



## 9.12 Village of Patchogue

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

### 9.12.1 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
Paul Pontieri, Mayor 14 Baker Street Patchogue, NY 11772 (631) 475-4300 <a href="mailto:ppontieri@patchoguevillage.org">ppontieri@patchoguevillage.org</a>	P. Sarich, Emergency Manager 14 Baker Street Patchogue, NY 11772 (631) 475-4300 <a href="mailto:psarich@patchoguevillage.org">psarich@patchoguevillage.org</a>

### 9.12.2 Municipal Profile

This section provides a summary of the community.

#### Population

According to the U.S. Census, the 2010 population for the Village of Patchogue was 11,798.

#### Location

The Village of Patchogue is a residential community that encompasses an area of about 2.5 mi<sup>2</sup> (6.5 km<sup>2</sup>) (with .3 mi<sup>2</sup> under water) on the south shore of eastern Long Island in the Town of Brookhaven, Suffolk County, N.Y. The village lies along Great South Bay and is bordered by Tuthills Creek to the west, Bay Avenue to the east, and N.Y. State Route 27 (Sunrise Highway) to the north.

#### Brief History

Patchogue’s recorded history dates from 1664. European settlers were drawn to the area because of waterpower generated by the flowing streams and the adjacent port which provided safe harbor. Starting in the 1750’s mills were constructed on Patchogue’s waterways, and by the mid-1800’s, Patchogue was a thriving seaport with oyster, fishing, and shipbuilding industries and mills on both the Patchogue River and the Great South Bay. Patchogue was a U.S. port of entry until 1922. The Long Island Rail Road arrived in 1869 and brought thousands of summer visitors from New York City. By the end of the 19<sup>th</sup> century Patchogue had over 1,000 hotels rooms. With the extension of the Long Island Rail Road to Montauk and the advent of automobiles, the tourism industry declined. The Village then became one of the first major commercial centers in Suffolk County and remained a shopping destination for many years. The downtown declined with the establishment of malls and box stores. The Village has become an entertainment center starting with the renovation of the Patchogue Theatre for the Performing Arts in 1997 and continuing with the opening of many restaurants, music venues, and bars. From 2006 to 2012 over 225 new residential units were built in Patchogue. There are currently another 456 units under construction to be completed by the end of 2014. The industrial uses along the River have diminished and the River is now a recreation area with marinas and restaurants with attendant bars and entertainment.

#### Governing Body Format

The Village of Patchogue was incorporated in 1893 and is governed by a Mayor and six Trustees serving four year terms.





### Growth/Development Trends

The following table summarizes major residential/commercial development and major infrastructure development that are identified for the next five (5) years in the municipality. Refer to the map in section 9.12.8 of this annex which illustrates the hazard areas along with the location of potential new development.

**Table 9.12-1. Growth and Development**

Property Name	Type (Residential or Commercial)	Number of Structures	Location (address and/or Parcel IDs)	Known Hazard Zone*	Description / Status
Riverwalk	Residential	163 Units/ 16 Buildings	West Avenue Sec. 204-13-2 Lots 12,13,16.3,p/o16.4,18 Sec. 204-13-3 Lots 9 - 14, 16	Flood Zone AE5, Flood Zone X	Condominiums / Active
New Village	Residential	291 Units/ 5 Buildings	1 West Main Street Sec. 204-9-1-44, Sec. 204-9-5 14- 18,20,22,24,25.1,25.2	Flood Zone X	Rental apartments/ Retail/Active

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

### 9.12.3 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.

**Table 9.12-2. Hazard Event History**

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
February 8-9, 2013	Snowstorm	DR-4111	Yes- PA (Public Assistance)	Roof collapsed on an empty building at the corner of Main Street and Rider Avenue.
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA	Debris damage to village roads & village trail system causing closure. Flood damage to 50 ft. foot bridge in trail system pending replacement.
September 7-11, 2011	Remnants of Tropical Storm Lee	EM 3341 DR 4031	No	No damage reported
August 26 – September 5, 2011	Hurricane Irene	EM 3328 DR 4020	Yes – IA and PA	Extensive debris damage, loss of electrical and telephone to village hall and a large portion of the village peninsula for upwards of 10 days.
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	No damage reported.

EM Emergency Declaration (FEMA)





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

### 9.12.4 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 Patchogue. 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 Patchogue.

**Table 9.12-3. Hazard Risk/Vulnerability Risk Ranking**

Hazard Ranking	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard <sup>a, c, e</sup>	Probability of Occurrence <sup>b</sup>	Risk Ranking Score (Probability x Impact)
6	Coastal Erosion	RCV in CEHA: \$0	Occasional	12
4	Drought	Damage estimate not available	Occasional	24
4	Earthquake	500-Year MRP: \$128,618,913 2,500-Year MRP: \$2,065,631,997	Rare	24
7	Expansive Soils	Damage estimate not available	Rare	6
5	Flood	1% Annual Chance: \$13,039,274 0.2% Annual Chance: \$24,710,413	Frequent	18
5	Groundwater Contamination (natural)	Damage estimate not available	Frequent	18
2	Hurricane	Category 1 SLOSH: \$44,858,184 Category 2 SLOSH: \$724,382,408 Category 3 SLOSH: \$1,965,087,148 Category 4 SLOSH: \$3,322,688,614	Occasional	36
7	Infestation	No measurable impact to property	Rare	6
1	Nor'Easter	100-Year RCV: \$1,725,996,479 500-Year RCV: \$1,596,906,895	Frequent	48
3	Severe Storm	100-Year RCV: \$1,725,996,479 500-Year RCV: \$1,596,906,895	Occasional	32
1	Severe Winter Storm	1% of GBS: \$32,451,893 5% of GBS: \$162,259,463	Frequent	48
7	Shallow Groundwater Flooding	Damage estimate not available	Rare	6
6	Wildfire	Estimated RCV in Interface/Intermix: \$9,729,976	Occasional	12

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

### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the municipality.

