



## 9.34 Village of The Branch

This section presents the jurisdictional annex for the Village of The Branch.

### 9.34.1 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
John Valentine, Director of Public Safety 65 Maple Avenue, Smithtown, NY 11787 (631) 360-7553 <a href="mailto:publicsafety@smithtowndps.org">publicsafety@smithtowndps.org</a> ; <a href="mailto:publicsafety@tosgov.com">publicsafety@tosgov.com</a>	Thomas Keon, Mayor Incorporated Village of The Branch, PO Box 725 Smithtown, NY 11787-0725 (631) 265-3315 <a href="mailto:villageofbranch@optonline.net">villageofbranch@optonline.net</a>

### 9.34.2 Municipal Profile

This section provides a summary of the community.

#### Population

According to the U.S. Census, the 2010 population for the Village of The Branch was 1,807.

#### Location

The Village of The Branch is located within the Town of Smithtown, surrounded by the Hamlet of Smithtown. The Northeast Branch of the Nissequogue runs through the one square mile Village. The Town of Smithtown is on the North Shore of Long Island east of the Town of Huntington and west of the Town of Brookhaven. See brief history, below for more information.

The Village of The Branch enjoys a moderate climate with average low temperatures in the 30’s degrees Fahrenheit (°F) and average high temperatures in the mid 70’s (°F). The humidity ranges between 55 and 80% throughout the year. Over the long term, regional precipitation amounts average between 3.0 to 4.5 inches per month, receiving the highest amount of precipitation in March. However, the Village has been subject to higher accumulations of rainfall in twelve (12) of the last thirty-two (32) years. For example, in 2003, over 87 inches (7.25”/month) of rain fell, and recent weather history has shown that the Village may be subject to greater impact form precipitation events than regional analysis indicates.

#### Brief History

The Village of the Branch was formerly incorporated in 1927. Previously it was part of the Town of Smithtown.

There is a legend that Richard Smythe, one of the first settlers in the mid'1600's, bought the Smithtown area from the Nesquake Indians who told him that he could own as much land that he could cover riding a bull in one day. He waited for the longest day of the year, rose at sunrise and covered an area that is approximately 27 square miles today. However, there is evidence that Smithtown was acquired by Lion Gardiner, an Englishman, who was a good friend of Chief Wyandanch, a Montauk Indian Heather Flower, Wyandanch's daughter, was kidnapped on her wedding day. Gardiner earned the Nesquake land





as part of negotiations with Chief Wyandanch in the release of Heather Flower. Gardiner then handed the land over to Richard Smythe.

There were more than 700 residents in the Town of Smithtown in the 1700's. History tells us that they suffered severely during the American Revolution spreading debt and hardship. During the 19th century, the commercial center became known and the Village of the Branch where the first school was constructed.

The Village of the Branch was incorporated in 1927 with a population of 131 in an area of approximately one square mile comprised of large estates, open fields and cultivated areas. Today the village has almost no vacant land and is comprised of shopping centers, office buildings, residential subdivisions and historical sites. The population exceeds 1,895 people.

The issue that sparked the movement to incorporate was the desire to establish a municipal water plant. A group against this plan decided to leave the jurisdiction of the Township of Smithtown by incorporating. They would thus gain control over such matters as zoning, planning, and services such as water, highway maintenance, police and fire protection.

The proposition for the incorporation of the Village of The Branch, dated February 5th, 1927, was circulated. The proposition stated that the requirements for incorporation had been met, the territory did not exceed one square mile, it was situated entirely within the Town of Smithtown, it did not include any part of any other village, there was a population of at least 50 but not more than 200 people. The petition was followed by consent to the proposed incorporations signed by owners of at least one-half of the real property value. On this document were such Smithtownites as Miller, Goetchius, Blydenburgh, Hunting, Walker, Lawrence, Hewlett, Nicodemus, Arthur, Arnold, Turrell, White, and, of course, Smith. A public hearing on the subject was held on March 29, 1927, all of the 16 ballots were cast: 11 yes votes and 5 no votes.

Opposition to the incorporation took many forms. Some felt that it was only a threat to prevent the municipal water plant from being pursued while others felt it was the secret ambition of the gentry who wished the incorporation to ally themselves with the already incorporated Village of Nissequogue. Others felt that incorporating villages would mark the end of the town. In 1927 proceedings were started to form incorporations of the Village of The Landing, which fell on hard times and was dissolved a few years later. After a court challenge to the incorporation process, the Village of The Branch became an incorporated village. Until this day, the village continues to work with the Town of Smithtown officials for the benefit of the residents.

### **Governing Body Format**

In the 1920's the unpaid Mayor and two Trustees administered the needs of the village holding only four meetings a year. Today the village has a budget of \$700,000, elects a Mayor, four Trustees and two Justices. An election is held every two years on the 3rd Tuesday of March. Monthly meetings address all village business. This body will assume the responsibility for the implementation and adoption of this plan.

### **Growth/Development Trends**

Very little undeveloped land remains in the one square mile Village of the Branch. No future growth or development that would impact hazard mitigation planning is anticipated at this time.



**Table 9.34-1. Growth and Development**

Property Name	Type (Residential or Commercial)	Number of Structures	Location (address and/or Parcel ID)	Known Hazard Zone*	Description / Status
None identified at this time					

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

### 9.34.3 Natural Hazard Event History Specific to the Municipality

Suffolk 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.

The Town of Smithtown provides support to the Village pertaining to emergency preparedness and loss documentation. As such, the Town has identified that the following events have resulted in local impacts to the Village of the Branch. As resources permit, damage amounts have begun to be quantified, but final total damages/losses incurred as a result of each event are unavailable at this time, except as elsewhere indicated within this plan in regards to high-priority mitigation initiatives.

**Table 9.34-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
June 26-July 4, 2013	Severe Storms and Flooding	DR-4129	No	Refer to above
June 14, 2013	Rain			Refer to above
June 11, 2013	Rain			Refer to above
June 6-8, 2013	Record Heavy Rain			Refer to above
May 25, 2013	High Winds			Refer to above
May 23, 2013	Flash Flooding			Refer to above
May 8, 2013	Flash Flooding			Refer to above
April 12, 2013	High Winds			Refer to above
March 18-19, 2013	Winter Storm			Refer to above
March 6-8, 2013	Winter Storm			Refer to above
February 26-27, 2013	High Winds and Rain			Refer to above
February 18, 2013	High Winds			Refer to above
February 17, 2013	Snowstorm			Refer to above
February 14, 2013	Snowstorm			Refer to above
February 8-9, 2013	Severe Winter Storm and Snowstorm	DR-4111	Yes- PA (Public Assistance)	Refer to above
February 2, 2013	Snowstorm			Refer to above
January 31, 2013	High Winds and Rain			Refer to above
January 28, 2013	Snowstorm			Refer to above
January 25, 2013	Snowstorm			Refer to above
January 21, 2013	Winter Storm			Refer to above
January 16, 2013	Winter Storm			Refer to above



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
December 29, 2012	Snowstorm			Refer to above
December 26-27, 2012	Nor'Easter			Refer to above
December 21, 2012	High Winds and Rain			Refer to above
November 7, 2012	Nor'Easter			Refer to above
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes- IA (Individual Assistance) and PA	Refer to above
September 18, 2012	Heavy Rain and Wind Event			Refer to above
August 6, 2012	Heavy Rain Event			Refer to above
June 12-13, 2012	Rain Event			Refer to above
June 2, 2012	Rain Event			Refer to above
January 21, 2012	Snow Event			Refer to above
January 16-17, 2012	Snow Event			Refer to above
October 27-29, 2011	Light Snow, Heavy Snow, Rain, and Wind Event			Refer to above
September 7-11, 2011	Remnants of Tropical Storm Lee	EM-3341 DR-4031	No	Refer to above
August 26-September 5, 2011	Hurricane Irene	EM-3328 DR-4020	Yes- IA and PA	Refer to above
June 23, 2011	Heavy Rain, Flooding Event			Refer to above
April 26-May 8, 2011	Severe Storms, Flooding, Tornado and Straight Line Winds	DR-1993	No	Refer to above
February 25-26, 2011	Wind, Snow, Rain, and Wind Event			Refer to above
February 21, 2011	Wind, Snow, Rain, and Wind Event			Refer to above
February 19, 2011	Wind, Snow, Rain, and Wind Event			Refer to above
January 26-27, 2011	Heavy Snow			Refer to above
December 26-27, 2010	Severe Winter Storm and Snowstorm	DR-1957	Yes- PA	Refer to above
December 12-14, 2010	Rain, Wind, and Light Snow Event			Refer to above
October 15-16, 2010	Rain and Wind Event			Refer to above
September 29-30, 2010	Rain Event			Refer to above
September 16, 2010	Severe Storms, Tornadoes and Straight Line Wind	DR-1943	No	Refer to above
June 24, 2010	Severe Weather and QLCS Tornado Event			Refer to above
May 9, 2010	Wind Event			Refer to above
March 13-31, 2010	Severe Storms and Flooding	DR-1899	Yes-PA	Refer to Mitigation Action Worksheet for LOI#310
March 12-15, 2010	Heavy Snow, Rain, and Wind Event			Refer to Mitigation Action Worksheet for LOI#310
February 25-27, 2010	Heavy Snow, Rain, and Wind Event			Refer to above
February 23-24, 2010	Heavy Snow, Rain,			Refer to above



