

## 9.12 VILLAGE OF JOHNSON CITY

This section presents the jurisdictional annex for the Village of Johnson City.

### A.) HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact	Alternate Point of Contact
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### B.) PROFILE

#### Population

15,174 (estimated 2010 U.S. Census)

#### Location

The Village of Johnson City is in the Town of Union in Broome County, NY. The village is part of the “Triple City,” along with Endicott and Binghamton, NY. Johnson City is on the north side of the Susquehanna River and is west of Binghamton, NY. According to the U.S. Census Bureau, the village has a total square are of 4.6 square miles, of which, 4.4 square miles is land and 0.2 square miles is water.

#### Brief History

Johnson City was originally incorporated in 1892 as the Village of Lestcheshire. In 1916 the village was renamed Johnson City after George F. Johnson, who was known for the Endicott Johnson Corporation. In 2007, residents organized a petition supporting the dissolution of the village for tax reason and in 2009 a vote was held resulting in a “no” for dissolution of the village.

#### Governing Body Format

Home rule is strong in New York State and thus, each town and village has its own governing body. Towns are made up of a Town Board and Supervisor. Villages generally have a Mayor, Clerk, and Board of Trustees. Along with town and village roads, any public water and sewer systems are operated by the local municipality, though they may cooperate with County departments. Each municipality has charge over its own planning and zoning and uses the County personnel as a resource.

#### Growth/Development Trends

There are currently no known major developments expected for the next five (5) years.

**C.) NATURAL HAZARD EVENT HISTORY SINCE 2006**

Broome County has a history of natural hazard events as detailed in Volume I, Section 5 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events affecting the County and its municipalities. Below is presented a summary of events dating from the year 2006 to indicate the range and impact of natural hazard events in this community. Specific damages have been indicated if available from reference or local sources. For details of events prior to 2006, refer to Volume I, Section 5 of this plan.

Type of Event	FEMA Disaster # (if applicable)	County Designated?	Date	Approximate Damage Assessment
Severe Storms and Flooding	DR 1650	Yes - IA, PA	June 26 — July 10, 2006	\$615,000
Severe Storms and Flooding	DR 1670	Yes - IA, PA	November 16-17, 2006	\$150,000
April Nor'easter	DR 1692	No	April 14 - 18, 2007	N/A
Severe Storms and Flooding	DR 1710	No	June 19, 2007	N/A
Severe Winter Storm	EM 3299 DR 1827	No	December 11-31, 2008	N/A
Severe Storms and Flooding	DR 1857	No	August 8-10, 2009	N/A
Severe Winter Storm and Snowstorm	DR 1957	No	December 26-27, 2011	N/A
Severe Storms, Flooding, Tornado and Straight Line Winds	DR 1993	Yes - PA	April 26 — May 8, 2011	\$400,000
Hurricane Irene	EM 3328 DR 4020	Yes - IA, PA	August 26 — September 5, 2011	N/A
Remnants of Tropical Storm Lee	EM 3341 DR 4031	Yes - IA, PA	September 7-11, 2011	\$6,100,000

Note: N/A = Not applicable

**D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING**

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c</sup>	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking <sup>b</sup>
Flood	1% Annual Chance: \$75,118,689 0.2% Annual Chance: \$114,765,562	Frequent	33	High
Severe Winter Storm	1% of GBS: \$17,016,577 5% of GBS: \$85,082,884	Frequent	24	Medium
Severe Storm	100-Year MRP: \$0 500-Year MRP: \$318,619 Annualized Loss: \$2,963	Frequent	30	Medium
Earthquake	500-Year MRP: \$1,398,492 2,500-Year MRP: \$15,153,681 Annualized Loss: \$19,088	Occasional	20	Medium
Drought	Not available	Frequent	18	Low
Extreme Temperature	Not available	Frequent	18	Low

- Building damage ratio estimates based on FEMA 386-2 (August 2001)
- 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
- The valuation of general building stock and loss estimates was based on custom inventory for Broome County.
- Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- Loss estimates for the flood and earthquake hazards represent both structure and contents.
- The HAZUS-MH earthquake model results are reported by Census Tract.

**E.) CAPABILITY ASSESSMENT**

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community resiliency
- Community political capability
- Community classification.

The town indicates that it has high planning, regulatory, administrative, technical, and community political capability; moderate fiscal capability and community resiliency; with a moderately to very willing political capability to enact policies or programs to reduce hazard vulnerabilities in the community.