**Table 9.12-4. 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-Boundary (3)	# Policies Outside the 500-year Flood Hazard (3)
Village of Patchogue	438	368	\$12,576,675	43	4	206	30	202

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 9.12-5. 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>
Davis Park Ferry	Ferry	V	X						
Fire Island National Seashore	Ferry	A	X						
Watergate Apts	Wastewater	A	X						
Patchogue Village Stp	Wastewater	A	X						

Source: HAZUS-MH 2.1

Note: T = Town; V = Village.





*x = Facility located within the 0.2-percent annual chance flood boundary.*

*Please note it is assumed that wells have electrical equipment and openings are three-feet above grade.*

*(1) HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).*

*(2) In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type.*

### Other Vulnerabilities Identified by Municipality

None at this time.

### 9.12.5 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 9.12-6. 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	State	Building and Housing	Code for the Village of Patchogue §205-1
Zoning Ordinance	Y	Local	Building and Housing	Code
Subdivision Ordinance	N			
Special Purpose Ordinances	M			
Growth Management	Y	Local	Planning Board	Village Code §435-82 (12/23/1974)
Floodplain Management / Basin Plan	Y	Local	Building & Housing	Village Code Chapter 210
Stormwater Management Plan/Ordinance	Y	Local		Village Code Chapters 370, 369 (1/26/2009)
Comprehensive Plan / Master Plan	N			
Capital Improvements Plan	N			
Site Plan Review Requirements	Y	Local	Building & Housing	Village Code §435-82
Habitat Conservation Plan	N			
Economic Development Plan	N			
Emergency Response Plan	Y	Local	Mayor's Office	An Emergency Response Plan has been in place since 2005.



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.)
Shoreline Management Plan	N			
Post Disaster Recovery Plan	N			
Post Disaster Recovery Ordinance	N			
Real Estate Disclosure req.	N			
Other (e.g. steep slope ordinance, local waterfront revitalization plan)	Y	Local		A draft of the LWRP has been completed. The Village is currently incorporated the final comments from the NYS DOS.
NFIP Flood Damage Protection Ordinance	Y	Local	Building and Housing	Village Code Chapter 210. Adopted 4/27/1998 "Flood Damage Prevention"
Freeboard	Y	Local	Building and Housing	Village Code Chapter 210, Article V State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other
Cumulative Substantial Damages	N			
Coastal Erosion Control Districts	N			

### Administrative and Technical Capability

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

**Table 9.12-7. 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	N	
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	N	
Planners or engineers with an understanding of natural hazards	N	
NFIP Floodplain Administrator	Y	Chief Building Inspector is the NFIP Floodplain Administrator
Surveyor(s)	N	
Personnel skilled or trained in "GIS" applications	Y	DPW staff is trained in "GIS"
Scientist familiar with natural hazards in the municipality.	N	
Emergency Manager	N	
Grant Writer(s)	N	
Staff with expertise or training in benefit/cost analysis	N	
Professionals trained in conducting damage assessments		



### Fiscal Capability

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

Table 9.12-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	N. Allocation is insufficient to address mitigation needs
Capital Improvements Project Funding	Y. Village Board is responsible
Authority to Levy Taxes for specific purposes	N
User fees for water, sewer, gas or electric service	Y. Village Board; Sewer fees
Impact Fees for homebuyers or developers of new development/homes	Y. Village Board
Incur debt through general obligation bonds	Y. Village Board
Incur debt through special tax bonds	N
Incur debt through private activity bonds	N
Withhold public expenditures in hazard-prone areas	N
Mitigation grant programs	Y. Village Board
Other	Don't Know

### Community Classifications

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

Table 9.12-9. Community Classifications

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

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: Peter Sarich

#### Program and Compliance History

Village of Patchogue joined the NFIP on November 3, 1982, and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The community's Flood Damage Prevention Ordinance (FDPO), found at Chapter 210 of the local code, was last updated on April 27, 1998.

As of January 31, 2014 there are 438 policies in force, insuring \$121,270,300 of property with total annual insurance premiums of \$531,484. Since January 31, 2014, 368 claims have been paid totaling \$12,576,675. As of January 31, 2014 there are 43 Repetitive Loss and 4 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

As of January 31, 2014 there are 438 policies in force, insuring \$121,270,300 of property with total annual insurance premiums of \$531,484. Since January 31, 2014, 368 claims have been paid totaling \$12,576,675. As of January 31, 2014 there are 43 Repetitive Loss and 4 Severe Repetitive Loss properties in the community.

Approximately 75-100 homes, including apartment buildings, were damaged during Superstorm Sandy. Twenty-two received Substantial Damage (SD) determinations. SD determination letters were based upon professional engineer/architect assessments of damaged properties. All 22 SD properties are interested in mitigation along with 50 additional property owners inquiring about mitigation project potential. Those completing mitigation projects are using Increased Cost of Compliance (ICC), New York Rising, and private funding.

#### Planning and Regulatory Capabilities

The community's Flood Damage Prevention Ordinance (FDPO) was last updated on April 27, 1998, and is found at Chapter 210 of the local code.

The Village of Patchogue's floodplain management regulations and ordinances meet FEMA and New York State minimum requirements. The definition of the height of a building in flood zones was altered following Sandy. Those having to elevate structures could do so without being penalized for exceeding



height maximums. There are also fast track site plan review requirements in the floodplain. Following Superstorm Sandy, all fees related to compliance with floodplain construction were waived.

### **Administrative and Technical Capabilities**

The community FDPO identifies the Building Inspector as the local NFIP Floodplain Administrator, currently Peter Sarich, 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; one additional person coordinates assembling files for flood damaged properties.

Records kept reflect properties damaged by flooding and those property owners who are interested in mitigation.

Duties and responsibilities of the NFIP Administrator are record keeping, permit review, and inspections.

Peter Sarich feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. Peter Sarich is not certified in floodplain management, however attends regular continuing education programs for code enforcement.

SD determination letters were based upon professional engineer/architect assessments of damaged properties. Twenty-two properties received Substantial Damage (SD) determinations following Superstorm Sandy.

### **Public Education and Outreach**

Duties and responsibilities of the NFIP Administrator are record keeping, permit review, and inspections. Education and outreach is not provided.

