



9.14 Village of Port Jefferson

This section presents the jurisdictional annex for the Village of Port Jefferson.

9.14.1 Hazard Mitigation Plan Point of Contact

Primary Point of Contact	Alternate Point of Contact
Robert J Juliano/ Village Clerk- Administrator 121 West Broadway Port Jefferson, NY 11777 Phone: 631-473-4724 Email: Clerk@PORTJEFF.com	Margot Garant 88 North Country Road Port Jefferson, NY 11777 Phone: 631-473-4744 Email: mayorsoffice@portjeff.com

9.14.2 Municipal Profile

Population

7,750 (2010 U.S. Census)

Location

The Village of Port Jefferson is located within the Town of Brookhaven, on the North Shore of Long Island. The Village is located approximately 56 miles east of New York City, in the northern part of central Suffolk County. The Village of Port Jefferson has a total area of 3.05 square miles, with 3.0 square miles of land and 0.05 square miles of water.

Climate

Long Island’s climate is similar to other coastal areas of the Northeast. Summers are typically warm, with an occasional thunderstorm. Sea breezes off the Atlantic Ocean temper the heat and limit the frequency and severity of thunderstorms. During the winter, temperatures are usually warmer than inland areas, sometimes bringing rain instead of snow. Measurable snow falls every winter, including Nor’easters, which produce blizzard conditions. These Nor’easters can bring one to two feet of snow with near-hurricane force winds.

Brief History

The Village of Port Jefferson is a historic shipbuilding village. At one time, the Village was a small ship building community, with the name Drowned Meadow. The community leaders realized this was a poor name for a shipbuilding business, and changed its name to Port Jefferson, after President Thomas Jefferson. The Village was also once a major whaling port, especially in the 1880s. The Village of Port Jefferson was incorporated in 1964.

Governing Body Format

The Village of Port Jefferson Government consists of a Mayor and four Trustees.

Growth/Development Trends

None identified at this time.



9.14.3 Natural Hazard Event History Specific to the Municipality

Suffolk County has a history of 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 events that have occurred from 2008 to the present 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 9.14-1. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	Suffolk County Designated?	Summary of Damages/Losses
October 27- November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA	Yes
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	Additional damage to East Beach infrastructure, Roads/drainage
March 13-31, 2010	Severe Storms and Flooding	DR 1899	Yes - PA	Damage to numerous road drainage structures, roadway undermining, additional damage to East Beach infrastructure (e.g. bath house), damage to Crystal Brook Rd terminus infrastructure (e.g. road undermining, drainage structures), significant sand loss at East and West Beach
November 12-14, 2009	Severe Storms and Flooding associated with TD Ida and Nor'Easter	DR 1869	Yes - PA	Damage to infrastructure at East Beach (e.g. parking lot, revetment, accessory structures)

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



9.14.4 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 Port Jefferson. 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 Port Jefferson.

Table 9.14-2. Hazard Risk/Vulnerability Risk Ranking

Hazard Ranking	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c, e}	Probability of Occurrence ^b	Risk Ranking Score (Probability x Impact)
2	Coastal Erosion	RCV in CEHA: \$80,604,607	Frequent	48
6	Drought	Damage estimate not available	Occasional	9
6	Earthquake	500-Year MRP: \$128,618,913 2,500-Year MRP: \$2,065,631,997	Rare	19
7	Expansive Soils	Damage estimate not available	Rare	6
4	Flood	1% Annual Chance: \$3,328,257 0.2% Annual Chance: \$15,193,985	Occasional	18
5	Groundwater Contamination (natural)	Damage estimate not available	Occasional	21
3	Hurricane	Category 1 SLOSH: \$116,241,950 Category 2 SLOSH: \$260,205,071 Category 3 SLOSH: \$396,725,738 Category 4 SLOSH: \$433,667,582	Occasional	36
5	Infestation	No measurable impact to property	Occasional	21
1	Nor'Easter	100-Year RCV: \$1,725,996,479 500-Year RCV: \$1,596,906,895	Frequent	54
2	Severe Storm	100-Year RCV: \$1,725,996,479 500-Year RCV: \$1,596,906,895	Frequent	48
1	Severe Winter Storm	1% of GBS: \$30,558,449 5% of GBS: \$152,792,243	Frequent	54
4	Shallow Groundwater Flooding	Damage estimate not available	Occasional	9
7	Wildfire	Estimated RCV in Interface/Intermix: \$137,076,534	Rare	6

- 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 9.14-3. 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 Port Jefferson	68	62	\$977,308	3	1	14	2	52