**E.1) Legal and Regulatory Capability**

Regulatory Tools (Codes, Ordinances., Plans)	Do you have this? (Y or N)	Enforcement Authority	Code Citation (Section, Paragraph, Page Number, Date of adoption)
1) Building Code	Y	Local	5/31/2011 TOU Code §156.4
2) Zoning Ordinance	Y	Local	5/27/2007 JC DOPS §238
3) Subdivision Ordinance	Y	Local	2008 §300 Zoning
4) NFIP Flood Damage Prevention Ordinance	Y	Local	
4a) Cumulative Substantial Damages		Local	2008; §300 Zoning
4b) Freeboard		Local	2008; §300-32
5) Growth Management		Local	
6) Floodplain Management / Basin Plan	Y	Local or Watershed	1997; §272
7) Stormwater Management Plan/Ordinance	Y	Local	
8) Comprehensive Plan / Master Plan/ General Plan	Y	Local	2010
9) Capital Improvements Plan	Y	Local or County	
10) Site Plan Review Requirements	Y	Local	
11) Open Space Plan	Y	Local or County	
12) Stream Corridor Management Plan		Local or Watershed	
13) Watershed Management or Protection Plan	Y	Local or Watershed	
14) Economic Development Plan		County	
15) Comprehensive Emergency Management Plan		Local or County	
16) Emergency Response Plan	Y	Local or County	
17) Post Disaster Recovery Plan		Local	
18) Post Disaster Recovery Ordinance		Local	
19) Real Estate Disclosure Requirement		State	State Requirement
20) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)]	LTCRP	Local or County	

**E.2) Administrative and Technical Capability**

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/ Position
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Planning - Town of Union Engineering – JC Director of Public Services
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Engineer- JC Director of Public Services Buildings – TOU Code & Ordinances
3) Planners or engineers with an understanding of natural hazards	Y	Planning - Town of Union
4) NFIP Floodplain Administrator	Y	Town of Union Code Enforcement
5) Surveyor(s)	N	Engineering/Surveying firms utilized when required.
6) Personnel skilled or trained in “GIS” applications	N	
7) Scientist familiar with natural hazards	N	
8) Emergency Manager	Y	Mayor
9) Grant Writer(s)	N	
10) Staff with expertise or training in benefit/cost analysis	N	

**E.3) Fiscal Capability**

Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)
1) Community Development Block Grants (CDBG)	Y
2) Capital Improvements Project Funding	Y
3) Authority to Levy Taxes for specific purposes	Y
4) User fees for water, sewer, gas or electric service	Y
5) Impact Fees for homebuyers or developers of new development/homes	N
6) Incur debt through general obligation bonds	Y
7) Incur debt through special tax bonds	N
8) Incur debt through private activity bonds	N
9) Withhold public expenditures in hazard-prone areas	Y
10) State mitigation grant programs (e.g. NYSDEC, NYCDEP)	Y
11) Other - State and/or Federal grants	Y

#### E.4) Community Classifications

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

N/A = Not applicable. NP = Not participating. - = Unavailable. Unk = Unknown

The classifications listed above relate to the community's effectiveness in providing services that may impact its vulnerability to the natural 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 one (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/>

## F. MITIGATION STRATEGY

### F.1) Past Mitigation Actions/Status

The Village of Johnson City identified a number of mitigation projects/activities that have been completed, are planned, or ongoing in the community.

Completed mitigation projects include:

- 525 Grand Avenue – Elevated in 2007.
- 37 River Terrace – Acquired in 2007 is maintained green space.
- Unnamed drainage ditch at 500 Reynolds Road – A concrete headwall with vertical trash racks was completed in June 2012.
- Unnamed drainage ditch at 821 Robinson Hill Road – Concrete steps for velocity dissipation were installed in June 2012 to replace the damaged gabion steps.
- Roadside ditch at 114 Deyo Hill Road – in May 2012 a project was completed that lined the roadside ditch with rip-rap, a concrete headwall was installed at the inlet of the road crossing culvert, the culvert size was increased, an addition discharge pipe was placed and rip-rap was placed at the discharge end of the pipes.
- Arthur Avenue – Reconstructed in June 2012 with curbing and a closed drainage system.

- Generators have been installed at well # 6 and #7, Fairview Street booster station, Reynolds Road booster station, and Northside and Southside Fire Stations.
- The Village sought to acquire the property at 59 Lester Avenue in order to relocate the DPW facility out of a flood prone area. The Village Board chose not to obtain this property, though Broome County may do so through Court system

The municipality also noted that there are currently nine (9) properties that have submitted for acquisition through the FEMA Buyout Program; 29 River Terrace, 33 River Terrace, 83 Olive Street, 91 Olive Street, 16 N. Harrison Street, 28 N. Harrison Street, 52 N. Harrison Street, 16 N. Baldwin Street, 72 N. Hudson Street. Other ongoing mitigation activities include:

- DPW facility – currently there is a preliminary design to rebuild the DPW offices onto a second floor at the existing site.
- CSO facilities – project currently in progress to raise controls and SCADA equipment approximately five (5) feet to an elevation of one (1) foot above the flood elevation of record. Estimated completion date is August 17, 2012.