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

Lack of funding is the primary barrier to running a more effective floodplain management program in Patchogue. Additional support and involvement from New York DEC would be beneficial as well. Further education and training on floodplain management and Community Rating System (CRS) would be welcomed and appreciated. Currently, Patchogue is not a CRS community.

### **Integration of Hazard Mitigation into Existing and Future Planning Mechanisms**

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

- **Land Use Plans** – develop a Marina Property Protection Plan to protect shore front properties from hazard impacts. Information on hazard areas and relevant mitigation strategies from the HMP will be incorporated.
- **Land Use Plans** - develop Local Waterfront Revitalization Plan to improve safer waterfront usage, reduced river front flooding, contribute to improved water quality, and preserve natural areas and fish habitats. Information on hazard areas and mitigation measures from the HMP will be incorporated into the plan.



### 9.12.6 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 9.12-10. Past Mitigation Initiative Status

Description	Status	Review Comments
VPTCH-1: Update Emergency Response/Operations Plan by conducting an evaluation of the current working copy of the Plan, interfacing with local, State and Federal agencies, preparing recommendations and the revision of the Plan.	No Progress	Change in personnel caused postponement of update. The action is still relevant. Revise anticipated completion date.
VPTCH-2: Develop a New Hazard Warning System to interface with local, State, and Federal agencies and be compatible with other plans currently being used in adjacent areas.	No Progress	No accomplishments Lack of funding was an obstacle. The action is still relevant; completion date to be revised.
VPTCH-3: Upgrade Emergency Response Program to update and expand with current information.	Unknown	
VPTCH-4: Critical Evacuation Facilities Upgrade Evaluation by measuring current capabilities against a predetermined set of requirement delineated in the Village HMP.	Unknown	
VPTCH-5: Prepare a Public Outreach Program through informing, educating, soliciting input and advising community members, elected officials, property owners and stakeholders about actions proposed or planned by the Village.	In Progress	A Storm Water Education Outreach committee has been formed and public outreach is continuous. The Greater Patchogue Community Organization Active in Disaster has been formed and is coordinating outreach with the Village.
VPTCH-6: Website Expansion for Public Information through interfacing with Village officials, the public and stakeholders in addition to Computer programming, writing and organizing the web pages, inputting information, and testing the draft website.	Continuous	The Village website has been updated and pages dedicated to storm water pollution reduction information; resources for residents. Work is ongoing and relevant. Funding needed for continued training of webmaster.
VPTCH-7: Pumping Stations, Sewage Facility Protection to reduce the impacts on the sewage treatment plant, and the plants four lift stations located in the Villages roadways and to substantially reduce the amount of waste that over flows during storms, reducing the health hazard risk during storms.	In Progress, 50% Completed	Replaced and upgraded the East Main Street pump station; constructed a sewage bypass reducing flow into the Sephton Street pump station; expanding its life and capacity; and there are plans in spring of 2014 to start construction on a new gravity line on South Ocean Avenue diverting the flow south and eliminating the pump station.
VPTCH-8: Upgrade and Expand Wastewater Treatment Plant to protect homes, people, and waterways from septic overflow.	Completed	Plant was expanded from .5 mgd to .8 mgd with capability of going to 1.2 mgd. Treatment was upgraded to tertiary treatment with denitrification and sludge thickening. Not carried over.





Description	Status	Review Comments
VPTCH-9: Tree Hazards Survey, Assessment and Plan to reduce potential damages caused by fallen or wind blown trees or branches.	No Progress	Still relevant the project was not undertaken due to lack of funding.
VPTCH-10: Community Rating System Program Certification by designation of a program coordinator, preparation of the program plan, public notification, and submission of the Program for approval and rating to FEMA, and the Insurances Services Organization (ISO).	No Progress	The Village is reviewing the requirements for CRS Program Certification. Funding would be needed for preparation of the program plan and hiring a program coordinator. This is still relevant.
VPTCH-11: Post-Disaster Recovery and Reconstruction Plan to develop procedures for inspecting properties and identifying damage before reoccupation.	In Progress	Chief Building Inspector serves as the Flood Plain Manager for the Village of Patchogue and follows FEMA procedures regarding inspections for substantial damage and repairs necessary prior to reoccupation. A formal plan has not been developed.
VPTCH-12: Emergency Power Generator for Village Hall to responses to hazards facing the community and maintain communications during a hazard event.	In Progress, 30% Completed	Village has signed a contract to have the emergency generator at Village Hall replaced and the installation at the Parks and Recreation headquarters as well as DPW. Installation to be completed in Spring of 2014.
VPTCH-13: New Breakwater for Erosion Protection on East Side of Shore Front Park for the protection of shorefront properties, reduction of flood hazards, and reduction of beach erosion.	No Progress	This needs to be re-evaluated to determine if it will be as effective as anticipated.
VPTCH-14: Marina Property Protection Plan to protect shore front properties.	No Progress	
VPTCH-15: Improve Little Creek Drainage to reduce flooding and improve evacuation procedures.	In Progress, 20% Completed	The Village has secured DEC permits to begin improvements to reduce upland flooding. The project has been delayed due to lack of funding. With rising water levels this project is more relevant than ever.
VPTCH-16: Road Elevation Project – Argyle Ln., Laurel St., Pine Blvd., and Campbell St. to enable access of emergency vehicles and mitigate flooding.	Completed	Not carried over.
VPTCH-17: Develop Local Waterfront Revitalization Plan to improve safer waterfront usage, reduced river front flooding, contribute to improved water quality, and preserve natural areas and fish habitats.	In Progress, 90% Completed	The Village has a draft LWRP and is working towards incorporated final comments from the state.
VPTCH-18: Storm Water Management Plan	Continuous	The Village’s Storm Water Management Plan dates to 2003 and needs to be updated. We have received proposals from consultants and are weighing our options. Funding is needed.
VPTCH19: Correct Flood Area Problems – Bay Avenue to reduce the flooding, improve storm water drainage, improved emergency services, improve evacuation routes, and reduce property damage.	Completed	Problem corrected. Not carried over.
VPTCH-20: Correct Flood Area Problems – Brightwood St./Beach Ave./Roosevelt St. to reduce the flooding, improve storm water drainage, improved emergency services, improve evacuation routes, and reduce property damage.	In Progress, 50% Completed	Low pressure sewer lines were installed on Brightwood Street providing the ability to have residents’ hookup to the sewer system and eliminate onsite septic systems. Funds needed to complete LPS on Beach and Roosevelt and improve drainage to mitigate flooding.