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

Note (3): The policies inside and outside of the flood zones 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 9.14-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure	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 ⁽²⁾	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽²⁾
Port Jefferson Fire Department	Fire							9.3	17.1	480
Miller Marine Services, Port Jefferson M	Port		V	X						

Source: HAZUS-MH 2.1

Note: 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

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

- The Village has an extensive shoreline within its jurisdictional boundary, including areas on Long Island Sound, Port Jefferson Harbor, Mt. Sinai Harbor and various tidal creek tributaries. Coastal erosion and flooding are two significant hazards that impact the Village due to local geography. Losses have been suffered within public recreation areas, including Village beaches and their associated infrastructure, as well as, drainage system and road damage village-wide. Road and parking area subsidence, losses of public structures and amenities, and damage to stormwater conveyance and storage units have all been the result of recent storm and weather related events. Additionally, there have been significant signs of further storm-related damage such as bluff destabilization at the Village's County Club. This may lead to future losses at this and other Village locations.



9.14.5 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 9.14-5. Planning and Regulatory Capability

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dep't. / Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	Local and County		Chapter 101: Building Construction, Adopted 6/11/1992
Zoning Ordinance	Y	Local		Chapter 250: Zoning, Re-adopted 12/15/1991
Subdivision Ordinance	Y	Local		Chapter 220: Subdivision of Land, Re-adopted 1/3/1991
Special Purpose Ordinances	Y	Local		Chapter 145: Flood Damage Prevention, Adopted 10/3/1994
Growth Management	Y	Local		Master Plan Adopted 1979
Floodplain Management / Basin Plan	N			
Stormwater Management Plan/Ordinance	Y	Local, State		Chapter 213: Stormwater Management, Adopted 6/25/2007
Comprehensive Plan / Master Plan	Y	Local		Master Plan Adopted 1979
Capital Improvements Plan	N			
Site Plan Review Requirements	Y	Local		
Habitat Conservation Plan	N			
Economic Development Plan	N			
Emergency Response Plan	Y	Local		Currently developing plan
Shoreline Management Plan	N			
Post Disaster Recovery Plan	Y	Local		Currently developing plan
Post Disaster Recovery Ordinance	Y	Local		Currently developing plan
Real Estate Disclosure req.	N			
Other (e.g. steep slope ordinance, local waterfront revitalization plan)	N			
NFIP Flood Damage Protection Ordinance	Y			Chapter 145, Updated August 24, 2009
Freeboard	Y	State		State mandated BFE+2 for single and two-family residential construction; BFE+1 for all other



Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dep't. / Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Cumulative Substantial Damages				
Coastal Erosion Control Districts				

Administrative and Technical Capability

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

Table 9.14-6. 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	Village Employee – Village Engineer
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Village Employee – Village Engineer
Planners or engineers with an understanding of natural hazards	Y	Village Employee – Village Engineer
Floodplain Administrator	Y	Director of Planning**; Outside Contractor
Surveyor(s)	Y	Outside Contractor
Personnel skilled or trained in “GIS” applications	Y	Outside Contractor
Scientist familiar with natural hazards in the Village of Port Jefferson.	Y	Outside Contractor
Emergency Manager	Y	PJFD
Grant Writer(s)	Y	Outside Contractor
Staff with expertise or training in benefit/cost analysis	Y	Village Treasurer
Professionals trained in conducting damage assessments		

**Per municipal Flood Damage Prevention Ordinance

Fiscal Capability

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

Table 9.14-7. 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	Don't know
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No



Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Withhold public expenditures in hazard-prone areas	No
State mitigation grant programs (e.g. NYSDEC, NYCDEP)	Yes
Other	Don't know

Community Classifications

The table below summarizes classifications for the community programs available to the Village of Port Jefferson.

Table 9.14-8. Community Classifications

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

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

The classifications listed above relate to the community’s effectiveness in providing services that may impact its vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one (1) being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO’s Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

National Flood Insurance Program

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



Program and Compliance History

Came into NFIP March 2, 1983. Recent maps September 25, 2009. Chapter 145, updated August 24, 2009.

Loss History and Mitigation

Planning and Regulatory Capabilities

Administrative and Technical Capabilities

Chapter 145, updated August 24, 2009. Village Engineer is FDPO designated NFIP FPA.

Public Education and Outreach

Actions to Strengthen the Program

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 – maintain the Master Plan and growth management plan to minimize risk in hazard areas. Updates will include a review of the HMP to ensure that hazard areas are identified in the respective plans.

Building Code, Ordinances, and Enforcement – review planned development against the hazard areas identified in the HMP during zoning and subdivision reviews.

Building Code, Ordinances, and Enforcement – maintain NFIP flood damage prevention ordinance and stormwater management ordinance to incorporate storm resiliency protections.