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
	and Wind Event			
February 16-17, 2010	Heavy Snow, Rain, and Wind Event			Refer to above
February 10, 2010	Snow and Wind Events			Refer to above
February 6, 2010	Snow and Wind Events			Refer to above
February 2-3, 2010	Snow and Wind Events			Refer to above
January 2-3, 2010	Snow and Wind Events			Refer to above
December 31, 2010	Blizzard, Wind Event, Light Snow Event			Refer to above
December 29, 2010	Blizzard, Wind Event, Light Snow Event			Refer to above
December 19-20, 2010	Blizzard, Wind Event, Light Snow Event			Refer to above
November 12-14, 2009	Severe Storms and Flooding associated with Tropical Depression Ida and Nor'Easter	DR-1869	Yes-PA	Refer to above
August 28-29, 2009	Heavy Rain Associated With Hurricane Danny			Refer to above
August 8-10, 2009	Severe Storms and Flooding	DR-1857	No	Refer to above
July 24, 2009	Heavy Rain			Refer to above
July 21, 2009	Heavy Rain			Refer to above
June 20-21, 2009	Heavy Rain			Refer to above
March 1-2, 2009	Heavy Snow and Wind			Refer to above
February 25-26, 2009	Snow Squall Event			Refer to above
February 21, 2009	Snow Squall Event			Refer to above
February 19, 2009	Snow Squall Event			Refer to above
January 27-28, 2009	Heavy Snow and Ice			Refer to above
December 11-31, 2008	Severe Winter Storm	EM-3299 DR-1827	No	Refer to above
June 14, 2008	Heavy Rain Event			Refer to above
March 7-9, 2008	Snow, Rain, and Wind Event			Refer to above
March 4-5, 2008	Snow, Rain, and Wind Event			Refer to above
March 1, 2008	Snow, Rain, and Wind Event			Refer to above
February 22, 2008	Wind and Snow Events			Refer to above
February 18, 2008	Wind and Snow Events			Refer to above
February 12-13, 2008	Wind, Snow, Ice, and Heavy Rain Events			Refer to above
February 10, 2008	Wind, Snow, Ice, and Heavy Rain Events			Refer to above
January 30, 2008	Snow and Wind Event			Refer to above



Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
January 17-18, 2008	Snow and Wind Event			Refer to above
January 13-14, 2008	Snow and Wind Event			Refer to above
January 9, 2008	Snow and Wind Event			Refer to above

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



### 9.34.4 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 The Branch. 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 The Branch.

**Table 9.34-3. Hazard Risk/Vulnerability Risk Ranking**

Ranking	Hazard Type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, b, c</sup>	Probability of Occurrence <sup>d</sup>	Risk Ranking Score (Probability x Impact)
1	Severe Storms	100-Year RCV: \$293,791,664	Frequent	48
		500-Year RCV: \$4,115,858,896		
2	Shallow Groundwater	Damage estimate not available <sup>(1)</sup>	Frequent	45
3	Severe Winter Storms	1% of GBS: \$7,750,102	Frequent	36
		5% of GBS: \$38,750,511		
3	Nor’Easters	100-Year RCV: \$293,791,664	Occasional	36
		500-Year RCV: \$4,115,858,896		
4	Hurricane	Category 1 SLOSH: \$0	Occasional	32
		Category 2 SLOSH: \$0		
		Category 3 SLOSH: \$0		
		Category 4 SLOSH: \$0		
5	Flooding	1% Annual Chance: \$4,266 <sup>(3)</sup>	Frequent	30
		0.2% Annual Chance: \$4,266 <sup>(3)</sup>		
6	Groundwater Contamination	Damage estimate not available	Frequent	27
7	Earthquake	500-Year MRP: \$53,909,841	Rare	16
		2,500-Year MRP: \$953,595,152		
8	Wildfire	GBS RCV in Intermix/Interface: \$0	Rare	6
8	Infestation	Damage estimate not available <sup>(2)</sup>	Rare	6
9	Drought	Damage estimate not available	Rare	3
9	Expansive Soils	Damage estimate not available	Rare	3
10	Coastal Erosion	Not applicable	None	0

- 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 Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.
- c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the Tribes within the Town



boundary.

- d. *Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years, Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years*
- e. *The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.*

CEHA = Coastal Erosion Hazard Area

GBS = General building stock

MRP = Mean return period

RCV = Replacement cost value

Note (1): *The Shallow Groundwater hazard has caused significant damages to private properties within the Village of the Branch. Refer to Section 9.34.3 and Table 9.34-2, as well as Mitigation Action Worksheet for LOI#310. The Town of Smithtown has quantified damages using FEMA-accepted methodology within the Village of the Branch for purposes of BCA calculations for prior and pending Hazard Mitigation Grant Applications.*

Note (2): *The infestation hazard causes damages to wetlands and stream beds in the form of invasive plant species by restricting natural drainage capacity, thereby aggravating the Flood and Shallow Groundwater Hazards. Invasive plant species, such as bamboo, are also actively causing damage to residential septic systems. Damages have not been quantified at this time.*

Note (3): *Note that elsewhere in this plan, the need is cited for improved flood maps and data in the Village of the Branch FEMA Floodplain. Losses generated by HAZUS-MH are less than losses actually experienced, as indicated in Table 9.34-4.*

### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

**Table 9.34-4. NFIP Summary**

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)	# Policies in 500-year Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Village of The Branch	6	4	\$7,881	0	0	0	0	6

Source: FEMA Region 2, 2014

Note (1): *Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of January 31, 2014. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents the number of claims closed by January 31, 2014.*

Note (2): *Information regarding total building and content losses was gathered from the claims file provided by FEMA Region 2.*

Note (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. FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.*



**Critical Facilities**

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1- and 0.2-percent annual chance flood events.

**Table 9.34-5. Potential Flood Losses to Critical Facilities**

Name	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>
None identified at this time.									

**Other Vulnerabilities Identified by Municipality**

In addition to those identified above, the municipality has identified the following vulnerabilities:

- Shallow Groundwater Hazard in the Northeast Branch of the Nissequogue corridor is plaguing residents. The segment of the Northeast Branch within the Village is the subject of a pending Hazard Mitigation grant application.
- Stormwater and debris management are challenges throughout the Village and are exacerbated by most natural hazards.



