1) HAZUS-MH 2.1 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).
(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.
Note:
NA = Not applicable;
NP = Not provided by HAZUS;
x = Facility located within the DFIRM boundary.
- = No results generated in HAZUS.
Please note it is assumed the wells have electrical equipment and openings are three-feet above grade.

Other Vulnerabilities Identified by Municipality

Damage to homes and infrastructure (e.g. Water pumping and Sewage Treatment facilities) in the Flood Plain is the known and predictable hazard for the Village.

9.25.5 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 municipality.

Table 9.25-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	Local, County, State	Admin. by Chenango County	NYS-Int'l Fire & Bldg. Codes
Zoning Ordinance	Y	Local		Adopted 5-10-1993
Subdivision Ordinance	Y	Local		Adopted 8-12-1991
NFIP Flood Damage Protection Ordinance	Y	Federal, State, Local	Administered by County Code Official under an MOU with Village	Adopted 5-10-1993. Updated 11-1-2011
NFIP - Freeboard	Y	State, Local	See above	State mandated BFE+2 for single and

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
				two-family residential construction, BFE+1 for all other construction types.
NFIP - Cumulative Substantial Damages	N	Local		Note: Per Village policy, buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.
Growth Management	N			
Floodplain Management / Basin Plan	Y	State	NYSDEC permit and Federal Agencies	
Stormwater Management Plan/Ordinance	Y	Local, County, State		Zoning & Subdivision Ordinance
Comprehensive Plan / Master Plan	Y	Local		As a Part of Vision 21 – Adopted 2001
Capital Improvements Plan	N			
Site Plan Review Requirements	Y	Local		When a Site Plan Review is done by the Planning Board, it is checked for runoff potential and compliance with floodplain regulations.
Habitat Conservation Plan	N			
Economic Development Plan	Y*	Local	*by: Non-profit Development Corp	
Emergency Response Plan	Y	Local, State	Bainbridge Fire District	
Post Disaster Recovery Plan	Y	County	County EMS	
Post Disaster Recovery Ordinance	N			
Real Estate Disclosure req.	Y	State		State Mandated
Other (e.g. steep slope ordinance)	Y	Local	Village Board	Mobile Home, Refuse, Sanitary, Telecommunications, Road Use Law, Junkyard

(1) Chenango County Planning Commission has review authority on certain actions. If they disapprove an action, local Zoning Board can approve with a greater majority and present findings.
(2) NYS Subdivision laws provide a general framework, but allow room for local ordinances and interpretation.

Administrative and Technical Capability

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

Table 9.25-7. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	County Planning & Development
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Available from Chenango County Code Enforcement
Planners or engineers with an understanding of natural hazards	Y	County Highway

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
NFIP Floodplain Administrator	Y	Richard Metzger, Code Enforcement Officer with support from County Code Official per MOU
Surveyor(s)	Y	County Highway
Personnel skilled or trained in "GIS" applications	Y	County Planning & Development
Scientist familiar with natural hazards in the County.	Y	County Soil and Water Dept.
Emergency Manager	Y	Chenango County EMS
Grant Writer(s)	Y	Consultant on retainer
Staff with expertise or training in benefit/cost analysis	Y	Contract

Fiscal Capability

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

Table 9.25-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	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
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Federal and State grant programs (e.g. FEMA, NYSOEM, NYSDEC)	Yes
Other	Yes

Community Classifications

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

Table 9.25-9. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD	
Public Protection	TBD	
Storm Ready	NP	N/A
Firewise	NP	N/A

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/

National Flood Insurance Program

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

NFIP Floodplain Administrator

Richard Metzger, Code Enforcement Official. The Village recently signed an MOU with the County to provide floodplain management support (Steve Fox).

Program and Compliance History

Village of Bainbridge joined the NFIP in 1987 and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated November 26, 2010. The community's Flood Damage Prevention Ordinance (FDPO) was last updated on September 15, 2010.

As of April 2014 there are 34 policies in force, insuring $ 5.3 million of property with total annual insurance premiums of $ 30.955.

The Village is currently in good standing in the NFIP. The most recent CAV was performed in 2012.

Loss History and Mitigation

Since 1978, 31 claims have been paid totaling $ 675,983. As of April 2014 there are 7 Repetitive Loss and no Severe Repetitive Loss properties in the community.