Building Code, Ordinances, and Enforcement – investigate Code Changes incorporating safeguards for new and renovated buildings/ dwellings from earthquake damage

Floodplain Management - work together with the County and others to bring CRS training/workshops into the community where appropriate community officials and staff will actively participate

Emergency Response Plan - continue to develop, enhance and implement existing emergency plans

Emergency Response Plan - Develop a post-disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans. The debris management plan will incorporate estimates of debris generated by different hazards, as discussed in the risk assessment portion of the HMP.



Information Technology Disaster Recovery Plan (DRP) – develop and adopt a DRP to ensure access to vital records and systems during an emergency.

9.14.1 Mitigation Strategy

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

Past Mitigation Initiative Status

The following table summarizes progress on the mitigation strategy identified in the 2008 plan for the Village.

Table 9.14-9. Past Mitigation Initiative Status

Description	Status	Review Comments
VPJ -1: Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage with repetitive loss and severe repetitive loss properties as priority.	Ongoing	An amended version of this initiative is being carried forward in the updated strategy. Implementation is supported by specific initiatives in the updated strategy, including participation in related county-led initiatives.
VPJ -2: Consider participation in incentive-based programs such as CRS and Storm Ready.	Ongoing	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.
VPJ -3: Continue to support the implementation, monitoring, maintenance and updating of this Plan, as defined in Section 7.0	Ongoing	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.
VPJ -4: Strive to maintain compliance with and good standing in the National Flood Insurance program.	Ongoing	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.
VPJ -5: Continue to develop, enhance and implement existing emergency plans.	Ongoing	A modified version of this initiative is being carried forward as an integration action, specifically identifying that the Village will incorporate the findings and recommendations of this HMP update into amendments/updates to their emergency plans. See also VPJ-9 below.
VPJ -6: Create/enhance/ maintain mutual aid agreements with neighboring communities.	Ongoing	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.
VPJ -7: Support County-wide initiatives identified in Section 9.1 of the County Annex.	Ongoing	A modified version of this initiative is being carried forward, identifying local participation in specific county-led or county-sponsored mitigation.



Description	Status	Review Comments
VPJ -8: Consider the development of a post – disaster action plan, including a debris management plan. This to be incorporated into existing emergency management plans.	Ongoing	A modified version of this initiative is being carried forward, identifying local participation in the pending county-led debris management planning process.
VPJ -9: Develop a Village Emergency Plan and include the effects of hazards of concern on the village and community	Ongoing	See VPJ-5 above.
VPJ -10: Investigate Code Changes incorporating safeguards for new and renovated buildings/ dwellings from earthquake damage	Ongoing	Moved to Capabilities. Village has included an initiative to support and participate in county-led initiatives that address this risk, specifically participation in the Multi-Jurisdictional Seismic Risk Task Force.

Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Township has identified the following mitigation projects/activities that have been completed:

- The Village has made efforts to improve the drainage system along public roadways with unit replacements, additional structures, and regular inspections and maintenance. The Village is installing sheet piling reinforcement behind rock revetment areas at East Beach and Crystal Brook Hollow Road. The Village is developing a Beach Maintenance Plan for its public recreational areas at East and West Beach, which will include planning and evaluation criteria for re-nourishment. The Village is also coordinating with the Town of Brookhaven on the critical jetty extension/revetment located at the east end of East Beach (aka Mt. Sinai Harbor west jetty).

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Port Jefferson 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 9.14-10 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 9.14-11 provides a summary of the prioritization of all proposed mitigation initiatives for the plan update.





Table 9.14-10. 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
VPJ-1 (former VPJ-7, -8 and -9)	Compile Emergency Management, Hazard Mitigation and Disaster Recovery Plan (Sandy HMGP LOI #136)	See Action Worksheet (VPJ-1- LOI 136-032814)									
VPJ-2	Standby Generator for Village EOC	See Action Worksheet (VPJ-2 - Standby Generator for Village EOC)									
VPJ-3	Drainage System Improvements Along Barnum Avenue	See Action Worksheet (VPJ-3-Storm Drainage Improvements)									
VPJ-4	Develop a Beach Maintenance Plan for the Village's Public Recreation Areas at East Beach and West Beach	See Action Worksheet (VPJ-4 - Develop Beach Maintenance Plan)									
VPJ-5	Complete Critical Jetty Extension/Revetment at the West Jetty Mt. Sinai Harbor	See Action Worksheet (VPJ-5 - Critical Jetty Extension-Revetment Mt Sinai Harbor)									
VPJ-6	Assess and prioritize options to retrofit, acquire, or relocate structures located in hazard-prone areas, and implement as funding becomes available. Implementation is further supported by county-led initiatives	Existing	Coastal Erosion, Earthquake, Expansive Soils, Flood, Hurricane, Nor'Easter, Severe Storm,	1, 2, 9	Village – NFIP FPA; supported by NYSOEM and FEMA	High (reduced vulnerability of structures and infrastructure)	High	FEMA FMA, HMGP or other available grant funding sources, property owner	Long-term 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
	identified below.		Shallow GW, Wildfire					for local share			
VPJ-7 (former VPJ-7, -8, -10)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> • Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) • Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) • Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) • County-Wide Debris Management Plan • 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) • 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). 										
	See above	Both	All Hazards	All Objectives	Suffolk County, as supported by relevant local department leads		High (comprehensive improvements mitigation and risk-reduction capabilities)	Low-Medium (locally)	Short	High	All types