### 9.34.5 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 9.34-6. 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		Code of the Village of The Branch, paragraph 31-25, adopted 2/10/87,
Zoning Ordinance	Y	Local		March 13, 1973, Code of the Village of The Branch, Chapter 85.
Subdivision Ordinance				
NFIP Flood Damage Protection Ordinance	Y	Local		"A local law entitled "Flood Damage Prevention" was adopted by the Board of Trustees of the Incorporated Village of the Branch 3-10-1998 by L.L. No. 1-1998. This local law is on file in the office of the Village Clerk. Said local law repealed former Ch. 45, Flood Damage Prevention, adopted 12-8-1987 by L.L. No. 5-1987"
NFIP - Freeboard	Y			State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other
NFIP – Cumulative Substantial Damages				
Special Purpose Ordinances				
Growth Management				
Floodplain Management / Basin Plan	Y	Local		12/8/1987 L.L. No .5-1987
Stormwater Management Plan/Ordinance				
Comprehensive Plan / Master Plan				



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.)
Capital Improvements Plan				
Site Plan Review Requirements	Y	Local, State		Part of State Mandated building code.
Habitat Conservation Plan				
Economic Development Plan				
Emergency Response Plan				
Shoreline Management Plan				
Post Disaster Recovery Plan				
Post Disaster Recovery Ordinance				
Real Estate Disclosure req.	Y			State mandated
Other (e.g. steep slope ordinance, local waterfront revitalization plan)	Y	Local		Fire Prevention

### Administrative and Technical Capability

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

**Table 9.34-7. 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	Building Department, Engineering Contract Entity
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Village Engineer, contract entity
Planners or engineers with an understanding of natural hazards	Y	Village Engineer
NFIP Floodplain Administrator	Y	Chief Building Official
Surveyor(s)	Y	available via Contract
Personnel skilled or trained in “GIS” applications	N	Engineering Contract entity
Scientist familiar with natural hazards in the municipality.	N	Available via Contract
Emergency Manager	Y	The Town of Smithtown Department of Public Safety, and the technical resources they can coordinate from the Town, including but not limited to emergency management, and hazard mitigation planning and engineering are available to the Village
Grant Writer(s)	N	Contract entity
Staff with expertise or training in benefit/cost analysis	N	Contract entity
Professionals trained in conducting damage assessments	Y	Chief Building Official/Floodplain Administrator



### Fiscal Capability

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

**Table 9.34-8. 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	No
Impact Fees for homebuyers or developers of new development/homes	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	N/A
Mitigation grant programs	Yes
Other	No

### Community Classifications

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

**Table 9.34-9. Community Classifications**

Program	Classification	Date Classified
Community Rating System (CRS)	Not Participating	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	3/3	2004
Public Protection	3	-
Storm Ready	Not Participating	N/A
Firewise	Not Participating	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:** Gerard W. Harris, Building Inspector. The approach Smithtown and the Villages take to floodplain management is a team approach. Many personnel across diverse backgrounds assist on ensuring issues within the floodplain are addressed completely.

### Program and Compliance History

The Village of The Branch joined the NFIP on November 17, 1982, and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The communities Flood Damage Prevention Ordinance (FDPO), found at Chapter 45 of the local code, was last updated on March 10, 1998.

As of January 31, 2014 there are 6 policies in force, insuring \$2,125,000 of property with total annual insurance premiums of \$6,405. Since January 31, 2014, 4 claims have been paid totaling \$7,881.19. As of January 31, 2014 there are no Repetitive Loss or Severe Repetitive Loss properties in the community.

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

### Loss History and Mitigation

Since January 31, 2014, 4 claims have been paid totaling \$7,881.19. As of January 31, 2014 there are no Repetitive Loss or Severe Repetitive Loss properties in the community.

For minimal losses, the Village Floodplain Administrator and Building Inspector has the capabilities to perform the damage reports. However, should a significant natural event widely impact the Village, or have other needs beyond current capabilities, the Town of Smithtown Department of Public Safety provide appropriate resources to address the properties of concern.

No damage was sustained to properties following Hurricane Sandy due to flooding.

### Planning and Regulatory Capabilities

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on March 10, 1998, and is found at Chapter 45 of the local code.



Floodplain management regulations and ordinances meet FEMA and New York State requirements. The Village does not have additional policies or programs to enhance the implementation of the National Floodplain Management Program.

### **Administrative and Technical Capabilities**

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

In addition to the NFIP FPA, the community has supplementary staff for which NFIP is an auxiliary duty; personnel include a contracted professionally licensed Engineer and professional grant writer for the Village. The Town of Smithtown makes resources available to the Village as necessary to assist with implementation the floodplain management program.

Duties and responsibilities of the Building Inspector/NFIP Administrator are permit review, damage assessments, record-keeping, and inspections. GIS services can be provided, as necessary, by the Town of Smithtown or the Village Engineer.

Lists are maintained of the properties that are damaged, however no tracking has been necessary for property owners interested in mitigation. For minimal losses, the Village Floodplain Administrator and Building Inspector has the capabilities to perform the damage reports. However, should a significant natural event widely impact the Village, or have other needs beyond current capabilities, the Town of Smithtown Department of Public Safety provide appropriate resources to address the properties of concern.

Mr. Harris has received training in many aspects of floodplain administration, code enforcement and other related training regularly in the past. He is adequately trained to fulfill his responsibilities as the municipal floodplain administrator. Should any local training opportunities arise for further training and/or certification, the Village would participate.

### **Public Education and Outreach**

In the Village of The Branch, the Village Board of Trustees and the Mayor conduct educational and/or outreach activities related to the NFIP.

Duties and responsibilities of the Building Inspector/NFIP Administrator are permit review, damage assessments, record-keeping, and inspections. GIS services can be provided, as necessary, by the Town of Smithtown or the Village Engineer.

### **Actions to Strengthen the Program**

To fully implement the floodplain management program in the Village of The Branch, additional areas in the Northeast Branch of the Nissequogue River, Nissequogue River and its tributaries need to be more fully studied and mapped by FEMA. These areas were not studied during the most recent FEMA Flood Insurance Study in 2009, and are on unprinted map panels. Flooding impacts in these areas are unknown and there could be unmet needs for additional flood insurance policies. Additional training and information regarding floodplain management would be welcomed. The benefit of joining the Community Rating System (CRS) to the Village of The Branch is low as, from their current knowledge of the program, it appears to cost more money to join than policy holders would see in a reduction of their premiums.



### 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/ongoing programs and may be considered mitigation “capabilities”:

- **Floodplain Management/Building Code, Ordinances, and Enforcement-** Develop and/or enhance the current stormwater management system to be in compliance with federal and state regulations such that there will be a net reduction in the flood risk caused by stormwater impacts.
- **Emergency Response Planning-** Adopt and enhance the Town of Smithtown’s existing Emergency management Plan
- **Emergency Response Planning-** Consider the development of a post-disaster action plan, including a debris management plan.

Table 9.34-10. Planning Mechanisms

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.		X
<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.		X
<b>Human Resource Manual</b> Employee job descriptions may contain Hazard Mitigation Actions.		
<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 city will review the hazard mitigation plan and other hazard analysis to ensure consistent and compatible land use.		
<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 city will incorporate Hazard Mitigation Actions in the development and extent of the regulations.		
<b>Grant Applications</b> Data and maps will be used as supporting documentation in grant applications		X
<b>Municipal Ordinances</b> When updating municipal ordinances Hazard Mitigation will be a priority.		X
<b>Fire Plan</b> The Hazard Mitigation Plan will be used as a resource for the development of future Fire Plans.		
<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.		
<b>Day to Day Operations</b>		X



Planning Mechanisms	Has Been Utilized	Will Be Utilized
Incorporate Hazard Mitigation Actions in daily operations and all projects will be a goal of the municipality.		
<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 municipality's Hazard Mitigation Actions can be implemented as a joint project with the school district.		
<b>Municipal Budget</b> Adopted annually Municipality will look at Mitigation Actions when allocating funding.		X
<b>Economic Development</b> The local economic development group will utilize the identification of hazard areas when assisting new business in finding a location.		