In addition to the completed and ongoing mitigation actions, the following planned or proposed projects are in progress or awaiting funding or approval:

- Water Department facility – there are the following proposed projects; construct a new building for the offices, SCADA equipment, meter room and employee locker room within the existing complex at an elevation six (6) feet above the existing floor elevation; wet proofing the three well house located on site; raising and replacing backup generator – projects currently waiting FEMA/NYSOEM approvals.
- Unnamed drainage ditch between Reynolds Road and Anna Maria Drive - a rehabilitation project has been designed and is awaiting approval from the Army Corps of Engineers.

The progress of mitigation actions from the 2007 Hazards Mitigation plan is indicated in Section F.3. Actions that are in not yet complete or are ongoing have been carried over to this plan update.

## **F.2) Hazard Vulnerabilities Identified**

The Village of Johnson City noted a number of hazard problems and problem areas where their community has suffered damages/losses to natural hazards. These problem areas include:

- Area bounded by NYS Route 17, 528 Harry L Drive (Gander Mtn), Harry L Drive and N. Broad Street, which includes Northside Park and Northside Fire Station.
- Area bounded by NYS Route 17, NYS Route 201, Little Choconut Creek and N. Broad Street, which includes the Village's Public Works facility and fuel filling station.
- The Johnson City Water Department, 44 Camden Street located in the Westover area of the Town of Union.
- Area that includes Boland Drive, Chrisfield Drive, River Terrace, Theron Street, Thomas Street, Bernice Street and Grand Avenue between the Susquehanna River and Grand Avenue.
- The Johnson City Combined Sewer Overflow Facilities (CSOs) located at 720 Riverside Drive, the AES Westover power generating plant (former known as the Goudey Station).
- Area that includes Valley Plaza Drive, Oakdale Road, Azon Road, Field Street, Frank Street and Marie Street.
- Unnamed drainage ditch between 500 Reynolds Road (Warehouse Carpet Outlet) and 553 Harry L Drive (Calvary Cemetery).
- Unnamed drainage ditch between Reynolds Road and Anna Maria Drive, beginning at Penna Drive and discharging into Broome County Finch Hollow Site #1.
- Unnamed drainage ditch that is located with 821 Robinson Hill Road.

- Roadside drainage ditch in front of 114 Deyo Road and storm sewer between 103 Deyo Hill Road and 107 Deyo Hill Road.
- The discharge area below Broome County Finch Hollow Site #1, including the west side of the Oakdale Mall parking lot and Arthur Avenue.

It is estimated that in the Village of Johnson City, 2,521 residents live within the 1% annual chance flood area (NFIP Special Flood Hazard Area). Of the municipality's total land area, 12.4% is located within the 1% annual chance flood area. \$255,790,029 (8.6%) of the municipality's general building stock replacement cost value (structure and contents) is located within the 1% annual chance flood area.

There are 322 NFIP policies in the community and there are 157 policies located within the 1% annual chance flood area. FEMA has identified 23 Repetitive Loss (RL) including 1 Severe Repetitive Loss (SRL) properties in the municipality.

Further information regarding the community's participation in the NFIP is provided in the table below.

### NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Polices in 1% Boundary (3)	# Polices in 0.2% Boundary (3)	# Policies Outside the 0.2% Flood Hazard (3)
Johnson City (V)	322	187	\$14,415,601	23	1	157	51	114

Source:

- (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, in April 2012 using the "Comm\_Name". These statistics are current as of January 31, 2012. Please note the total number of repetitive loss properties includes the severe repetitive loss properties.
- (2) Total building and content losses from the claims file provided by FEMA Region 2 (current as of January 31, 2012).
- (3) The policy locations used are based on the latitude and longitude provided by FEMA Region 2.

HAZUS-MH estimates that for a 1% annual chance flood, \$75,118,689 (2.5%) of the municipality's general building stock replacement cost value (structure and contents) will be damaged, 631 people may be displaced, 466 people may seek short-term sheltering, and an estimated 2,914 tons of debris could be generated. HAZUS-MH estimates the following damage and loss of use to critical facilities in the community as a result of a 1% annual chance flood event:

Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
			1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent <sup>(2)</sup>	Percent Structure Damage	Percent Content Damage	Days to 100-Percent <sup>(2)</sup>
WELL #6, BURNS STRFET	Johnson City (V)	Potable Water		X	-	-	NA	1.4	-	NA
WELL #7, NORTH BROAD ST	Johnson City (V)	Potable Water		X	-	-	NA	2.4	-	NA
Water Plant, Camden Street	Johnson City (V)	N/A		N/A			N/A	N/A		N/A
DPW Facility, Brown Street	Johnson City (V)	DPW		N/A			N/A	N/A		N/A

Name	Municipality	Type	Exposure		Potential Loss from 1% Flood Event			Potential Loss from 0.2% Flood Event		
			1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent <sup>(2)</sup>	Percent Structure Damage	Percent Content Damage	Days to 100-Percent <sup>(2)</sup>
Senior Centre at Brockton St.	Johnson City (V)	N/A		N/A			N/A	N/A		N/A

Source: HAZUS-MH 2.1

Note:

NA Not available

= No loss calculated by HAZUS-MH 2.1

V Village

X Facility located within the DFIRM boundary.