Substantial Damage estimates are addressed by a third party at the discretion of the property owner. The County maintains a list of the properties damaged during events. There is a need at the Village level to keep better records of those properties sustaining damage during events. There has been some interest in mitigation, but property owners have not followed through. Lack of funding and financial assistance has led to limited action.

Planning and Regulatory Capabilities

Floodplain management regulations and ordinances within the Village of Bainbridge meet both FEMA and New York State minimum requirements. When a Site Plan Review is done by the Planning Board, it is checked for runoff potential. Buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.

Administrative and Technical Capabilities

The community FDPO identifies Code Enforcement Officer as the local NFIP Floodplain Administrator, currently Richard Metzger, for which floodplain administration is an auxiliary duty. The Village recently signed an MOU with the County to provide floodplain management support.

Duties and responsibilities of the Code Enforcement Official/ NFIP Administrator include explaining construction requirements to property owners and making referrals to the County Floodplain Administrator, Steve Fox, CFM. All other floodplain management responsibilities are taken care of at the County level.

Richard Metzger, feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. Richard Metzger is not a certified in floodplain management but attends regular continuing education programs.

Public Education and Outreach

Following a flood event, the floodplain administrator provides forms and pamphlets on recovery to the community and those properties which sustained damage.

Duties and responsibilities of the Code Enforcement Official/ NFIP Administrator include explaining construction requirements to property owners and making referrals to the County Floodplain Administrator, Steve Fox, CFM. All other floodplain management responsibilities are taken care of at the County level.

Actions to Strengthen the Program

Barriers to running an effective floodplain management program include lack of financing. Additional training and information on both floodplain management and the Community Rating System (CRS) would be welcomed. At this time, the Village of Bainbridge is not a CRS community.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

Site Plan Review: When a Site Plan Review is done by the Planning Board, it is checked for runoff potential and compliance with floodplain regulations.

Tracking of Flood Damages: Buildings damaged within the floodplain, even if less than 50% damaged, must be brought into 100% compliance with floodplain regulations.

Floodplain Management: Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.

Floodplain Management: Consider non-structural flood hazard mitigation alternatives for at risk properties in close proximity to the Susquehanna River.

Infrastructure Protection/Floodplain Management: Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity.

Land Use Plans: Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.

Infrastructure Protection/Emergency Response Plan: Purchase backup utilities for sewer and water systems including booster and lift stations.

Floodplain Management: Consider participation in incentive-based programs such as CRS.

Floodplain Management/Public Education and Outreach: Elevation of Homes in the flood plain is prohibitively expensive. Therefore as an alternative to reduce repetitive losses (7 in Village) we propose to help homeowners by assisting them through education and requesting grants to raise utilities (e.g. water heaters, furnaces, electrical panels, etc.) above the flood plain. This will reduce future flood losses.

Floodplain Management: Study the use of a berm to protect the area of repetitive flood damage from moderate level flooding. The area along the river bank from Walnut to Route 7 shows to be extremely low from visual observation. This will reduce future flood damages.

Infrastructure Protection: Construct "Dry Hydrant" water system(s) to provide the ability to draw water from the river if needed to supplement the Village water supply in the occasion of a major fire. Water supply could fail due to flooding or wind storm bringing down power lines.

9.25.6 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 2008 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.

Table 9.25-10. Past Mitigation Initiative Status

Description	Status	Review Comments
VOB-1: Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.	Continuous	Meetings were held as groups and with individual owners in the flood plain re: damages, flood insurance and aid claims. This initiative will be carried over to current mitigation strategy.
VOB-2: Consider non-structural flood hazard mitigation alternatives for at risk properties in close proximity to the Susquehanna River.	Continuous	Still working on alternatives for future mitigation including study of use of a berm in lowest lying areas. This initiative will be carried over to current mitigation strategy.
VOB-3: Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity.	Continuous/Completed	The initial project has been completed, maintenance is continuing. This initiative will be carried over to current mitigation strategy.
VOB-4: Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.	Continuous	Tree removal and trimming is ongoing within financial constraints. Should be accelerated if additional funding can be made available. This initiative will be carried over to current mitigation strategy.
VOB-5: Purchase backup utilities for sewer and water systems including booster and lift stations.	50% Completed	An additional backup generator when funding is available. This initiative will be carried over to current mitigation strategy.
VOB-6: Relocate the Public Works facility to a new location on higher ground and convert the current flood prone property to open space in perpetuity.	Discontinued	No funding has been available. This initiative will not be carried over to the current mitigation strategy.