### 9.34.6 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 9.34-11. Past Mitigation Initiative Status**

Description	Status	Review Comments
VB-1: Establish a Capital Improvement program for the village that is based on a Capital Improvement Plan, mechanism for funding projects, and process for review and update.	In Progress	Carried over – See Table 9.34-11.
VB-2: Partner with Suffolk County in the development of an enhanced feasibility study to determine the most feasible retrofit to Millers Pond to enhance flood control for the village.	In Progress	Carried over – See Table 9.34-11.
VB-3: Adopt an updated Emergency response plan in conjunction with The Town of Smithtown.	100% Completed	Completed - discontinued.
VB-4: Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for Village Trustee’s	In Progress	Carried over in refined format – See Table 9.34-11.
VB-5: Increase Public awareness of Hazards through existing community outreach programs.	Continuous	Carried over in refined format – See Table 9.34-11.
VB-6: Partner with The Town of Smithtown on their Mitigation projects that impact the Village to leverage resources, and secure multiple tangible benefits for both entities.	Continuous	Carried over – See Table 9.34-11.
VB-7: Support county-wide initiatives identified in Section 9.1 of the Suffolk County Annex.	Continuous	A modified version of this initiative is being carried forward, identifying willingness to participate in multi-jurisdictional initiatives
VB-8: Consider the development of a post – disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans.	Continuous	A modified version of this initiative is being carried forward, identifying willingness to participate in multi-jurisdictional initiatives
VB-9: Consider participation in incentive-based programs such as, CRS and “Storm-Ready”.	Continuous	The Village has included an initiative to support county-led initiatives, which include programs to enhance floodplain management capabilities. The Village will attend a CRS workshop if offered locally.
VB-10: Develop and/or enhance the current stormwater management system to be in compliance with federal and state regulations such that there will be a net reduction in the flood risk caused by stormwater impacts.	Continuous	Carried over in refined format – See Table 9.34-11.





Description	Status	Review Comments
VB-11: Continue to support the implementation, monitoring, maintenance and updating of this Plan, as defined in Section 7.0	Continuous	A current capability. This initiative is being removed from the updated mitigation strategy as it refers to activities that are an ongoing and normal part of Village operations. The Village has fully participated in the 2014 update to this plan.
VB-12: Strive to maintain compliance with and good-standing in the National Flood Insurance program.	Continuous	A current capability. This initiative is being removed from the updated mitigation strategy, and identified as a mitigation capability as it refers to activities that are an ongoing and normal part of Village operations. Initiatives that enhance local floodplain management capabilities and participation in the NFIP have been identified in the Village's updated mitigation strategy.
VB-13: Enforce the seismic design provisions in the building Code of New York State in the planning stage.	Continuous	A current capability. The Village has indicated that it will participate in and support the activities of the county-led multi-jurisdictional seismic safety committee.

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

The Village is very small and has limited fiscal resources. Utilizing existing resources and capabilities, their daily operations seek to achieve the objectives of this plan. No major capital projects have been completed recently.



---

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

The Village of The Branch 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 9.34-11 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 9.34-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



**Table 9.34-11. Proposed Hazard Mitigation Initiatives**

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
VB-1	Establish a Capital Improvement program for the village that is based on a Capital Improvement Plan, mechanism for funding projects, and process for review and update.	NA	All Hazards	1, 7,14, 15,16	Village Mayor/ Trustee's	Medium	High	Village general Fund, bonds, Impact fees	Long-term, DOF	Medium	LPR, SIP, NRP, EAP
VB-2	Partner with Suffolk County in the development of an enhanced feasibility study to determine the most feasible retrofit to Millers Pond to enhance flood control for the village.	Existing	Flood, Severe storms, Nor' Easters, Hurricane	3,5,7,15,16	County of Suffolk, Village	Medium	High	Suffolk County	Long-term, DOF	High	SIP, NRP
VB-3 (prev. VB-4)	Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for Village Trustees and other critical Village personnel	NA	All Hazards	1,3,7,13	Village Mayor/ Trustee's	Medium	Low	Village General fund through existing programs, DHS program grant	Short term	High	LPR
VB-4 (prev. VB-5)	Continue to increase public awareness of natural hazards through use of the Village's website and other existing community outreach forums.	NA	All Hazards	1,3,7	Village Mayor/ Trustee's	Medium	Low	Village General fund through existing programs	Short term	High	EAP
VB-5	Partner with The Town of Smithtown on their Mitigation projects that	NA	Flood, Nor'Easter, Hurricane, Severe Weather, Shallow	7,15	Village; Town of Smithtown	Range	Range	Village General fund, cost-	Long term DOF	High	SIP, NRP





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
(prev VB-4)	impact the Village to leverage resources, and secure multiple tangible benefits for both entities.		Ground water					sharing with Smithtown. Possible FEMA hazard Mitigation Grant Funding depending upon project eligibility.			
VB-6 (prev VB-5)	As capabilities permit, support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically it is acknowledged that opportunities for multi-jurisdictional partnership may be beneficial to enhance the following: <ul style="list-style-type: none"> <li>Natural hazard awareness and personal scale risk reduction/mitigation public education and outreach programs</li> <li>Post-disaster assessment and recovery capabilities</li> <li>Debris Management</li> <li>Outreach to private property owners to improve understanding of damage history and create interest in mitigation activities</li> <li>Regional, county and local capabilities to manage seismic risk, both pre- and post-disaster</li> <li>Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan)</li> </ul>										
	See above.	New and Existing	All Hazards	All objectives	Ten Towns of Suffolk County, in partnership with the County of Suffolk and other Villages	Range	Range	Existing programs and grant funding where applicable	OG	Medium	LPR, EAP
VB-7 (prev VB-9)	Participate in any locally-offered educational training opportunities regarding participation in incentive-based programs such as, CRS and "Storm-Ready".	Existing	Flood, Nor'Easter, Hurricane, Severe Weather	1,2,3,7,13	Village	Low	Medium	General fund through existing programs	Long Term	Low	EAP
VB-8	Inventory areas of the	New and	Flood, Nor'Easter,	1,2,3,7,13	Village	Medium	Range	General	Long-	Medium	SIP,





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
(prev VB-10)	Village that are subject to repetitive losses from surface and/or groundwater flooding. Evaluate potential improvements to stormwater management and/or other municipal infrastructure which could mitigate said losses. Perform feasibility studies, develop designs and implement projects as funding becomes available.	Existing	Hurricane, Severe Weather					Fund, FEMA Hazard Mitigation Grant Funding	Term		NRP
See Action Worksheet - VB_SCDPW_LOI_310.DOC											
VB - 9 Sandy HMGP LOI#310 (NEW)	Support efforts of Suffolk County DPW to mitigate recurring groundwater flooding across a segment of the Northeast Branch with shared Village and County jurisdiction that impacts residents and businesses in the watershed area of Miller's Pond and the Northeast Branch of the Nissequogue River	Existing	Flood, Nor'Easter, Hurricane, Severe Storms, Shallow Groundwater	2, 5, 7, 8, 10,11, 13, 15, 16, 17	Village, County of Suffolk	High	High	County of Suffolk, pending Hazard Mitigation grant application	Medium	High	SIP, NRP
VB-10  (new)	Assess and prioritize needed groundwater remediation projects within the Village and investigate funding options. Implement prioritized projects as	Existing	Flood, Nor'Easter, Hurricane, Severe Storms, Shallow Groundwater. Expansive Soils	2, 5, 7, 8, 10,11, 13, 15, 16, 17	Village, Town of Smithtown, County of Suffolk	High	Range	Un-determined	Medium	High	SIP, NRP, EAP





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	funding becomes available.										
VB-11 (new)	Support any actions undertaken by the Town of Smithtown concerning post-disaster action plans and debris management plans by continuing to adopt updates to the current emergency management plans.	New and Existing	All	1,3,7,8,10,14,15	Village, Town of Smithtown	High	Low	Existing	OG	High	LPR, EAP
VB-12 (new)	Assess and prioritize needed flood prevention projects in the following risk/prone areas: Millers Pond and Nissequogue River corridor and implement improvements as funding becomes available.	Existing	Flood, Nor'Easter, Hurricane, Severe Weather	2, 7, 13	Smithtown Town Council	Range	High	Un-determined	Long-Term	High	NRP
VB-13 (new)	Inventory and evaluate all existing bridges/culverts under Village jurisdiction: develop project concepts to increase structural stability & drainage capacity of culverts significant to storm water conveyance & supporting critical evacuation and response routes.	Existing	Nor'Easters; Flooding; Shallow Groundwater	2,5,7,12,13,14,15,16	NYSDOT, NYS Parks, SCDPW, Highways, NYSDEC	Range	Range	Possible grant application	Long Term	High	SIP, NRP
VB-14 (new)	Inventory any private properties which have reported severe repetitive damages from	Existing	All	1,2,3,5,6,14,15	Village	Range	Range	Un-determined	Medium Term	Medium	SIP, EAP