Description	Status	Review Comments
VPTCH-21: Correct Flood Area Problems – Bianca Rd. to reduce the flooding, improve storm water drainage, improved emergency services, improve evacuation routes, and reduce property damage.	Completed	Not carried over
VPTCH-22: Correct Flood Area Problems – Central Business District to reduce the flooding, improve storm water drainage, improved emergency services, improve evacuation routes, and reduce property damage.	No Progress	Still relevant; funds needed.
VPTCH-23: Correct Flood Area Problems – West Lake Road to reduce the flooding, improve storm water drainage, improved emergency services, improve evacuation routes, and reduce property damage.	Completed	Not carried over.
VPTCH-24: Elevate Buildings and/or their Utilities to reduce property damage, and reduce exposure to flood hazards, during severe storms.	Unknown	Still relevant but sites to be identified and funding identified.
VPTCH-25: Retrofit Buildings as part of the CRS program.	Unknown	
VPTCH-26:MS4 Program Storm Water Quality Improvement for protection of human health, ecosystem integrity, better and more recreational opportunities and protection of our natural resources, through reduction of unintentional discharges and increased enforcement against illegal discharges.	In Progress	The Village continues to comply with the conditions of the SPEDES general discharge permit.
VPTCH-27: Acquire easements from Suffolk Co. to improve drainage for protection or restoration of ecosystem integrity, natural control of runoff, recreational opportunities and our natural resources, through reduction of unintentional discharges and increased enforcement against illegal discharges.	Unknown	Carried over
VPTCH-28:Patchogue Lake Shoreline and Lake Front Property Restoration and Protection for protection or restoration of ecosystem integrity, natural control of runoff and erosion, recreational opportunities and protection of natural resources such as wildlife and water quality through reduction of discharges.	Unknown	
VPTCH-29: Wetland and Habitat Conservation, Restoration, and Protection for erosion control.	Unknown	
VPTCH-30: Waterway Maintenance and Dredging to ensure maintenance of proper navigational features.	Continuous	The un-navigable portions of the Patchogue River federal channel were dredged; monitoring and future maintenance will likely be needed. Funding will be needed to accomplish this. Carried over.



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

- The bulkhead at the end of Campbell Street along the Patchogue River was replaced.
- Flood barrier doors were installed to protect the MCC room at the wastewater treatment plant.
- The Village Board adopted a Floodplain Management Ordinance.

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

The Village of Patchogue 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 9.12-11 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 9.12-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.12-4. 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
VPTCH-1	Assess the current capabilities of critical evacuation facilities against the requirements listed in the Village HMP.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	12, 13, 14, 15, 16	Village	High	Low	Village resources	Short	High	LPR
VPTCH-2	Assess and prioritize options to protect pumping stations, lift stations, and the sewage treatment facility, and implement as funding becomes available.	Existing	Earthquake, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	2, 7, 9, 14, 15, 16	Village	High	High	Village resources	Short – DOF	High	SIP
VPTCH-3	Survey and assess trees in the Village, and develop a plan to reduce potential damages caused by fallen or windblown trees or branches.	N/A	Earthquake, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	3, 7, 10, 14, 15	Village	Medium	Medium	Village resources	Short	High	SIP, NRP
VPTCH-4	Participate in the Community Rating System, including working with the County and others to bring CRS training/workshops into the community, where appropriate community officials and staff will actively participate.	New and Existing	Coastal Erosion, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	1, 3, 4, 6, 7, 8, 9, 11, 14, 15, 16, 17	Village	Medium	Low	Village resources	Short	High	LRP
VPTCH-5	Install and maintain an emergency power generator for Village Hall.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe	13, 14, 15, 16	Village	High	High	FEMA HMA funding	DOF	High	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
			Storm, Wildfire, Winter Storm								
VPTCH-6	Assess and prioritize options for installing breakwater protection on the east side of Shore Front Park, and implement as funding becomes available.	New	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	2, 5, 15	Village	High-Medium	High-Medium	Federal, State, Local	DOF	High	SIP
VPTCH-7	Develop a Marina Property Protection Plan to protect shore front properties.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	7, 13, 14, 15	Village	Medium	Low	Local resources	Short	High	LPR
VPTCH-8	Assess and prioritize options to improve the drainage capacity of the Little Creek.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	2, 5, 8, 9, 14, 15, 17	Village, NYSDEC	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-9	Assess and prioritize options to correct flooding problems on Brightwood St./Beach Ave./Roosevelt St., and implement as funding becomes available.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	2, 7, 9, 14, 15, 16, 17	Village	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-10	Assess and prioritize options to correct flooding problems in the Central Business District, and implement as funding becomes available.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	2, 7, 9, 14, 15, 16, 17	Village	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-11	Assess and prioritize options to elevate buildings and/or their utilities, and implement as funding becomes available.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	2, 7, 9, 14, 15, 16	Village	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-12	Assess and prioritize options to retrofit buildings to withstand hazard impacts, and implement as	Existing	Earthquake, Flood, Hurricane, Nor'Easter,	2, 7, 9, 14, 15, 16	Village	High-Low	High-Low	FEMA HMA, State, Local	DOF	High	SIP