Description	Status	Review Comments
VOB-7: Consider participation in incentive-based programs such as CRS.	Continuous	A modified version of this initiative is being carried forward, identifying local participation in specific county-led mitigation programs and initiatives.
VOB-8: Support County-wide initiatives identified in Section 9.1 Volume II of this Plan.	Continuous	A modified version of this initiative is being carried forward, identifying local participation in specific county-led mitigation programs and initiatives.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

Sewage treatment plant has been repaired and modified to prevent future failure. This includes elevating electrical controls.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Bainbridge identified mitigation initiatives they would like to pursue in the future. 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. Table 9.25-11 identifies the municipality's updated local mitigation strategy.

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 actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.25-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.25-11. 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
VBB-1	Elevation of homes in the flood plain is prohibitively expensive. Therefore as an alternative to reduce repetitive losses (7 RL properties currently in Village) we propose to help homeowners by assisting them through education and requesting grants to raise utilities (e.g. water heaters, furnaces, electrical panels, etc.) above the floodplain. This will reduce future flood losses.										
	See above	Existing	Flood, Severe Storm	1, 7, 8	See Action Worksheet						
VBB-2	Study the use of a berm to protect the area of repetitive flood damage from moderate level flooding. The area along the river bank from Walnut to Rt. 7 shows to be extremely low from visual observation. This will reduce future flood damages.										
	See above	Existing	Flood	1,7, 8	Village of Bainbridge, NYS DEC, USACE	Medium – identification / assessment of feasible mitigation options	Medium	Local Budget	Short	Medium	SIP, NRS
VBB-3	Construct "Dry Hydrant" water system(s) to provide the ability to draw water from the river if needed to supplement the Village water supply in the occasion of a major fire. Water supply could fail due to flooding or wind storm bringing down power lines.										
	See above	Existing	Wildfire	1, 7, 8	See Action Worksheet						
VBB-4 (Former VBB-1)	Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.										
	See above	New and existing	Flood	10	Village Trustees	High	Low	General fund	Short-term, On-going	Medium	LPR
VBB-5 (Former VBB-3)	Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity. The Army Corp of Engineers and NYSDEC have oversight on any projects but have only permitted Village do periodically clean out debris.										
	See above	Existing	Flood	1,6,7	Public Works, DEC/COE, USACE	High	High	General fund, FEMA grant	Depends on funding	High	NRP, SIP
VBB-6 (Former VBB-4)	Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.										
	See above	Existing	Severe Storm	7	Village Trustees, NYSEG	Medium	Medium	General fund	Short-term, On-going	Medium	NRP,SIP
VBB-7 (Former VBB-5)	Purchase backup utilities for sewer and water systems including booster and lift stations. The Village has purchased one generator and is working on securing grant for additional funds to purchase another generator.										
	See above	New and existing	All hazards	7,11	Village Trustees	High	High	PDM	Short-term	High	SIP
VBB-8 (Former VBB-7, 8)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: • Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification.										

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
	• Public education and awareness program for floodplain residents. • Updates to NFIP floodplain mapping. • Promotion of "Firewise" programs in the County. • Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.										
	See above	New and Existing	All Hazards	All Objectives	Chenango County, as supported by relevant local department leads,	High (improved mitigation and risk-reduction, and emergency management capabilities)	Low-Medium (locally)	Local (staff resources)	Short	High	LPR, EAP

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*

Table 9.25-12. 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
VBB-1	Address Repetitive Loss Properties	1	1	1	1	0	0	1	0	-1	0	1	0	0	0	5	Medium
VBB-2	Berm Study	1	1	0	0	0	0	0	1	0	1	1	0	0	0	5	Medium
VBB-3	"Dry Hydrant" construction	1	1	1	1	0	0	1	0	0	0	1	0	0	0	6	Medium
VBB-4 (Former VBB-1)	Continue local participation in NFIP, promote participation in the Community Rating System to lower flood insurance premiums, and inform public of availability of flood insurance.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Medium
VBB-5 (Former VBB-3)	Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity. The Army Corp of Engineers and NYSDEC have oversight on any projects but have only permitted Village do periodically clean out debris.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	High
VBB-6 (Former VBB-4)	Develop tree trimming and removal program to keep trees from threatening lives, property and infrastructure during storm events.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Medium
VBB-7 (Former VBB-5)	Purchase backup utilities for sewer and water systems including booster and lift stations. The Village has purchased one generator and is working on securing grant for additional funds to purchase another generator.	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	High
VBB-8 (Former VBB-7, 8)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	High