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	natural hazards, for example, flooding and/or shallow groundwater. Evaluate surrounding existing conditions. Consider the costs and benefits of mitigation measures such as municipal public improvements, acquisition, relocation, and/or structural retrofits. Develop a list of project proposals, prioritized using methods including FEMA Benefit Cost Analysis										

Notes:

\*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:*

- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FMA Flood Mitigation Assistance grant program
- HMA Hazard Mitigation Assistance grant program (including FMA, HMGP, PDM)
- HMGP Hazard Mitigation Grant Program
- N/A Not applicable
- NFIP National Flood Insurance Program
- NYSOEM New York State Office of Emergency Management
- PDM Pre-Disaster Mitigation grant program
- PSEG Public Service Electric and Gas (formerly LIPA)

*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.*

*Timeline:*

*Short = 1 to 5 years*

*Long Term = 5 years or greater*

*OG = On-going program*

*DOF = Depending on funding*

*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 (NRP) – 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 9.34-12. 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
VB-1	Establish a Capital Improvement program for the village that is based on a Capital Improvement Plan, mechanism for funding projects, and process for review and update.	0	0	1	1	1	1	0	0	0	0	1	0	1	1	7	Medium
VB-2 (prev. VB-2)	Partner with Suffolk County in the development of an enhanced feasibility study to determine the most feasible retrofit to Millers Pond to enhance flood control for the village.	0	1	1	1	1	1	1	1	0	0	1	1	1	1	11	High
VB-3 (prev. VB-4)	Maintain National Incident Management System, State Emergency Management System, and Incident Command System training for Village Trustees and other critical Village personnel	1	1	1	1	1	1	1	0	0	1	1	1	1	0	11	High
VB-4 (prev. VB-5)	Continue to increase public awareness of natural hazards through use of the Village's website and other existing	0	0	1	1	1	1	1	0	0	1	1	1	1	0	9	High





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
	community outreach forums.																
VB-5 (prev VB-6)	Partner with The Town of Smithtown on their Mitigation projects that impact the Village to leverage resources, and secure multiple tangible benefits for both entities.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
VB-6 (prev VB-7)	Support county-wide initiatives identified in Section 9.1 of the Suffolk County Annex.	1	1	1	1	1	1	1	0	0	1	1	1	1	1	12	Medium
VB-7 (prev VB-9)	Participate in any locally-offered educational training opportunities regarding participation in incentive-based programs such as, CRS and “Storm-Ready”.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Low
VB-8 (prev VB-10)	Inventory areas of the Village that are subject to repetitive losses from surface and/or groundwater flooding. Evaluate potential improvements to stormwater management and/or other municipal infrastructure which could mitigate said losses. Perform feasibility studies,	0	1	1	1	1	1	0	1	0	0	1	0	1	1	9	Medium





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
	develop designs and implement projects as funding becomes available.																
VB - 9 Sandy HMGP LOI#310 (NEW)	Support efforts of Suffolk County DPW to mitigate recurring groundwater flooding across a segment of the Northeast Branch with shared Village and County jurisdiction that impacts residents and businesses in the watershed area of Miller's Pond and the Northeast Branch of the Nissequogue River	0	1	1	1	1	1	0	1	1	0	1	1	1	1	11	High
VB-10 (new)	Assess and prioritize needed groundwater remediation projects within the Village and investigate funding options. Implement prioritized projects as funding becomes available.	0	1	1	1	1	1	0	1	0	0	1	1	1	1	10	High
VB-11 (new)	Support any actions undertaken by the Town of Smithtown concerning post-disaster action plans and debris management plans by continuing to adopt updates to the	1	1	1	1	1	1	0	1	0	1	1	1	1	1	12	High





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
	current emergency management plans.																
VB-12 (new)	Assess and prioritize needed flood prevention projects in the following risk/prone areas: Millers Pond and Nissequogue River corridor and implement improvements as funding becomes available.	0	1	1	1	1	1	0	1	0	0	1	1	1	1	10	High
VB-13 (new)	Inventory and evaluate all existing bridges/culverts under Village jurisdiction: develop project concepts to increase structural stability & drainage capacity of culverts significant to storm water conveyance & supporting critical evacuation and response routes.	1	1	1	1	1	1	0	1	0	0	1	1	1	1	12	High
VB-14 (new)	Inventory any private properties which have reported severe repetitive damages from natural hazards, for example flooding and/or shallow groundwater. Evaluate surrounding existing conditions. Consider the costs and benefits of	0	1	1	1	1	1	0	0	0	0	1	0	0	0	6	Medium





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
	mitigation measures such as municipal public improvements, acquisition, relocation, and/or structural retrofits. Develop a list of project proposals, prioritized using methods including FEMA Benefit Cost Analysis																

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

- = Prioritization remained the same as the 2008 HMP.





---

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

---

The Village has comprehensively identified future needs to better understand their risks and vulnerabilities in the mitigation initiatives described in Table 9.34.12.

To fully implement the floodplain management program in the Village of The Branch, additional areas in the Northeast Branch of the Nissequogue River, Nissequogue River and its tributaries need to be more fully studied and mapped by FEMA. These areas were not studied during the most recent FEMA Flood Insurance Study in 2009, and are on unprinted map panels. Flooding impacts in these areas are unknown and there could be unmet needs for additional flood insurance policies. As a result, risk assessment and analysis contained elsewhere in this plan may be under-estimated due to a variety of data collection and/or modeling constraints. The Village will continue to partner with local, State and Federal agencies to support local data collection and greater understanding of the hazards and risks pertaining to the waterbodies within their borders.

Many of the solutions to the Shallow Groundwater Hazard were identified by a Suffolk County report entitled Drainage Improvements including Groundwater Relief created by H2M Group in March of 1980. It would be helpful if agencies with a greater regional reach than the Village could ensure that this plan continues to be relevant, and evaluate the need for an update incorporating current loss data and developmental patterns.

### **9.34.8 Hazard Area Extent and Location**

---

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

### **9.34.9 Additional Comments**

---

None at this time.