Section 9.12: Village of Patchogue

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.		Severe Storm, Wildfire, Winter Storm								
VPTCH-13	Acquire easements from Suffolk Co. to improve drainage for protection or restoration of ecosystem integrity, natural control of runoff, recreational opportunities and our natural resources, through reduction of unintentional discharges and increased enforcement against illegal discharges.	New	Coastal Erosion, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW	1, 6, 7, 8, 9, 10, 11, 14, 15, 17	Village	High	High	Local	DOF	High	NRP
VPTCH-14	Assess and prioritize options to restore and protect the Patchogue Lake shoreline and lakefront property, and implement as funding becomes available.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	1, 2, 5, 6, 7, 9, 10, 14, 15, 17	Village	High	High	Federal, State, Local	DOF	High	LPR, SIP, NRP
VPTCH-15	Assess and prioritize options for Wetland and Habitat Conservation, Restoration, and Protection, and implement as funding becomes available.	N/A	Coastal Erosion, Drought, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 5, 6, 7, 9, 10, 11, 14, 15, 17	Village	High	High	Federal, State, Local	DOF	High	LPR, NRP
VPTCH-16	Maintain and dredge waterways to ensure navigability.	N/A	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	5, 14, 15, 17	Village	High	Medium	State, Local	DOF	High	NRP
VPTCH-	Assess and prioritize the	New and	Flood,	11, 15, 16	Village	Medium	Medium	State, Local	DOF	High	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
17	options available to expand the connectivity of the low pressure sewer system to include flood-prone neighborhoods, and implement as funding becomes available.	Existing	Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm								
VPTCH-18	Assess and prioritize the options available to elevate flood-prone roads, and implement as funding becomes available	Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	7, 9, 14, 15, 16, 17	Village	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-19	Improve drainage to include grey and green infrastructure to minimize flooding.	New and Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	5, 7, 9, 14, 15, 17	Village	High	High	FEMA HMA, State, Local	DOF	High	SIP
VPTCH-20	Planned drainage improvement for Little Creek outfall.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW	5, 8, 9, 14, 15, 17	See Action Worksheet (VPTCH-20 - AW 20 - 031814)						
VPTCH-21	Connect private homes to the River Avenue sewer extension.	New and Existing	Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	1, 11, 15, 16	Village	Medium	Medium	Local	DOF	High	SIP
VPTCH-22	Assess and prioritize installation of tide flex valves and/or gates where storm drain system discharges into surface	New and Existing	Flood, Hurricane, Nor'Easter, Severe Storm	14, 15, 16	Village	High	Medium	FEMA HMA	DOF	High	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
	water system to prevent storm surge coming up to the street through the storm drainage system and implement as funding becomes available.										
VPTCH-23	Assess and prioritize repair or replacement of jetty on the east side of the mouth of the Patchogue River which allows sand to drift into the mouth of the river and implement as funding becomes available.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	5, 14, 15, 16	See Action Worksheet (VPTCH-23 - AW 23 – 031814)						
VPTCH-24	Assess and prioritize restoration of beach front along the Great South Bay in the area south of Sunset Lane, between the Patchogue River and Tuthill's Creek and implement as funding becomes available.	N/A	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	1, 5, 6, 15	Village, NYSDEC	Medium	Medium	Local, State, Federal	DOF	High	LRP, NRP
VPTCH-25	Assess and prioritize restoration of wetlands on the east side of Tuthill's Creek.	N/A	Drought, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire	1, 5, 6, 10, 11, 14, 15, 17	Village, NYSDEC	High	High-Medium	Local, State	DOF	High	LRP, NRP
VPTCH-26	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.										
	See above.	Existing	Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter	3, 7, 13, 14, 15, 16	PSEG, County	High	Low-Medium	Local	Short	High	LRP
VPTCH-	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically:										





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
27	<ul style="list-style-type: none"> <li>Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program)</li> <li>Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities)</li> <li>County-Wide Debris Management Plan</li> <li>Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners)</li> <li>Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build 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	Suffolk County, as supported by relevant local department leads	High (comprehensive improvements mitigation and risk-reduction capabilities)	Low-Medium (locally)	Local (staff resources)	Short	High	All

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 9.12-5. 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
VPTCH-1	Assess the current capabilities of critical evacuation facilities against the requirements listed in the Village HMP.	1	0	1	1	1	1	0	0	0	1	1	1	1	0	9	High
VPTCH-2	Assess and prioritize options to protect pumping stations, lift stations, and the sewage treatment facility, and implement as funding becomes available.	1	1	1	1	1	1	0	1	0	0	1	1	1	0	10	High
VPTCH-3	Survey and assess trees in the Village, and develop a plan to reduce potential damages caused by fallen or windblown trees or branches.	0	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
VPTCH-4	Participate in the Community Rating System, including working with the County and others to bring CRS training/workshops into the community, where appropriate community officials and staff will actively participate.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-5	Install and maintain an emergency power generator for Village Hall.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	14	High
VPTCH-6	Assess and prioritize options for installing	0	1	1	1	1	1	0	1	0	1	1	1	1	0	14	High





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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
	breakwater protection on the east side of Shore Front Park, and implement as funding becomes available.																
VPTCH-7	Develop a Marina Property Protection Plan to protect shore front properties.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-8	Assess and prioritize options to improve the drainage capacity of the Little Creek.	0	1	1	1	1	1	0	1	0	1	1	1	1	0	10	High
VPTCH-9	Assess and prioritize options to correct flooding problems on Brightwood St./Beach Ave./Roosevelt St., and implement as funding becomes available.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-10	Assess and prioritize options to correct flooding problems in the Central Business District, and implement as funding becomes available.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-11	Assess and prioritize options to elevate buildings and/or their utilities, and implement as funding becomes available.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-12	Assess and prioritize options to retrofit buildings to withstand hazard	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High





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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
	impacts, and implement as funding becomes available.																
VPTCH-13	Acquire easements from Suffolk Co. to improve drainage for protection or restoration of ecosystem integrity, natural control of runoff, recreational opportunities and our natural resources, through reduction of unintentional discharges and increased enforcement against illegal discharges.	0	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High
VPTCH-14	Assess and prioritize options to restore and protect the Patchogue Lake shoreline and lakefront property, and implement as funding becomes available.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-15	Assess and prioritize options for Wetland and Habitat Conservation, Restoration, and Protection, and implement as funding becomes available.	0	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High
VPTCH-16	Maintain and dredge waterways to ensure navigability.	0	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High
VPTCH-17	Assess and prioritize the options available	1	0	1	1	1	1	0	1	0	1	1	1	1	0	10	High