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
VPJ-8	Assess and prioritize options to manage stormwater and improve drainage throughout the Village, and implement as funding becomes available. See also Drainage System Improvements Along Barnum Avenue project identified above.	New and Existing	Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	1, 2, 8, 9, 17	Village Engineer and DPW	Medium (reduced stormwater flooding which may cause road closures and property and infrastructure damage)	Medium	Local and available grant funding	Longterm DOF	Medium	SIP
VPJ-9	Create dunes between West Beach and East Beach to provide toe protection to the shoreline bluff under the Village's Country Club.	See Action Worksheet (VPJ-9 - Create Dunes between West and East Beaches)									
Brookhaven	Port Jefferson Pier Rehabilitation	See Town of Brookhaven Action Worksheet (TOB-2-Port Jefferson Pier-032714)									

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 reappropriation 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 9.14-11. 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	Total	High / Medium / Low
VPJ-1 (former VPJ-7, -8 and -9)	Compile Emergency Management, Hazard Mitigation and Disaster Recovery Plan (Sandy HMGP LOI #136)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VPJ-2	Standby Generator for Village EOC	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VPJ-3	Drainage System Improvements Along Barnum Avenue	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VPJ-4	Develop a Beach Maintenance Plan for the Village's Public Recreation Areas at East Beach and West Beach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VPJ-5	Complete Critical Jetty Extension/Revetment at the West Jetty Mt. Sinai Harbor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
VPJ-6	Assess and prioritize options to retrofit, acquire, or relocate structures located in hazard-prone areas, and implement as funding becomes available. Implementation is further supported by county-led initiatives identified below.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Low
VPJ-7 (former VPJ-7, -8, -10)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium/High
VPJ-8	Assess and prioritize	1	1	1	1	0	1	0	1	0	1	1	0	0	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	Total	High / Medium / Low
	options to manage stormwater and improve drainage throughout the Village, and implement as funding becomes available. See also Drainage System Improvements Along Barnum Avenue project identified above.																
VPJ-9	Create dunes between West Beach and East Beach to provide toe protection to the shoreline bluff under the Village's Country Club.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	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.



9.14.2 Future Needs to Better Understand Risk/Vulnerability

None at this time.

9.14.3 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Port Jefferson that illustrate the probable areas impacted within the Village. 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 Port Jefferson has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.14.4 Additional Comments

None at this time.