Figure 9.34-1. Village of The Branch Hazard Area Extent and Location Map 1

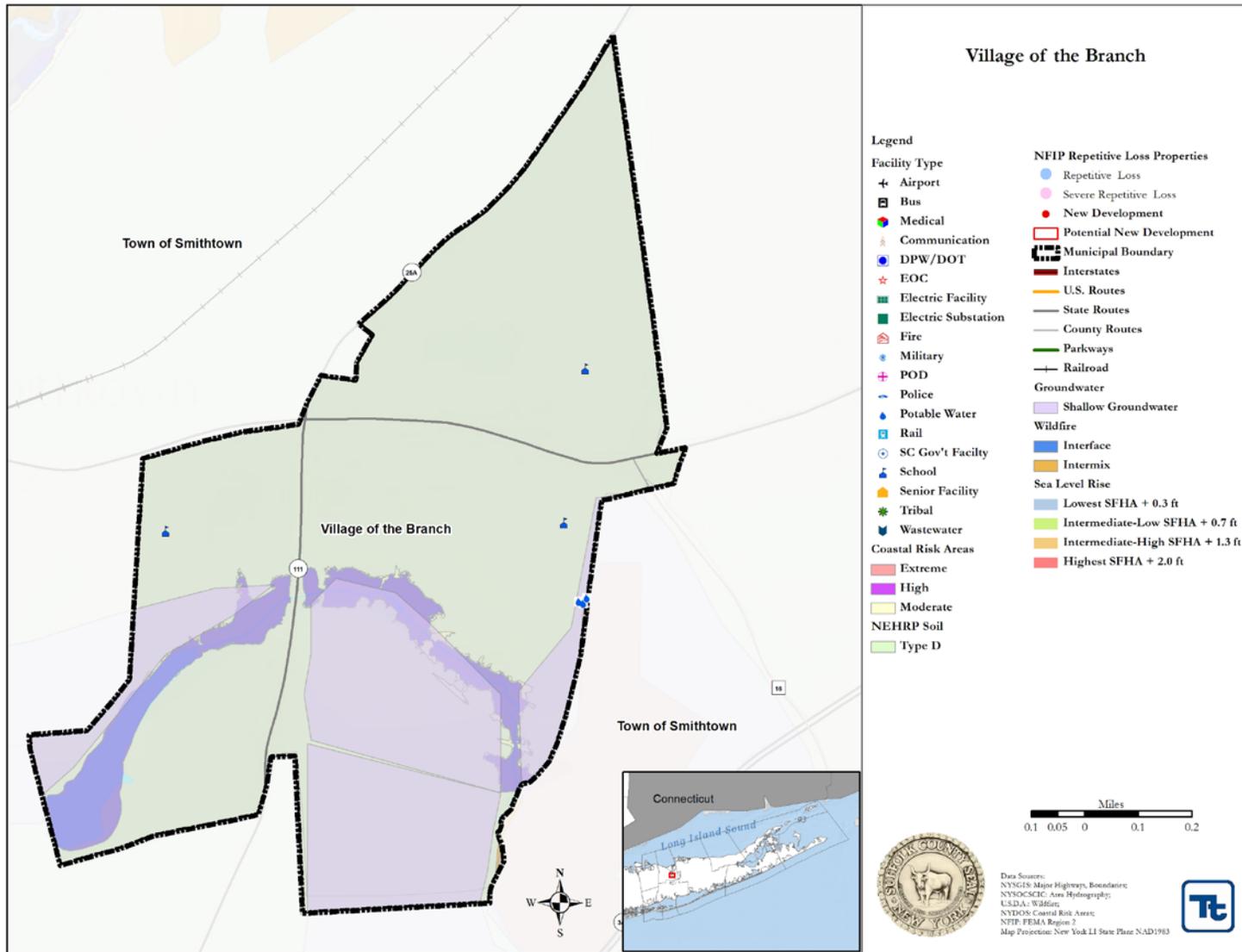
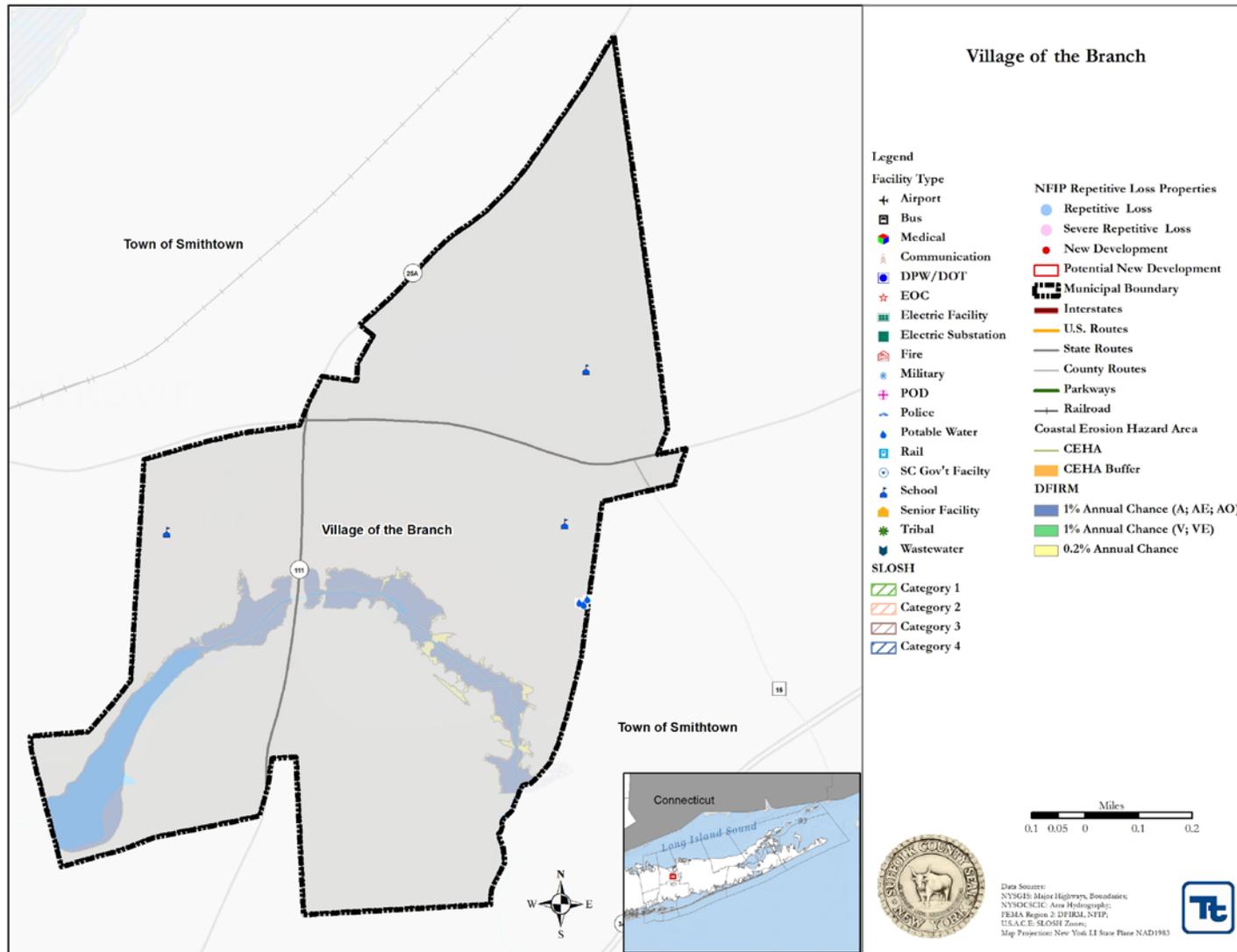




Figure 9.34-2. Village of The Branch Hazard Area Extent and Location Map 2





### Mitigation Action Worksheet

Please complete one sheet per action/project with as much detail as possible, using the guidance beginning on page 3 and examples provided by FEMA.

**Name of Jurisdiction:** County of Suffolk/ Village of the Branch  
**Number:** Sandy HMGP LOI #: 310, State #1536  
**Mitigation Action/Initiative:** CP 8710, Northeast Branch Nissequogue River Restoration Project, from the vicinity of Clearbrook Drive to Miller's Pond

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Shallow Groundwater, Flooding, Nor'Easters, Severe Storms
<b>Specific problem being mitigated:</b>	<p><b>Overview:</b> The proposed project is necessary to mitigate groundwater flooding that impacts residents and businesses in the watershed area of Miller's Pond and the Northeast Branch of the Nissequogue River. The Northeast Branch is a perennial stream whose baseflow is comprised mostly of groundwater, while stormwater inputs from increasing urbanization within its watershed add significant additional flows during storm events.</p> <p>This hazard was described in detail in the Suffolk County Hazard Mitigation Plan of 2008, and was recognized as its own unique hazard due to the topography and poorly draining soils prevalent within the Town. The flooding has impacted residents of the Village of the Branch and nearby Town of Smithtown since the late 1970's. The problem continued, with years of 1980, 1984, 1985, 1989, 1990, 1991, 1998, 1999, 2006, and 2007 containing periods of high rainfall accumulation. Then, severe flooding occurred during the Federally declared disaster of March 2010 when heavy rains inundated the area. (Major disaster declaration FEMA-1899-DR-NY). At least 268 homes are known to have experienced damages and another 662 are identified as likely to have been affected, resulting in a report to FEMA of an estimated total of \$6.71 Million in damages relating to the two flooding events in March 2010 alone.</p> <p><b>Studies and reports:</b>            In 1979, the first formal recognition by the Town of Smithtown of the Shallow Groundwater Hazard occurred. The Town conducted numerous public hearings and internal studies of the most severely affected residents. The results of the Town's effort to document the Hazard was that the Town was able to document over \$875,000 in damages to the 122 most severely affected homes throughout the Town. The damage and loss of use to residents' homes was so severe that the Town of Smithtown Tax Assessor's department received and approved tax grievances totaling a reduction of \$63,000 in assessed value of the Town. The Town has substantial documentation of these efforts. In the years since, the Town of Smithtown has continued to document and analyze the problem and properties affected.</p>





### **1980 Study**

This area was the subject of a 1980 study entitled “Drainage Improvements including Groundwater Relief” prepared by the consulting engineering firm, Holzmacher, McLendon & Murrell, P.C. (H2M), for the Suffolk County Department of Public Works. The study identifies specific problem areas in the Northeast Branch and notes that the type, duration, cause, and history of the flooding problems in each of these areas varies. Mr. Ted Sanford, Town Engineer for Smithtown in May 2007, stated that the areas of concern and possible solutions identified in the H2M study were relevant at that time. The continued experience of the Town Engineering Department, now under the leadership of Town Engineer Mark Riley, confirms that this original H2M Groundwater Study continues to be a relevant and valuable resource to aid the Town in its efforts to combat the Shallow Groundwater Hazard. Subsequent studies completed by H2M in 2013 (described below) confirm that the problems persist and provide the basis for the proposed action.