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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
	to expand the connectivity of the low pressure sewer system to include flood-prone neighborhoods, and implement as funding becomes available.																
VPTCH-18	Assess and prioritize the options available to elevate flood-prone roads, and implement as funding becomes available	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-19	Improve drainage to include grey and green infrastructure to minimize flooding.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-20	Planned drainage improvement for Little Creek outfall.	1	1	1	1	1	1	1	1	1	1	1	1	1	0	13	High
VPTCH-21	Connect private homes to the River Avenue sewer extension.	1	1	1	1	1	1	0	0	0	1	1	1	1	0	10	High
VPTCH-22	Assess and prioritize installation of tide flex valves and/or gates where storm drain system discharges into surface water system to prevent storm surge coming up to the street through the storm drainage system and implement as funding becomes	0	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High





Section 9.12: Village of Patchogue

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
	available.																
VPTCH-23	Assess and prioritize repair or replacement of jetty on the east side of the mouth of the Patchogue River which allows sand to drift into the mouth of the river and implement as funding becomes available.	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
VPTCH-24	Assess and prioritize restoration of beach front along the Great South Bay in the area south of Sunset Lane, between the Patchogue River and Tuthill's Creek and implement as funding becomes available.	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
VPTCH-25	Assess and prioritize restoration of wetlands on the east side of Tuthill's Creek.	1	1	1	1	1	1	0	1	0	1	1	1	1	0	11	High
VPTCH-26	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.	1	1	1	1	1	1	1	0	1	1	1	1	1	0	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
VPTCH-27	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities	1	1	1	1	1	1	1	0	1	1	1	1	1	1	13	High

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

- = Prioritization remained the same as the 2008 HMP.



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

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None at this time.

### **9.12.8 Hazard Area Extent and Location**

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

### **9.12.9 Additional Comments**

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None at this time.



Figure 9.12-1. Village of Patchogue Hazard Area Extent and Location Map 1

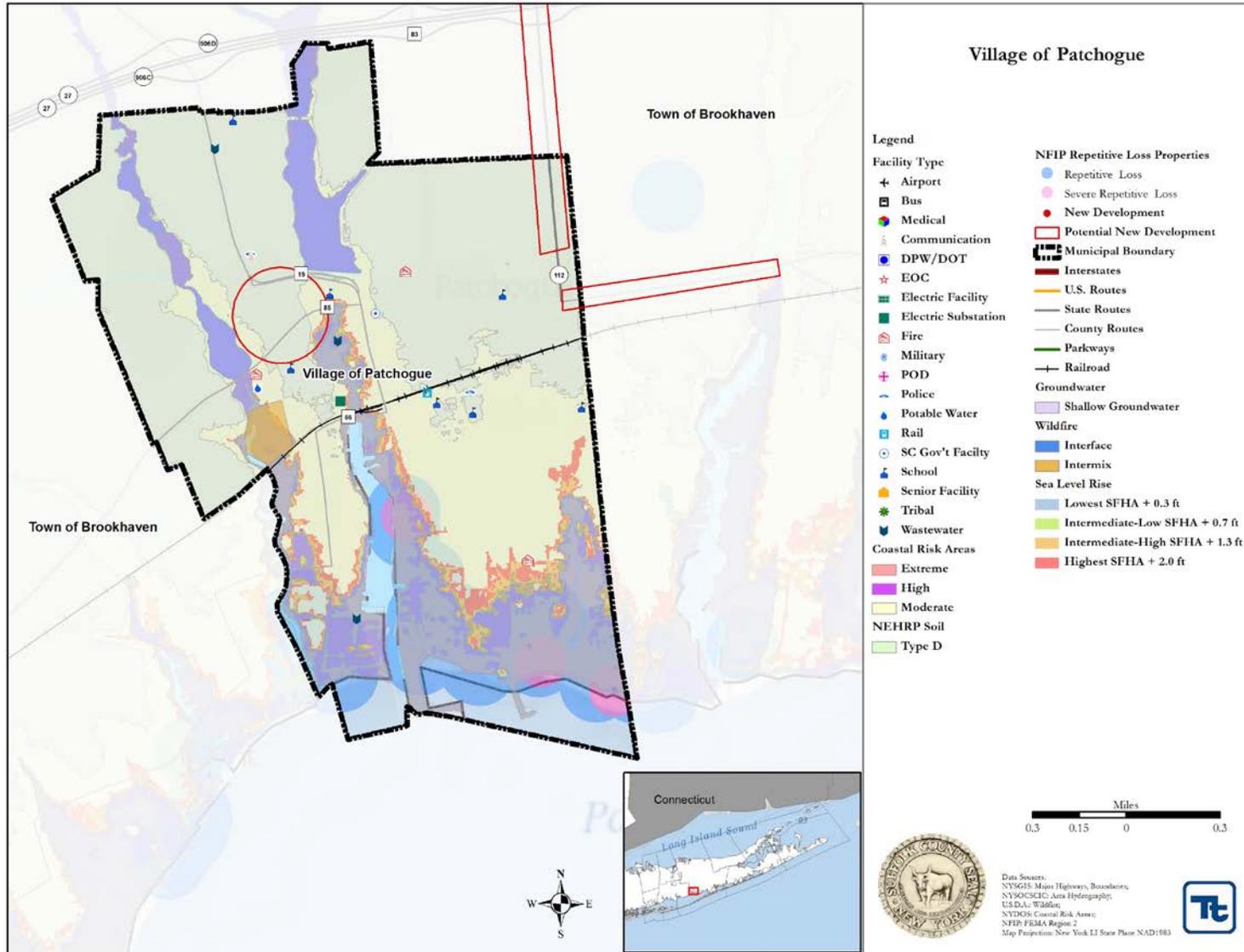
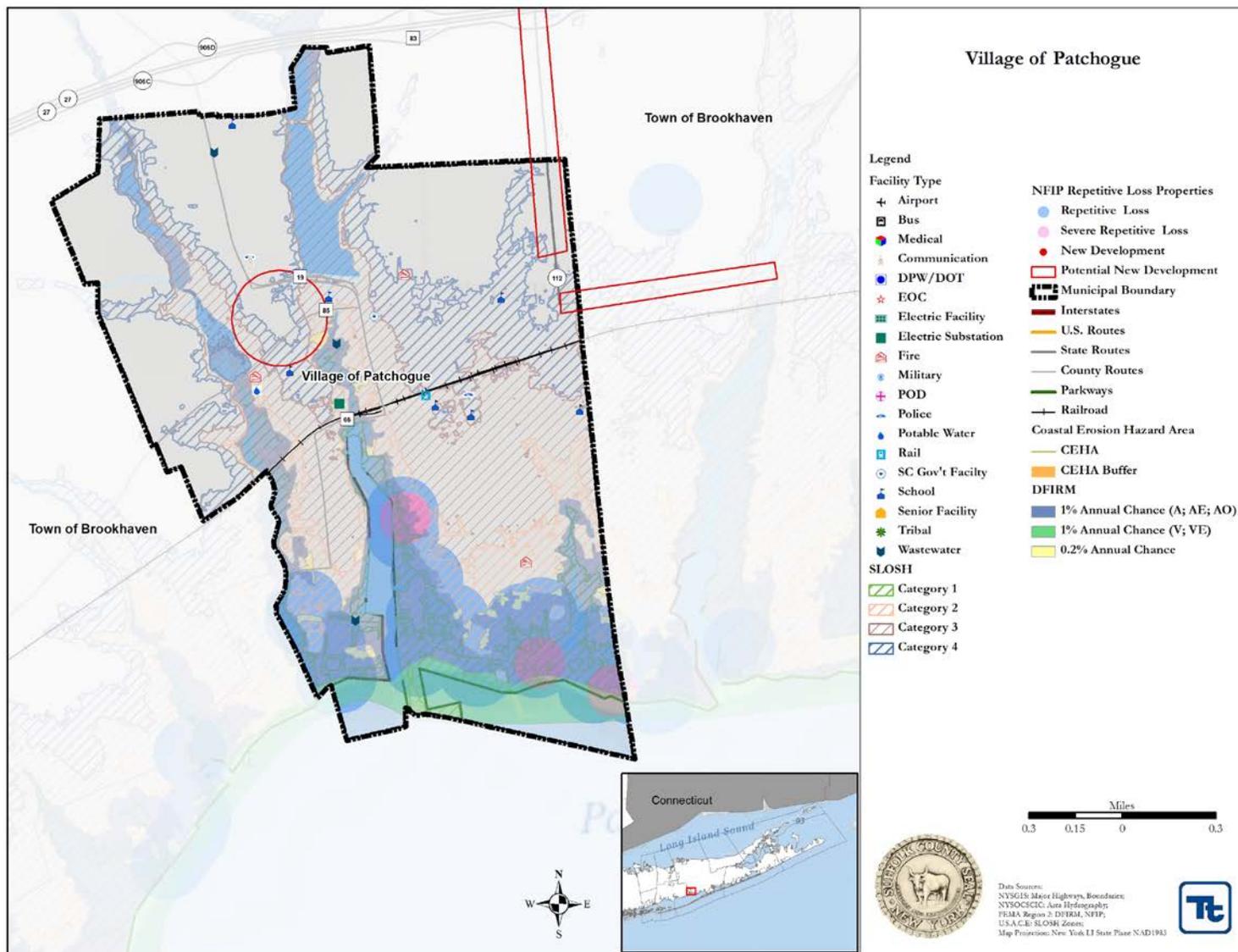