(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).

Please note 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.

Please refer to the Hazard Profiles for additional vulnerability information relevant to this jurisdiction.

### F.3) PROPOSED HAZARD MITIGATION INITIATIVES

Note some of the identified mitigation 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.

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2007 Action Status
1.	Continue to participate in FEMA Buyout Program: Currently there are nine (9) properties that have submitted for acquisition: 29 River Terrace, 33 River Terrace, 83 Olive Street, 91 Olive Street, 16 N. Harrison Street, 28 N. Harrison Street, 52 N. Harrison Street, 16 N. Baldwin Street, 72 N. Hudson Street.	Existing	Flood	1-1	Village of Johnson City Mayor's Office	High	Low	FEMA mitigation grant opportunities	Short Term DOF	Medium	PP	New
2.	DPW facility – rebuild the DPW offices onto a second floor at the existing site.	Existing	Flood	1-1 1-11	Village DPW	High	High	FEMA mitigation grant opportunities	Long Term DOF	High	PP	New
3.	Water Department facility projects – construct a new building for the offices, SCADA equipment, meter room and employee locker room within the existing complex at an elevation six (6) feet above the existing floor elevation; wet proofing the three well house located on site; raising and replacing backup generator.	Existing	Flood	1-1 1-5 1-11	Village Water Department	High	High	FEMA mitigation grant opportunities	Short Term DOF	High	PP	New
4.	Rehabilitation project at unnamed drainage ditch between Reynolds Road and Anna Maria Drive	Existing	Flood	1-1 3-1	USACE, Village DPW	High	Medium	USACOE	Short Term DOF	Medium	PP,SP	New
5.	Explore stormwater retention project at the	New and Existing	Flood	1-1 1-3	Village Mayor's Office,	High	High	FEMA mitigation	Long Term	Medium	SP	New



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	Johnson City District School property located at 25 N. Hudson Street. This site contains 9.03 Acres of land that currently has the School's football field and associated storage and maintenance buildings located on it.			3-1	Town of Union			grant opportunities	DOF			
6.	Support and provide input to the Town of Union town-wide plans and studies to further characterize flooding issues including:  -Townwide Comprehensive Long Term Recovery Plan -Townwide Comprehensive Drainage Plan -Townwide Floodplain Management Plan and Ordinance -Townwide Comprehensive Sewer Infiltration Study -Townwide Floodproofing Analysis	N/A	Flood	1-1 1-3 3-1	Town of Union, Village Mayor's Office	Medium	Medium	Federal grant opportunities, Municipal Budget	Short Term DOF	Medium	PR	New
7.	Wet proofing of the Village's water supply wells (#5,#6,#7) that are off-site from the main Water Plant.	Existing	Flood	1-1 1-5	Village DPW	High	Medium	Federal grant opportunities, State, County and private sector funding	Short Term DOF	Medium	PP	New
8.	Install storm water pump station at the Water Plant.	Existing	Flood	1-1 1-5	Village DPW	High	High	Federal grant opportunities, State, County and private sector funding	Long Term DOF	High	SP,PP	New
9.	Investigate the levy surrounding the Water Plant to determine if it	Existing	Flood	1-1 1-3 1-11	Village Mayor's Office	High	High	Federal grant opportunities, State,	Long Term DOF	Medium	SP	New



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	could be raised.							County and private sector funding				
10.	Install backup power supply (generator) at the Town of Union Water Booster Station located on Fairview Street, Johnson City, which is utilized to supply water to the Broome County Landfill and Airport.	Existing	All	1-1 1-3 1-11 3-1	Village Mayor's Office, Broome County	High	High	Federal grant opportunities, State, County and private sector funding	Long Term DOF	Low	ES,SP	New
11.	Continue training in the National Incident Command System (ICS), under the National Incident Management System (NIMS).	N/A	All	4-1 4-3 4-8	Village Mayor's Office FEMA	High	Low	Municipal Budget	On-going	Medium	ES	Ongoing
12.	Develop and implement or maintain and enhance programs to keep trees from threatening lives, property, and public infrastructure during storm events.	N/A	Severe Storm	3-1 4-2	Village DPW NYSEG	Medium	Low	Municipal Budget NYSEG	On-going	Medium	PP,PR	Ongoing
13.	Retrofit vulnerable critical facilities, including the Wren Street water pump booster station, to include backup and redundant power sources to maintain facility operations during hazard events for which they are exposed.	Existing	Flood	1-1 1-3 1-11 3-1	Village Mayor's Office and Planning	High	High	Federal grant opportunities, State, County and private sector funding Homeland Security Grants	Long Term DOF	Low	PP,SP	Ongoing
14.	Assist in the update of flood plain (FIRM) maps – Jurisdictional Level. Specific assistance can be provided in the area of attending map update meetings held by FEMA, NYDEC and USGS; and identification of flood-prone areas outside of	N/A	Flood	1-1 1-3 2-3	FEMA, Village Mayor's Office	High	Medium	Municipal Budget	On-going	Medium	PR	Ongoing