Figure 9.14-1. Village of Port Jefferson Hazard Area Extent and Location Map 1

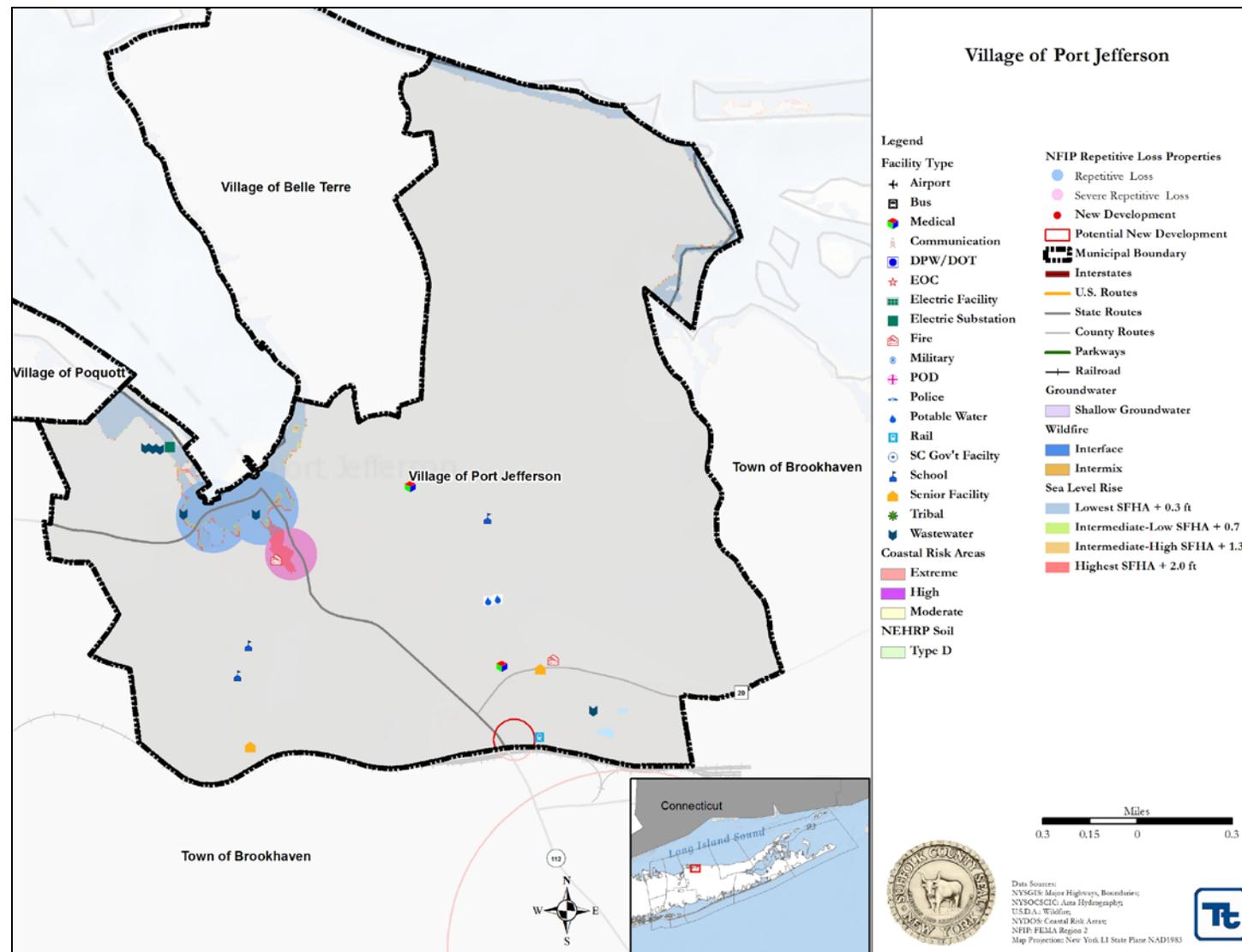
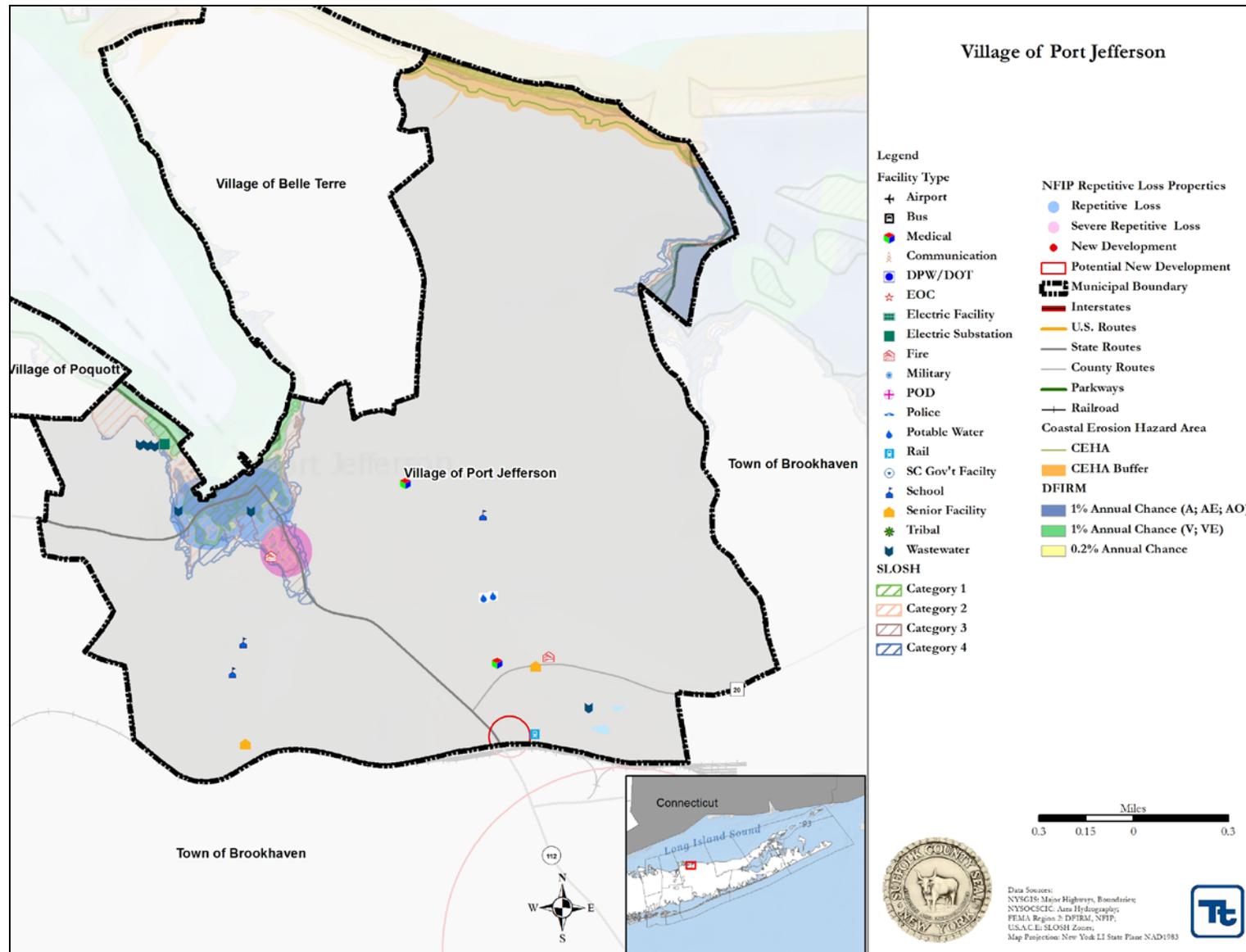