The 1980 H2M Study summarized groundwater flooding problems in the Northeast Branch vicinity as follows:

-As of the date of the study, groundwater levels were found to be quite high throughout the area, reflecting high amounts of precipitation over the previous five years.

-A development boom in the late 1960s took place when water levels were very low as a result of severe drought in the early to mid 1960s. This drought period, from 1960 to 1966, was the most severe drought recorded on Long Island, and groundwater levels dropped Island-side as much as 5 to 10 feet. In this area, where groundwater levels are typically among the highest on the Island, the drop in water table actually exceeded 10 feet in places.

-As recovery of groundwater levels occurred steadily from the late 1960s through the 1970s, certain areas began to experience groundwater-related flooding problems. High levels of precipitation in 1978 and 1979 resulted in hundreds of homes and many roadways being affected by groundwater-related flooding. While brief periods of low precipitation may make existing problems seem to subside, these problem areas remain and can be impacted when precipitation returns to normal conditions (H2M, 1980).

-The Northeast Branch serves to drain stormwater and groundwater from its watershed. The waterway’s ability to efficiently convey excess groundwater to downstream waters depends on the condition of the stream itself. Over the last 30+ years the Northeast Branch (including Miller’s Pond) has been subjected to high silt and sediment loads from surrounding residential neighborhoods and





roadways. The bottom profile of the waterway has become blocked by sediment, and debris (fallen trees, leaves, trash) has accumulated. These deposits have led to flow restrictions, decreased hydraulic capacity of culverts and streams, alteration of the natural hydraulic grade, and further degraded the stream's capacity to convey groundwater away from the area. These conditions contribute to the groundwater hazard. Further, the culverts currently in place are of insufficient capacity to allow for optimal flows.

### **2013 Study**

This report, again prepared by the firm H2M for the Suffolk County Department of Public Works, provides further analysis and presents a series of recommendations for improving the waterway's ability to convey stormwater and excess groundwater away from the affected area. It confirms that the area surrounding Millers Pond and the Northeast Branch continues to be prone to frequent street flooding and residential basement flooding due to the inability of existing drainage systems to convey storm water runoff. The groundwater in the area has been artificially elevated due to a variety of man-made elements, including the dam and spillway on the east side of Maple Avenue that impounds Millers Pond, accumulation of sediment and debris within the pond from storm water discharges and inefficient elevations and sizing of upstream culverts. Stream flow has also been reduced accordingly, which compromises the effectiveness of roadway drainage systems, further contributing to area flooding. Additionally, the accumulation of sediment and debris behind the spillway in Millers Pond has reduced the depth of water in the pond and adversely impacted the environmental conditions.

Hydrologic and hydraulic analysis of the 8000 LF segment of the Northeast Branch (that includes Millers Pond), found that:

"The Northeast Branch is generally 10-12 feet wide and flows at a depth of approximately 18 inches. However, downstream from NYS Route 111, it becomes braided and much shallower. Flow of water through this area is visibly slower and more shallow, although spread out over a much wider area. The elevation of the stream channel in this area is approximately 18 inches higher than the stream channel upstream from NYS Route 111. This condition causes an impoundment of water that contributes to higher groundwater elevations in the area. In addition to this impoundment, the following culvert crossings also restrict the flow along the Northeast Branch upstream from Millers Pond:

- NYS Route 347: (1) 36" concrete pipe, (1) 42" concrete pipe, (1) 48" concrete pipe
- Branch Drive: (3) 36" concrete pipes
- Terrace Lane: (3) 36"x54" corrugated metal pipes
- NYS Route 111: (2) 48"x84" concrete box culverts





The results derived by the computer model for the watershed and each of the four culvert crossings identified the existing culverts at Branch Drive and Terrace Lane were not sufficiently sized to convey the runoff from the 50 year design storm.” Please see the full report for additional detail on the study area.

**Successful prior improvements to adjacent segment of Northeast Branch:**

H2M, under contract with the Town of Smithtown, has previously designed two separate projects at upstream locations on the Northeast Branch (adjacent to but not included in the proposed scope of work) to remove accumulated sediment from the stream channel to increase the flow of water, decrease water surface elevations and lower groundwater elevations. It should be understood that the goal of all the related stormwater improvements undertaken in the past thirty years has been to increase the capacity of the Town’s man-made stormwater infrastructure and restore the natural drainage capacity of the Town’s waterways to more efficiently and quickly convey stormwater away from the areas impacted by the Shallow Groundwater Hazard. The Town’s success has been measured in substantial reductions to the frequency and duration of residents’ reported use of their sump pumps. For example, the residents in direct proximity to the recent project sites used to pump continuously, 24 hours/day for weeks on end after even minimal rainfalls. Now, many residents report their pumps do not even kick on unless they are experiencing a rainfall of over 1.5 inches. As 90% of the rainfalls in New York State on an annual basis are approximately 1.3 inches or less, this reflects a very substantial reduction in damages.

The success of these projects in reducing the damages experienced by area residents prompted Suffolk County to continue with this concept on downstream areas of the Northeast Branch, including the segment of the waterway that is the subject of this mitigation action. The Suffolk County Department of Public Works retained H2M and Land Use Ecological Services (LUES) to assess the feasibility of making various improvements to Millers Pond and the Northeast Branch that are intended to provide a positive impact on the local groundwater conditions, street flooding, residential basement flooding and overall water quality of the pond. The final report for this effort, titled “Evaluation of Millers Pond and Northeast Branch of Nissequogue River”, was completed in October 2013.

**Relevance to regional efforts to mitigate shallow groundwater hazard; multijurisdictional effort:**

The segment of the Northeast Branch targeted in this project is under jurisdiction of the Village of the Branch and of the County of Suffolk. Town of Smithtown has no authority to undertake the mitigation action addressed on this worksheet, however, there many additional Town residences downstream of this segment that would





	benefit from similar projects, but until this segment has been restored to a functioning hydraulic grade, the next segment cannot even be engineered. Therefore this project will not only mitigate the hazard for the affected immediate community; it also represents an incremental advancement toward supporting design and implementation of future mitigation projects.
--	---

<b>Evaluation of Potential Actions/Projects</b>	
---	--

<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	<p>1. No action. The consequences of not implementing this project are that an estimated total of 1,355 homes will continue to experience damages relating to this hazard. The damages will continue to occur with the same regular frequency. Basement flooding, septic system failure, and the related repair costs, as well as roadway flooding and related costs for pumping and road repair will continue to occur.</p> <p>The Town of Smithtown has no authority to undertake this project, however, there are over 500 Town residences downstream of this segment that would benefit from similar projects, but until this segment has been restored to a functioning hydraulic grade, the next segment cannot even be engineered. Therefore by not advancing this project, it will be impossible for the Town of Smithtown to engineer any solution that would mitigate the hazard for these additional 500 homes.</p> <p>2. To address basement flooding and non-functioning septic systems throughout the project area, individual homes and on-site septic systems could potentially be raised above historic high groundwater elevations. Elevating the homes would require temporarily lifting the home above the foundation and extending the existing foundation wall. Basement floors would then need to be replaced and constructed at higher elevations. Modifications to stairs and plumbing/electrical systems would be required to maintain use of the basement space. Existing on-site septic systems would need to be removed and replaced with shallower systems that maintain required clearance above groundwater elevations. In order to maintain similar capacity, the new systems would need to occupy larger footprints. A conservative estimate is that 160 homes have experienced basement flooding and nonfunctioning septic systems as a result of elevated groundwater levels during storm events. The costs for these improvements for 160 homes are estimated in excess of \$13,000,000. This option was not selected due to excessive cost and also the need to coordinate with 160 different property owners to facilitate this work. Additionally, sufficient space may not be available on each property to expand the footprint of each on-site septic system.</p>
--	--





3. Stream bank excavation. Elevated groundwater causes basement flooding and impacts residential on-site septic systems on properties surrounding the Northeast Branch. These conditions are worsened during storm events when water surfaces in the Northeast Branch increase due to storm water runoff. The original floodplain for the Northeast Branch has been impacted due to surrounding development and modifications to the stream channel. To limit the increase in water surface elevation in the Northeast Branch (and subsequent groundwater) during storm events, existing stream banks can be excavated to provide additional floodplain storage. Construction of this modification is estimated at approximately \$2,300,000. This option was not selected due to the significant environmental impact to over 6 acres of existing hardwood swamps, wetlands and ecological communities surrounding the Northeast Branch and the need to acquire easements from approximately 30 property owners.