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

9.25.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

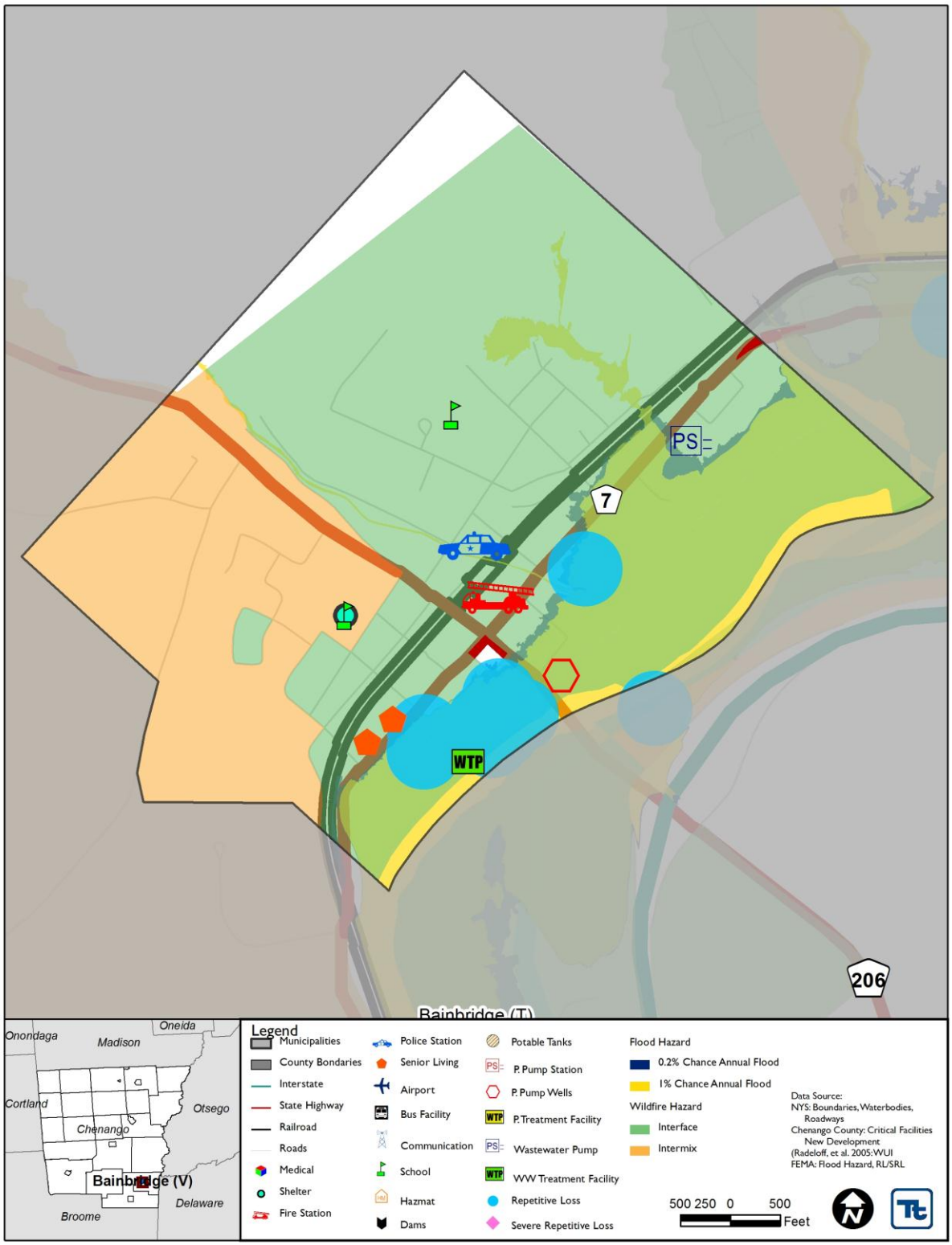
9.25.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Bainbridge 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 Bainbridge has significant exposure. Figure 9.25-1 illustrates the hazard area extent and location for the Village.

9.25.9 Additional Comments

None at this time.