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	currently designated areas											
15.	Convert stormwater outfall mapping to GIS format.	N/A	Flood	2-3	Village Planning	Medium	Medium	Municipal Budget	Short Term DOF	Low	PR	Ongoing
16.	Continue participation in the National Flood Insurance Program (NFIP).	N/A	Flood	1-2 1-7 2-1	Village Mayor's Office and TOU	High	Low	Municipal Budget	On-going	High	PR	Ongoing
17.	Continue participation in the CRS.	N/A	Flood	1-2 1-7 2-1	Village Mayor's Office	High	Low	Municipal Budget	On-going	High	PR	Ongoing
18.	Maintain flood insurance for Public Works Garage and Water Department in the floodplain.	Existing	Flood	1-4	Village DPW	High	Low	Municipal Budget	On-going	High	PP,PR	Ongoing
19.	Maintain and enforce a parking ordinance for emergency snow removal.	N/A	Severe Storm	1-4 4-4	Village Police Dept.	Low	Low	Municipal Budget	On-going	Low	ES,PR	Ongoing
20.	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including 37 River Terrace and other properties that have experienced repetitive losses, such as acquisition/relocation, or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.											
	Please see above.	Existing	Flood, Severe Storm	1-1 1-2 2-1 2-2 3-2	Village Floodplain Administrator	High	High	FEMA Mitigation Grants	Long Term DOF	Medium	PP	Ongoing
21.	Provide flooding information to residents in high-risk areas: Pamphlets will continue to be mailed to residents in flood prone areas affected by the Susquehanna River, Nanticoke Creek, and Little Choconut Creek. Each pamphlet is tailored in terms of the type of flood warning that residents of each area must be aware of. These pamphlets shall be periodically reviewed and updated to provide the most current data possible.											
	Please see above.	Existing	Flood	1-2 2-1	Town of Union Planning Department; Villages of Endicott and Johnson City	Medium	Medium	Municipal Budget	Ongoing, expand as funding allows	High	PE	New
22.	Taft Avenue Sewer upgrades. In September of 2011, many businesses suffered structural and /or damage to essential capital components of their buildings due to flooding, especially in portions of the Village of Johnson City and the Westover, Main Street Endwell, and West Corners business districts. Several property owners have reported that their homes were subject to the back flow of sewer water into their homes during the September 2011 flood event.											
	Please see above.	Existing	Flood	1-1 1-11	Village P&CD; DPW	Medium	Medium	Federal mitigation grants, CDBG-DR	Short Term DOF	Medium	PP,SP	New
23.	Provide funding to supplement a grant from New York State to prepare a Long Term Community Recovery Plan for the Town of Union, including the Villages of											



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	Endicott and Johnson City. The purpose of the Long Term Community Recovery Plan is to provide a much more in-depth analysis of the impacts of the September 2011 flood event on the Town's housing and commercial industrial inventory and markets. The plan will also identify potential adaptive re-uses of properties and investigate potential funding sources for catalytic redevelopment activities.											
	Please see above.	N/A	Flood	1-7 1-10 3-1	Village P&CD; DPW	High	High	Federal grant opportunities, CDBG-DR, NYSEMO	Short Term	Medium	PR	New
24.	Provide funds to update the Town's Floodplain Management Plan, and incorporate the Villages of Endicott and Johnson City into the new plan. Neither of the two villages currently have plans. The floodplain development ordinance will also be revised as part of this project. The flood event of September 2011 impacted several areas throughout the Town that have not historically been flooded and are not currently addressed in the Town's Floodplain Management Plan. The new plan will also make recommendations for improving the Town's Floodplain Development Ordinance.											
	Please see above.	N/A	Flood	1-7 1-10 3-1	Village P&CD; DPW	Medium	Medium	Federal grant opportunities CDBG-DR	Short Term	Medium	PR	New
Flood-1	Purchase, relocate, or elevate structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.  Phase 1: Identify appropriate candidates based on cost-effectiveness versus retrofitting.  Phase 2: Where relocation is determined to be a viable option, work with property owners toward implementation of that action based on available funding from FEMA and local match availability.											
	Please see above.	Existing	Flood, Severe Storm	1-1 1-2 2-1 2-2 3-2	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from BCPD, NYSOEM, FEMA	High	High	FEMA Mitigation Grants	Long Term DOF	Medium	PP	New
Flood-2	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified (below).											
	Please see above.	N/A	Flood, Severe Storm	1-1 1-2 1-4 1-5 1-6 1-7 2-1 2-2 3-2	Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	High	Low-Medium	Municipal Budget	On-going	High	PR, PE	New
Flood-3	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: <ul style="list-style-type: none"> <li>Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.</li> </ul>											