Figure 9.12-2. Village of Patchogue Hazard Area Extent and Location Map 2





# 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:** Village of Patchogue

**Number:** VPTCH-20

**Mitigation Action/Initiative:** Planned drainage improvement for Little Creek outfall.

Assessing the Risk	
<b>Hazard(s) addressed:</b>	
<b>Specific problem being mitigated:</b>	Planned drainage improvement for Little Creek outfall.
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1.
	2.
	3.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Planned drainage improvement for Little Creek outfall.
<b>Mitigation Action/Project Type</b>	
<b>Objectives Met</b>	5, 8, 9, 14, 15, 17
<b>Applies to existing structures/infrastructure, future, or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	Recent Damages:
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	HMGP; _____ for Local Match
<b>Timeline for Completion</b>	
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)





## Prioritization

**Number:** VPTCH-20

**Mitigation Action/Initiative:** Planned drainage improvement for Little Creek outfall.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	13	
<b>Priority (High/Med/Low)</b>	High	





## Guidance to Complete the Mitigation Action Worksheet

The following provides additional guidance on how to complete the Mitigation Project Capture Sheet. If you have any questions, please contact:

*Jonathan Raser*  
*Tetra Tech, Inc., 1000 The American Road, Morris Plains, NJ 07950*  
*973-630-8042 jonathan.raser@tetrattech.com*

### Assessing the Risk

**Hazard(s) addressed:** Please enter the hazard(s) of concern you are mitigating. For this plan, the hazards of concern identified for the planning area are:

- Coastal Erosion
- Drought
- Earthquake
- Flooding (riverine, flash, coastal, and urban flooding)
- Groundwater Contamination (natural)
- Hurricane (tropical cyclones, including tropical storms and tropical depressions)
- Infestation (Asian Longhorn Beetle, Lyme Disease and West Nile Virus)
- Nor'Easters (extra-tropical cyclones, including severe winter low-pressure systems)
- Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)
- Severe Winter Storm (heavy snow, blizzards, ice storms)
- Shallow Groundwater
- Wildfire
- Expansive Soils

**Specific problem being mitigated:** Please describe the specific problem being mitigated.

### Evaluation of Potential Actions/Projects

**Actions/Projects Considered:** Please consider different options to mitigate the problem identified. One alternative is always to accept the current level or risk (tolerate the vulnerability/problem) by deciding to take no action at this time. If you choose to take no action, please complete the worksheet up to and including this section and this will be noted in the Plan.

Please include the name of the action considered and a brief reason as to why the action was not selected. The reasoning documents the consideration of these alternatives.

### Action/Project Intended for Implementation

**Description of the Selected Project:** Please provide a brief description of the selected project.

**Mitigation Action Type:**

- 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.