Figure 9.14-2. Village of Port Jefferson Hazard Area Extent and Location Map 2





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: Town of Brookhaven
Number: Sandy HMGP
Mitigation Action/Initiative: Port Jefferson Pier Rehabilitation

Assessing the Risk	
Hazard(s) addressed:	Coastal Erosion, Flooding, Hurricane, Nor'Easters, Severe Storms, Severe Winter Storm
Specific problem being mitigated:	<p>The Town of Brookhaven owns and operates a 120 slip public marina located on Broadway (NY-25A) in the Village of Port Jefferson. The marina is situated on Port Jefferson Harbor where there is a major car, truck and passenger ferry connection to and from Bridgeport Connecticut via a private ferry service, located adjacent to and east of the marina.</p> <p>A pier extending in an east-west direction located north of and parallel to the bulkhead had suffered extensive deterioration over the years due to heavy wave action and storm surges in the harbor. The deterioration of the pier included a timber wave screen to mitigate storm wave activity impacting the boats docked in the marina. In the summer of 2011 the Town initiated and completed a pier rehabilitation project. As part of that project, the timber wave screen on the north face of the pier was replaced. Unfortunately, funds were not available to replace wave screening on the south face. During Tropical Storm Irene, this south face wave screen was further damaged with sheets and lower wales left in a precarious condition, no longer serving its intended function and creating an unsafe condition.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. In the case of the no action alternative, the pier will further deteriorate and wave action will damage the boats docked in the marina and other structures. 2. One alternate considered for the project is to install a new steel sheetpile bulkhead in lieu of a timber wave screen. This alternate would include installation of new steel sheet piling adjacent to the existing pier, and installing a new steel wale and connecting the new sheet piling to the pier. This alternative is not preferred, however because of the cost as compared to a timber screen wall. In addition, wave action within the marina may be increased. A project budget cost for this alternate is \$400,000. 3. A second alternate considered a floating wave attenuator that would be installed on the harbor side of the existing pier. The wave attenuator would be moored by anchors strategically set in the harbor to dissipate wave energy prior to the waves reaching the marina from the harbor side. This alternate is not preferred because it may be an obstruction to the commercial and private vessels in the harbor. In addition, permitting issues for the installation of the device may preclude its use. A project budget cost for this alternate is \$450,000.
Action/Project Intended for Implementation	