**Action/Project Intended for Implementation**

**Description of Selected Action/Project**

**Objective 1: Sediment Removal from three segments of the Northeast Branch.** This process entails removal of anthropogenic sediment which impedes the flow of storm water from a length of the Northeast Branch of approximately 350 feet downstream of Rte. 111. In addition, the NYS Department of Environmental Conservation (NYSDEC) indicated that they would allow us to remove some of the non-anthropogenic sediment if it improved stream flow. As a result, we are also proposing to excavate 12-18 inches of material from the stream bed for the first 350 feet south of Route 111. There are also a couple of localized areas within 400 feet upstream from Rte 111 where the stream bed is high and impedes flow. We are proposing to excavate those areas as well. These areas are identified on the plans attached to this application.

Removal of anthropogenic sediment will be accomplished through the use of small, high-capacity portable suction devices to remove sands and silts within stream channels. This strategy is modeled on work recently completed on an adjacent segment of the Northeast Branch of the Nissequogue River. The methodology used to perform the restoration is an environmentally sensitive solution called sand wanding and does not require staging heavy equipment on stream banks, which could damage plants and habitat area. These systems are designed to remove particles ranging from very coarse sands to silts and clays, but leave stones and gravels behind and are particularly effective for road sediments from gravel-based trout streams. No excavation work will be allowed outside of existing stream banks.

Sand wanding consists of a float-mounted pump system with heads designed to shoot water from a 13 HP pressure pump into the sediment to loosen sediments. A 13 HP suction pump then pulls the





sediment/water mixture away to a dewatering area through 3” pressure hosing. Material will then be dewatered and carted away for disposal.

Removal of this sediment will lower the stream bed and subsequent water surface elevation approximately 12 inches, which will provide a positive impact to area groundwater levels. Additionally, removal of this sediment will improve stream flow and reduce the potential for future deposition of sediment.

**Objective 2: Culvert replacement.** Upstream improvements will include the removal and replacement of the undersized culvert crossings at Branch Drive and Terrace Lane. The culverts at both locations include a series of three parallel pipes that are insufficiently sized. The triple barrel pipe configuration at each location also tends to trap debris, which further reduces the culvert capacity, increases the impoundment of storm water during rain events and subsequently adds to the increased groundwater levels. The pipe culverts at both Branch Drive and Terrace Lane will be demolished and replaced with 12’x3’ and 12’x4’ box culverts, respectively. The larger culverts will provide for a natural streambed under the culvert, and be less likely to trap debris that would impact the flow capacity of the Northeast Branch.

The greatest factor contributing to homeowner damages is that stormwater from very small rain events, sometimes 1” or less of rain, cannot be efficiently and quickly conveyed away from homes, thus resulting in prolonged basement pumping and flooded septic systems. By increasing the hydraulic capacity of the culverts, and by restoring a consistent hydraulic grade, the stream will convey more stormwater, more quickly away from homes. The two prior projects completed by the Town of Smithtown (on adjacent segments of the waterway) demonstrated that residents who used to pump either every day or in the case of less than 1” of rain fall, now typically pump only in the case of rainfalls exceeding 2”. Given that 90% of all rainfalls in the State of New York are less than 2”, this is a very significant reduction in damages.

Currently, it is estimated that 220 homes will receive direct benefits from this project; 326 will receive moderate benefits, and 489 will receive minor benefits. The Town of Smithtown has prepared highly detailed maps that provide a clear picture of the extent of the flood hazard.

**Status of development process.** The project area has been the subject of intensive study since the 1980’s, as discussed above. Detailed design documents are complete. The NYS Department of Environmental Conservation (DEC) has been engaged in the evaluation and design process, and has approved similar work on an adjacent segment of the Northeast Branch (after which this project is





	<p>modeled) that has been successfully completed. A DEC permit application for this scope of work is expected was submitted in November 2013.</p> <p>The segment of the Northeast Branch targeted in this project is under jurisdiction of the Village of the Branch and of the County of Suffolk. The Village and the County are working in partnership to advance this mitigation action. The Town of Smithtown has provided extensive support in this effort.</p>
<b>Mitigation Action/Project Type</b>	SIP & NRP
<b>Objectives Met</b>	2, 3, 5, 7, 14, 15, 16, 17
<b>Applies to existing structures/infrastructure, future, or not applicable</b>	Existing Structures
<b>Benefits (losses avoided)</b>	<p>Property and related damages associated with groundwater flooding experienced by residential and commercial property owners (e.g. replace damaged utilities, repair damaged drywall and interior finishes, purchase, install and run pumps, clean-up, mold remediation, replace damaged personal items, lost work time to clean/pump, repair/replace damaged septic systems, etc.).</p> <p><b>Losses avoided \$3,637,438</b> as determined by Benefit Cost Analysis completed by NYS Office of Emergency Management on December 1, 2010. This figure will increase significantly when the Benefit Cost Analysis is updated to encompass subsequent documented damages.</p>
<b>Estimated Cost</b>	\$1,100,000
<b>Priority*</b>	High
<b>Plan for Implementation</b>	
<b>Responsible Organization</b>	Suffolk County Department of Public Works
<b>Local Planning Mechanism</b>	County of Suffolk Capital Program
<b>Potential Funding Sources</b>	HMGP; local match
<b>Timeline for Completion</b>	Short
<b>Reporting on Progress</b>	
<b>Date of Status Report/ Report of Progress</b>	<p>Date: 3/10/2014</p> <p>Progress on Action/Project:            Preliminary Engineering is now complete. Final Design Plans and Construction Bid Documents are nearly complete. Construction Letting will be scheduled as funding becomes available.</p>

\* Refer to results of Prioritization (page 2)





**Prioritization**

**Number:** Sandy HMGP LOI #: 310  
**Mitigation Action/Initiative:** CP 8710, Northeast Branch Nissequogue River Restoration Project, from the vicinity of Clearbrook Drive to Miller’s Pond

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	0	Project will have minimal impact on safety but may have some minor health benefits for affected residents
<b>Property Protection</b>	1	Project will help prevent against flood damage to residential properties
<b>Cost-Effectiveness</b>	1	Flood damage protection will greatly reduce property damage costs
<b>Technical</b>	1	Yes, Plans based on detailed hydraulic analysis and engineering
<b>Political</b>	1	This project has support of County and Village elected officials, as well as community civic groups and Town of Smithtown officials
<b>Legal</b>	1	The County and the Village of the Branch have implementation authority by partnering together
<b>Fiscal</b>	0	Construction funds not yet secured
<b>Environmental</b>	1	The project will provide some improvement to stream habitat and has secured a NYSDEC Permit
<b>Social</b>	1	The project will produce quality of life benefits for some residents who basement flooding and pumping will be reduced
<b>Administrative</b>	0	The Village will rely on SCDPW and the Town of Smithtown for implementation assistance
<b>Multi-Hazard</b>	1	This project will reduce the effects of multiple hazards, including flooding and shallow groundwater
<b>Timeline</b>	1	Yes, design is nearly complete and construction can be fast-tracked when funding is secured
<b>Agency Champion</b>	1	Suffolk County Legislator John Kennedy has been a steadfast advocate for this project. The Village leadership supports the project
<b>Other Community Objectives</b>	1	Project will advance Water Quality Improvement objective, preserve open spaces, increase quality of stream habitat and is a Capital Improvement that will benefit area residents
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	HIGH	