Figure 9.25-1. Village of Bainbridge Hazard Area Extent and Location Map



Name of Jurisdiction: Village of Bainbridge
Number: VBB-1
Mitigation Action/Initiative: Address Repetitive Loss Properties

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Reduce future flood losses.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – current problem continues
	2. No other feasible options were identified for this project.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Elevation of Homes in the flood plain is prohibitively expensive. Therefore as an alternative to reduce repetitive losses we propose to help homeowners by assisting them through education and requesting grants to raise utilities (e.g. water heaters, furnaces, electrical panels, etc.) above the flood plain.
Mitigation Action/Project Type	SIP, EAP
Objectives Met	7, 10, 13
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Bainbridge
Local Planning Mechanism	Stormwater Management, Capital Improvement, Highway
Potential Funding Sources	Grants
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

*** Refer to results of Prioritization (page 2)**

Number: VBB-1
Mitigation Action/Initiative: Address Repetitive Loss Properties

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protect residents from future flood events and evacuations
Property Protection	1	Protect properties from flood damage
Cost-Effectiveness	1	
Technical	1	
Political	0	
Legal	0	
Fiscal	1	See grant funding
Environmental	0	
Social	-1	
Administrative	0	
Multi-Hazard	1	Flood, Severe Storm, Severe Winter Storm
Timeline	0	
Agency Champion	0	
Other Community Objectives	0	
Total	5	
Priority (High/Med/Low)	Medium	

Name of Jurisdiction: Village of Bainbridge
Number: VBB-3
Mitigation Action/Initiative: "Dry Hydrant" Construction

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm, Drought
Specific problem being mitigated:	Water supply could fail due to flooding or wind storm bringing down power lines.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – current problem continues
	2. No other feasible options were identified for this project.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Construct "Dry Hydrant" water system(s) to provide the ability to draw water from the river if needed to supplement the Village water supply in the occasion of a major fire.
Mitigation Action/Project Type	SIP
Objectives Met	11
Applies to existing structures/infrastructure, future, or not applicable	New
Benefits (losses avoided)	Medium
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Village of Bainbridge
Local Planning Mechanism	Capital Improvement, Stormwater Management
Potential Funding Sources	Grants
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

*** Refer to results of Prioritization (page 2)**

Number: VBB-3
Mitigation Action/Initiative: "Dry Hydrant" Construction

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	
Political	0	
Legal	0	
Fiscal	1	See grant funding
Environmental	0	
Social	0	
Administrative	0	
Multi-Hazard	1	Flood, Severe Storm, Drought
Timeline	0	
Agency Champion	0	
Other Community Objectives	0	
Total	6	
Priority (High/Med/Low)	Medium	

Name of Jurisdiction: Village of Bainbridge
Number: VBB-5
Mitigation Action/Initiative: Control flooding along Newton Creek

Assessing the Risk	
Hazard(s) addressed:	Flood
Specific problem being mitigated:	Flooding and erosion of Newton Creek in Village
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – current problem continues
	2. No other feasible options were identified for this project.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Control flooding along Newton Creek by reinforcing the bank along the stream to prevent/control erosion. Prevention and maintenance will maintain the integrity. The Army Corp of Engineers and NYSDEC have oversight on any projects but have only permitted Village do periodically clean out debris.
Mitigation Action/Project Type	SIP, NSP
Objectives Met	1, 6, 7
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Public Works, DEC/COE, USACE
Local Planning Mechanism	Stormwater Management, Capital Improvement, Highway
Potential Funding Sources	General Fund, FEMA grants
Timeline for Completion	DOF
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

*** Refer to results of Prioritization (page 2)**

Number: VBB-5
Mitigation Action/Initiative: Control flooding along Newton Creek

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)	High	

Name of Jurisdiction: Village of Bainbridge
Number: VBB-7
Mitigation Action/Initiative: Backup Generators

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Loss of power to sewer and water systems in the Village
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – current problem continues
	2. No other feasible options were identified for this project.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase backup utilities for sewer and water systems including booster and lift stations. The Village has purchased one generator and is working on securing grant for additional funds to purchase another generator.
Mitigation Action/Project Type	SIP
Objectives Met	7, 11
Applies to existing structures/infrastructure, future, or not applicable	New and Existing
Benefits (losses avoided)	High
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Village Trustees
Local Planning Mechanism	Capital Improvement
Potential Funding Sources	PDM
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

*** Refer to results of Prioritization (page 2)**

Number: VBB-7
Mitigation Action/Initiative: Backup Generators

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)	High	