Description of Selected Action/Project	<p>The Town is proposing to mitigate wave damage to floating docks and commercial and private vessels in the marina by reconstructing the wave screen on the south side of the north pier. The wave screen consists of 3"x8" timbers mounted vertically to timber wales that bridge the pier's support pilings. The wave screen is intermittent - installed between alternating pile bents. This configuration, coupled with the new wave screen installed on the north side of the pier will effectively dissipate wave energy within the marina.</p> <p>The Project will commence with Engineering design and permitting through the New York State Department of Environmental Conservation. Once permitted, a Contractor will be retained through the Town's purchasing department. Construction activities will be staged from a barge mobilized within the marina. Material lead times are anticipated to be minimal, and the work is anticipated to be completed within about 4 weeks from the start of actual construction.</p>
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	1, 15, 16,
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages:
Estimated Cost	\$10,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Brookhaven: Matt Miner, Deputy Supervisor
Local Planning Mechanism	Suffolk County Multi-Jurisdictional Hazard Mitigation Plan
Potential Funding Sources	HMGP; FMA, PDM, Town Capital Budget for Local Match
Timeline for Completion	12 months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy - NA

Mitigation Action/Initiative: Port Jefferson Pier Rehabilitation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	
Cost-Effectiveness	1	Yes
Technical	1	Will provide long term stability and protection to this facility
Political	1	This plan has the support of the Town Supervisor and Town Board
Legal	1	Yes, the Town works closely with pertinent NYS agencies and our local state legislative representatives
Fiscal	1	The Town has already authorized funding as required under HMGP
Environmental	1	This project will lessen damage to this site and the surrounding environment, and the Town will comply with all regulations
Social	1	This project will limit potential impacts that would have an adverse effect on local environment
Administrative	1	Yes
Multi-Hazard	1	Protect local tourism, recreational fishing fleet and properties
Timeline	1	Can be completed within 5 years
Agency Champion	1	The Town Supervisor, Town Board and Town department with jurisdiction over this project fully support this plan
Other Community Objectives	1	This project serves as a critical capital improvement for the Town, and will also stimulate local economy by employing contractors and helping small area businesses, as well as tourism since the Port Jefferson community attracts a host of visitors
Total	13	
Priority (High/Med/Low)	Medium	





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 Port Jefferson

Number: VPJ-1 (Sandy HMGP LOI #: 136)

Mitigation Action/Initiative: Compile Emergency Management, Hazard Mitigation and Disaster Recovery Plan

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> 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 Other
Specific problem being mitigated:	The Village has been hit hard by several storms recently including Hurricanes Irene/Lee and Sandy and Superstorm Nemo. All had a significant impact on the Village by causing widespread flooding, power outtages and road closures. The response of the Village's government was greatly impeded by lack of prior emergency management and disaster recovery planning. The Village wants to pre-define policies, procedures and resourcing so that the Village is optimally ready for the necxt disaster.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No action – If no action is taken, Village government will likely not be able to function during and immediately after a disaster. 2. The Village could have applied for a more comprehensive plan that would have cost more money. That could have included a more rigorous hazard mitigation component, a multi-department business continuity plan or other related content. The Village considered the options and thought that it would be best to achieve modest short-term goals first and that





	additional needs could be addressed and more content added at a later date.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>The Village of Port Jefferson wants to hire a consultant to proactively assess, analyze and plan for operations during a disaster. The project will produce a compile a plan that specifies emergency management and disaster recovery direction, policies and procedures and resourcing that are relevant during the time of disaster. This will involve ensuring that those Village functions that need to be available and operating during time of emergency can do so.</p> <p>The plan will include the following content:</p> <ul style="list-style-type: none"> • Emergency management organizational structure, policies and procedures • Identification of relevant hazards and an associated risk assessment • Disaster recovery priorities and strategies • A resource assessment • A modest hazard mitigation plan
Mitigation Action/Project Type	Local Plans and Regulations (LPR)
Objectives Met	<p>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.</p> <p>12 Develop or improve early warning emergency response systems and evacuation procedures.</p> <p>14 Seek to integrate/coordinate all phases of Emergency Management within the planning area.</p>
Applies to existing structures/infrastructure, future, or not applicable	Not applicable
Benefits (losses avoided)	Recent Damages: \$390,000
Estimated Cost	\$65,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Robert J. Juliano, Administrator/Clerk
Local Planning Mechanism	CEMP
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Four months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: VPJ-1 (Sandy HMGP LOI #: 136)

Mitigation Action/Initiative: Hazard Mitigation and Enhanced Disaster Recovery Plan

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This plan will enable the Village government to more effectively recover from a disaster and continue to provide services to our citizens.
Property Protection	1	This plan will mitigate threats to the Town government's records and technology infrastructure.
Cost-Effectiveness	1	Yes
Technical	1	Yes
Political	1	This project has the full support of the Mayor and Village Board
Legal	1	Yes
Fiscal	1	The matching funds will be provided from a mix of in-kind services and funding from an existing program budget.
Environmental	1	None; yes
Social	1	No; no
Administrative	1	Yes
Multi-Hazard	1	Yes
Timeline	1	This project can be completed within five years.
Agency Champion	1	The Mayor and Village Board are completely supportive of the effort.
Other Community Objectives	1	This project would provide employment for local citizens.
Total	14	
Priority (High/Med/Low)	High	