SECTION 9.12: VILLAGE OF JOHNSON CITY

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2007 Action Status
	<ul style="list-style-type: none"> <li>Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.</li> <li>Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.</li> </ul> <p>Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.</p>											
	Please see above.	N/A	All Hazards, Or Flood	1-2 1-7 1-9 2-1 2-2 3-2 3-4 4-6	Municipality with support from Planning Partners, BCPD, NYSOEM, FEMA	Medium	Medium	Municipal Budget, HMA programs with local or county match	Short Term		PE	New
Flood-4	Obtain and archive elevation certificates	N/A	Flood, Severe Storm	1-1 1-2 1-4 1-5 4-1	NFIP Floodplain Administrator	Medium	Low	Municipal Budget	On-going	High	PR	New
Flood-5	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	New and Existing	All Hazards	All Goals and Objectives	Municipality with support from Planning Partners, BCPD, NYSOEM, FEMA	High	Low – High (for 5 year update)	Municipal Budget, FEMA planning grants	On-going	High	PR	New
Flood-6	Complete ongoing updates of Comprehensive Emergency Management Plans	New and Existing	All Hazards	1-1 1-10 4-2	Municipality with support from NYSOEM	Low	Low	Municipal Budget	On-going	High	PR	New
Flood-7	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	N/A	All Hazards	3-1 3-3 4-5	Municipality with support from County, NYSOEM, FEMA and surrounding communities	Medium	Low	Municipal Budget	Short Term	High	PR, ES	New
Flood-8	Identify and develop agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve	N/A	All Hazards	1-4 1-5 2-2 3-1 4-1	Municipality with support from County, NYSOEM and FEMA	Medium	Medium	Municipal Budget	Short Term	Medium	PR, ES	New



SECTION 9.12: VILLAGE OF JOHNSON CITY

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2007 Action Status
	post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping											
Flood-9	Work with regional agencies (i.e. County and SOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	N/A	All Hazards	1-5 2-2 2-3 3-1 4-1 4-3	Municipality with support from County, NYSOEM and FEMA	Medium	Medium	Municipal Budget, FEMA HMA and HLS grant programs	Short-Long Term DOF	Medium	PR	New
Flood-10	Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including: <ul style="list-style-type: none"> <li>Support the performance of enhanced risk and vulnerability assessments for hazards of concern.</li> <li>Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use.</li> </ul> Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 "Rapid Visual Screening of Buildings for Potential Seismic Hazards" methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.											
	Please see above.	N/A	All Hazards	1-1 1-3 1-8 2-2 3-1 4-1	Hazard Mitigation Plan Coordinator	Medium-High	Medium-High	FEMA Mitigation Grant Programs with local match	Long Term DOF	Medium	PP,PR	New
Severe Storm-1	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program. "StormReady" communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. Participation in the NOAA "StormReady" program shall include providing information on the "StormReady" program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "StormReady" participation include establishing a 24 hour Warning Point, increase number of ways EOC receives NWS warnings, increase number of ways to disseminate warnings, monitoring hydrometeorological data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.											
	Please see above.	N/A	Severe Storm	1-1 1-2 2-1 2-2 2-6	Municipality with support from County, NYSOEM and FEMA	Medium	Low	Municipal Budget	Short Term DOF	Medium	PE	New



Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals and Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	2007 Action Status
Earthquake-1	Obtain training and conduct rapid screening assessment of critical facilities for earthquake vulnerability.	N/A	Earthquake	1-1 4-2 4-3	Municipal Emergency Management, Fire, PD with support from County, NYSOEM	Medium	Medium	Municipal Budget, State and County grant opportunities	Long Term DOF	Low	PR, ES	New
Earthquake-2	Develop a post-earthquake management plan to address building safety inspections, gas leaks, and other elements to protect public safety.	N/A	Earthquake	1-11 4-5 4-6	Municipal Emergency Management, Fire, PD with support from County, NYSOEM	Medium	Medium	Municipal Budget, State and County grant opportunities	Long Term DOF	Low	ES	New

Notes:

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

#### Acronyms

ARC	American Red Cross
BCDSS	Broome County Department of Social Services
BCOES	Broome County Office of Emergency Services
BCPD	Broome County Planning Department and Economic Development
BCSWCD	Broome County Soil and Water Conservation District
BHA	Binghamton Housing Authority
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
NFIP	National Flood Insurance Program
NYSDEC	New York State Department of Environmental Conservation
NYSDOT	New York State Department of Transportation
NYSEG	New York State Electric and Gas
NYSFSMA	New York State Floodplain and Stormwater Managers Association
NYSOEM	New York State Office of Emergency Management
USACE	United States Army Corp of Engineers
USGS	United States Geological Survey

#### 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.

**Potential FEMA HMA Funding Sources:**

PDM = Pre-Disaster Mitigation Grant Program

FMA = Flood Mitigation Assistance Grant Program

RFC = Repetitive Flood Claims Grant Program

SRL = Severe Repetitive Loss Grant Program

HMGP = Hazard Mitigation Grant Program

**Timeline:**

Short = 1 to 5 years. Long Term = 5 years or greater. OG = On-going program.