**Objectives:** Please insert the plan objectives (by number) that would be met if the action/project is implemented.

Plan Objectives:

1. Enhance the public’s understanding of natural hazards, the risk they pose and ways to mitigate those impacts.
2. Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages.
3. Continually improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types, and community development patterns and the measures needed to protect life safety at the local government level.
4. Strengthen codes so that new construction can withstand the impacts of natural hazards and lessen the impact of that development on the environment’s ability to absorb the impact of natural hazards.
5. Seek projects that minimize or mitigate their impact on the environment including but not limited to: beach nourishment, stream channel restoration, and wetlands creation/preservation.
6. Consider providing incentives to promote wise land uses in known or identified high risk areas.
7. Establish a partnership among all levels of government and the business community to improve and implement methods to protect property.
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**Benefits:** Please describe the losses avoided when the project is implemented. This includes physical property damage; loss of function; road closing/detours; etc.

**Estimated Cost:**

Please provide the estimated cost or use the following ranges:

Low = < \$10,000      Medium = \$10,000 to \$100,000      High = > \$100,000

**Priority:** Please enter High/Medium/Low. Refer to the prioritization exercise and table, and instructions below.

### Plan for Implementation

**Potential Funding Source:** Please identify the anticipated funding source, which could be “Grant funding with local cost share”. Sources may include federal, state and local sources.

**Timeline for Completion:** Short = 1 to 5 years. Long Term = 5 years or greater. OG = On-going program.

### Reporting on Progress

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## Guidance to Complete the Evaluation/Prioritization Table

Complete this table to help evaluate and prioritize each mitigation action being considered by your municipality. Please use these 14 criteria to assist in evaluating and prioritizing new mitigation actions identified. Specifically, for each new mitigation action, assign a numeric rank (-1, 0, or 1) for each of the 14 evaluation criteria in the provided table, defined as follows:

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The 14 evaluation/prioritization criteria are:

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13. Local Champion – Is there a strong advocate for the action or project among the jurisdiction’s staff, governing body, or committees that will support the action’s implementation?
14. Other Local Objectives – Does the action advance other local objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of other plans and programs?





## 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:** Village of Patchogue  
**Number:** VPTCH-23  
**Mitigation Action/Initiative:** Repair or replacement of jetty on the east side of the mouth of the Patchogue River

Assessing the Risk	
<b>Hazard(s) addressed:</b>	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm
<b>Specific problem being mitigated:</b>	Sand drifting into the mouth of the Patchogue River
Evaluation of Potential Actions/Projects	
<b>Actions/Projects Considered (name of project and reason for not selecting):</b>	1.
	2.
	3.
Action/Project Intended for Implementation	
<b>Description of Selected Action/Project</b>	Repair or replace jetty on the east side of the mouth of the Patchogue River which allows sand to drift into the mouth of the river.
<b>Mitigation Action/Project Type</b>	
<b>Objectives Met</b>	5, 14, 15, 16
<b>Applies to existing structures/infrastructure, future, or not applicable</b>	Existing
<b>Benefits (losses avoided)</b>	Recent Damages:
<b>Estimated Cost</b>	High
<b>Priority*</b>	High
Plan for Implementation	
<b>Responsible Organization</b>	
<b>Local Planning Mechanism</b>	
<b>Potential Funding Sources</b>	HMGP; _____ for Local Match
<b>Timeline for Completion</b>	
Reporting on Progress	
<b>Date of Status Report/ Report of Progress</b>	Date: Progress on Action/Project:

\* Refer to results of Prioritization (page 2)





## Prioritization

**Number:** VPTCH-23  
**Mitigation Action/Initiative:** Repair or replacement of jetty on the east side of the mouth of the Patchogue River

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	





## Guidance to Complete the Mitigation Action Worksheet

The following provides additional guidance on how to complete the Mitigation Project Capture Sheet. If you have any questions, please contact:

*Jonathan Raser*  
*Tetra Tech, Inc., 1000 The American Road, Morris Plains, NJ 07950*  
*973-630-8042 jonathan.raser@tetrattech.com*

### Assessing the Risk

**Hazard(s) addressed:** Please enter the hazard(s) of concern you are mitigating. For this plan, the hazards of concern identified for the planning area are:

- Coastal Erosion
- Drought
- Earthquake
- Flooding (riverine, flash, coastal, and urban flooding)
- Groundwater Contamination (natural)
- Hurricane (tropical cyclones, including tropical storms and tropical depressions)
- Infestation (Asian Longhorn Beetle, Lyme Disease and West Nile Virus)
- Nor'Easters (extra-tropical cyclones, including severe winter low-pressure systems)
- Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)
- Severe Winter Storm (heavy snow, blizzards, ice storms)
- Shallow Groundwater
- Wildfire
- Expansive Soils

**Specific problem being mitigated:** Please describe the specific problem being mitigated.

### Evaluation of Potential Actions/Projects

**Actions/Projects Considered:** Please consider different options to mitigate the problem identified. One alternative is always to accept the current level or risk (tolerate the vulnerability/problem) by deciding to take no action at this time. If you choose to take no action, please complete the worksheet up to and including this section and this will be noted in the Plan.

Please include the name of the action considered and a brief reason as to why the action was not selected. The reasoning documents the consideration of these alternatives.

### Action/Project Intended for Implementation

**Description of the Selected Project:** Please provide a brief description of the selected project.

**Mitigation Action Type:**

- 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.

**Objectives:** Please insert the plan objectives (by number) that would be met if the action/project is implemented.

Plan Objectives:

1. Enhance the public's understanding of natural hazards, the risk they pose and ways to mitigate those impacts.
2. Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages.
3. Continually improve understanding of the location and potential impacts of natural hazards, the vulnerability of building types, and community development patterns and the measures needed to protect life safety at the local government level.
4. Strengthen codes so that new construction can withstand the impacts of natural hazards and lessen the impact of that development on the environment's ability to absorb the impact of natural hazards.
5. Seek projects that minimize or mitigate their impact on the environment including but not limited to: beach nourishment, stream channel restoration, and wetlands creation/preservation.
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