DOF = Depending on funding.

**Notes (for Mitigation Type):**

1. PR=Prevention: Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built Examples of these are acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
2. PP= Property Protection: These actions also 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 planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
3. PE=Public Education and Awareness: 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 school-age and adult education programs.
4. NR=Natural Resource Protection: 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.
5. SP=Structural Projects: 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.
6. ES=Emergency Services: 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.

## G.) PRIORITIZATION OF MITIGATION INITIATIVES

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
1	1	H	L	Y	Y	N	M
2	2	H	H	Y	Y	N	H
3	3	H	H	Y	Y	N	H
4	2	H	M	Y	Y	N	M
5	3	H	H	Y	Y	N	M
6	3	M	M	Y	N	N	M
7	2	H	M	Y	N	N	M
8	2	H	H	Y	Y	N	H
9	3	H	H	Y	Y	N	M
10	4	H	H	Y	Y	N	L
11	3	H	L	Y	Y	N	M
12	2	H	L	Y	N	Y	M
13	4	H	H	Y	Y	Y	M
14	3	M	M	Y	Y	N	M
15	1	M	M	Y	N	Y	L
16	3	H	L	Y	N	N	H
17	3	H	L	Y	N	Y	H
18	1	H	L	Y	N	Y	H
19	2	L	L	Y	N	Y	H
20	5	H	H	Y	N	Y	M
21	2	M	M	Y	N	Y	H
22	2	M	M	Y	Y	N	M
23	3	H	H	Y	Y	N	M
24	3	M	M	Y	Y	N	M
Flood 1	5	H	H	Y	Y	N	M
Flood 2	9	H	M	Y	N	Y	H
Flood 3	8	M	M	Y	Y	Y	M
Flood 4	5	M	L	Y	N	Y	H
Flood 5	ALL	H	H	Y	Y	Y	H
Flood 6	3	L	L	Y	N	Y	H
Flood 7	2	L	L	Y	N	Y	H
Flood 8	5	M	M	Y	N	Y	M

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
Flood 9	6	M	M	Y	Y	Y	M
Flood 10	6	M	M	Y	Y	N	M
Sever Storm	5	M	L	Y	N	Y	M
Earthquake 1	3	M	M	Y	N	Y	L
Earthquake 2	3	M	M	Y	N	Y	L

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.

### **Explanation of Priorities**

High Priority = A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).

Medium Priority = A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

Low Priority = Any project that will mitigate the risk of a hazard, benefits do not exceed the costs or are difficult to quantify, funding has not been secured and project is not eligible for HMGP or PDM grant funding, and time line for completion is considered long term (1 to 10 years). Low priority projects may be eligible other sources of grant funding from other programs. A low priority project could become a high priority project once funding is secured as long as it could be completed in the short term.

Prioritization of initiatives was based on above definitions: Yes

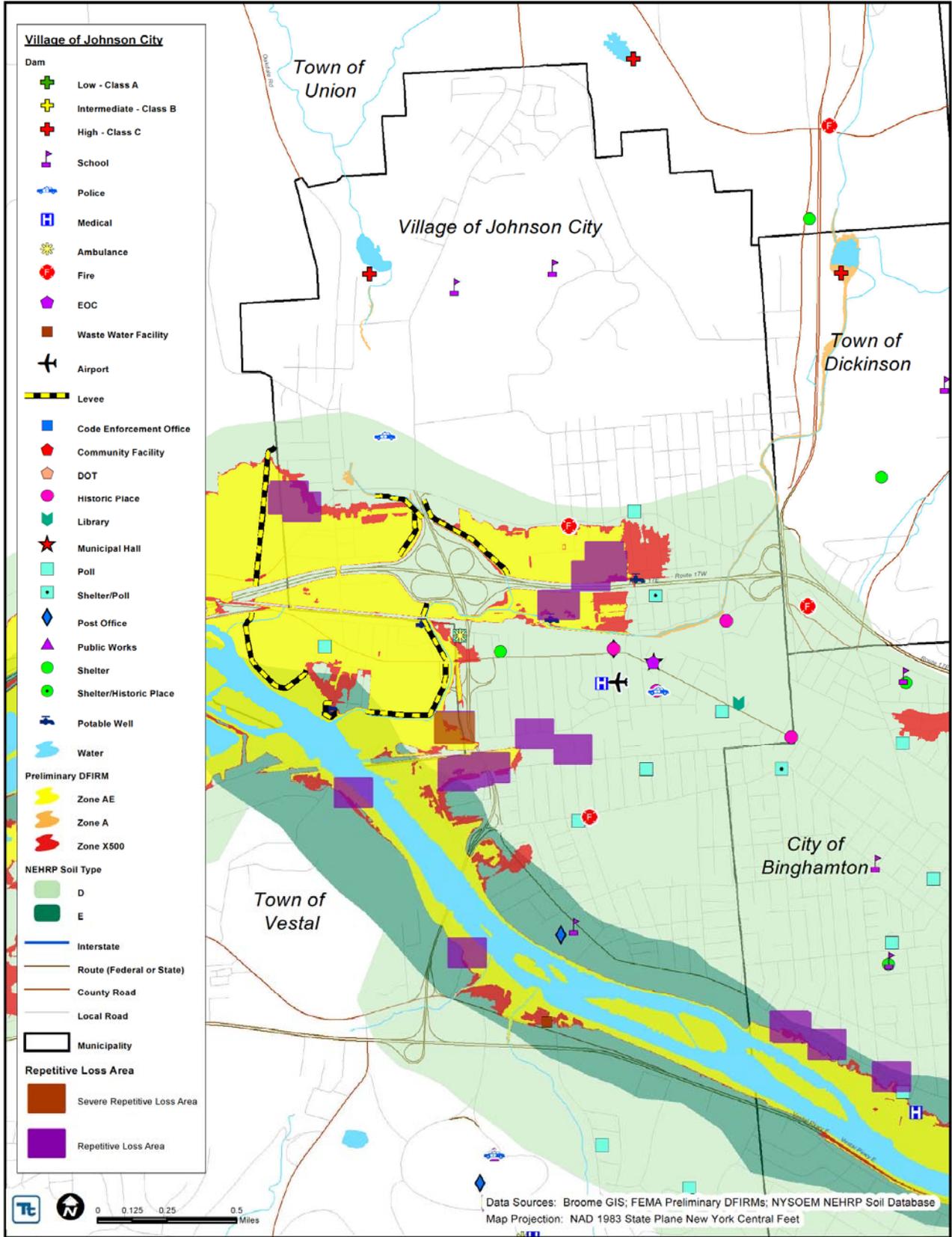
Prioritization of initiatives was based on parameters other than stated above: Not applicable.

### **H.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY**

None at this time.

### **I.) HAZARD AREA EXTENT AND LOCATION**

A hazard area extent and location map has been generated for the Village of Johnson City to illustrate the probable areas impacted within the Village of Johnson City and is provided on the next page. This map is based on the best available data at the time of the preparation of this Plan, and is 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 Johnson City has significant exposure. The Planning Area maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.



## J.) STATUS OF INCORPORATION OF MITIGATION PLANNING INTO EXISTING AND FUTURE PLANNING MECHANISMS

It is the intention of this municipality to incorporate mitigation planning as an integral component of daily municipal operations. Below is a list of planning mechanisms that have been/will be incorporated into municipal procedures.

(Check which apply and add explanation if required)

Planning Mechanisms	Has Been Utilized	Will Be Utilized
<b>Operating Budget</b> When constructing upcoming budgets, Hazard Mitigation Actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the Hazard Mitigation goals and objectives.		TBD
<b>Capital Improvement Budget</b> When constructing upcoming budgets, Hazard Mitigation Actions will be funded as budget allows. Construction projects will be evaluated to see if they meet the Hazard Mitigation goals and objectives.		TBD
<b>Human Resource Manual</b> Employee job descriptions may contain Hazard Mitigation Actions.		TBD
<b>Building and Zoning Ordinances</b> A variety of building and zoning regulations are used to restrict the uses of land and establish building specifications. Prior to land use, zoning changes or development permitting the village will review the hazard mitigation plan and other hazard analysis to ensure consistent and compatible land use.		TBD
<b>Comprehensive Land Use Plan</b> A land use plan is intended to identify land use issues and to make recommendations on how to address these issues. When applicable the village will incorporate Hazard Mitigation Actions in the development and extent of the regulations.		TBD
<b>Grant Applications</b> Data and maps will be used as supporting documentation in grant applications		TBD
<b>Municipal Ordinances</b> When updating municipal ordinances Hazard Mitigation will be a priority.		TBD
<b>Fire Plan</b> The Hazard Mitigation Plan will be used as a resource for the development of future Fire Plans.		TBD
<b>Capital Improvement Planning</b> The municipality will establish a protocol to review current and future projects for hazard vulnerability. The will incorporate hazard resistant construction standards into the design and location of projects.		TBD
<b>Day to Day Operations</b> Incorporate Hazard Mitigation Actions in daily operations and all projects will be a goal of the municipality.		TBD
<b>Local School Service Projects</b> The municipality to work closely with the local school district and assist with community service projects for the service organizations. Several of the village's Hazard Mitigation Actions can be implemented as a joint project with the school district.		TBD
<b>Municipal Budget-</b> Adopted annually Municipality will look at Mitigation Actions when allocating funding.		TBD
<b>Economic Development-</b> The local economic development group will utilize the identification of hazard areas when assisting new business in finding a location.		TBD

TBD: To Be Determined



**K.) ADDITIONAL COMMENTS**

No additional comments at this time.