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 Port Jefferson

Number: VPJ-2

Mitigation Action/Initiative: Standby Generator for Village EOC

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> 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 Other
Specific problem being mitigated:	<p>The Village of Port Jefferson is located in Suffolk County, New York and has a population of approximately 8,000. The Village's emergency management operations during a disaster event are coordinated out of the Village's Emergency Operations Center (EOC), which is located at DPW Headquarters at 88 North Country Road.</p> <p>With the recent flooding in the Village brought on by Hurricanes Irene, Lee and Sandy and Superstorm Nemo, it is clear to Village government that it needs to better protect the Village's information from damage and loss.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No action – If no action is taken, Village government will likely not be able to function during and immediately after a disaster. 2. Purchase a larger generator to power all of the DPW Headquarters building – The Village considered this and deemed it an overreaching approach to the problem since it would provide power for non-essential





	functions.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Village of Port Jefferson seeks to obtain a standby generator for installation at the Village's EOC. The Village wants to purchase a unit rated for at least 80 kilowatts and 300 amps that will be installed and configured at the EOC which is located at DPW's headquarters at 88 North Country Road. This generator will be able to power all of the information technology and telephone infrastructure that is normally utilized during an emergency in place at the EOC. The funding will cover purchase of the generator, installation and configuration including some associated re-wiring at the EOC.
Mitigation Action/Project Type	Structure and Infrastructure (SIP)
Objectives Met	2 Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages. 12 Develop or improve early warning emergency response systems and evacuation procedures. 14 Seek to integrate/coordinate all phases of Emergency Management within the planning area. 16 Increase resilience of critical facilities and infrastructure
Applies to existing structures/infrastructure, future, or not applicable	Existing structure/infrastructure and future infrastructure
Benefits (losses avoided)	Recent Damages: \$390,000
Estimated Cost	\$35,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Robert J. Juliano, Administrator/Clerk
Local Planning Mechanism	Capital Budget
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Two months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: VPJ-2

Mitigation Action/Initiative: Standby Generator for Village EOC

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This plan will enable the Village government to more effectively recover from a disaster and continue to provide services to our citizens.
Property Protection	1	This plan will mitigate threats to the Town government's operations and infrastructure at the EOC.
Cost-Effectiveness	1	Yes
Technical	1	Yes
Political	1	This project has the full support of the Mayor and Village Board.
Legal	1	Yes
Fiscal	1	The matching funds will be provided from a mix of in-kind services and funding from an existing program budget.
Environmental	1	None; yes
Social	1	No; no
Administrative	1	Yes
Multi-Hazard	1	Yes
Timeline	1	This project can be completed within five years.
Agency Champion	1	The Mayor and Village Board are completely supportive of the effort.
Other Community Objectives	1	This project would provide employment for local citizens.
Total	14	
Priority (High/Med/Low)	High	





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 Port Jefferson

Number: VPJ-3

Mitigation Action/Initiative: Drainage System Improvements Along Barnum Avenue

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> • Flooding (riverine, flash, coastal, and urban flooding) • Groundwater Contamination (natural) • Hurricane (tropical cyclones, including tropical storms and tropical depressions)
Specific problem being mitigated:	<p>Storm drainage infrastructure along Village roads has been severely damaged by recent storm events and high tide events – e.g. Hurricanes Irene/Lee and Sandy – and flooding occurs on many Village roads.</p> <p>The area of greatest concern for the Village is Barnum Avenue south of Caroline Avenue, which floods during any reasonably sized storm or high tide event. The Village’s primary concern is that a critical care facility – Pediatric Cardiology of Long Island (PCLI) – is located in this area at 232 Barnum Avenue and both patients on foot and ambulances have no access to the building when the street is flooded. The Village plans to complete further investigation of the drainage problems in the area in the near future.</p> <p>Also two hospitals – St. Charles and John T. Mather Memorial – are located within a half mile of the project area. When Barnum Avenue is flooded, it makes it harder for some citizens and ambulances to reach the two hospitals. By improving the storm drainage on Barnum Avenue, flooding should be significantly reduced and traffic should be able to get from the west-side of the Village to the two hospitals more safely and reliably.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No action – the flooding would return during every major storm and high tide event and the associated life and safety concerns for residents and patients of PCLI would persist. 2. 3.
Action/Project Intended for Implementation	





Description of Selected Action/Project	<p>The Village intends for this project to involve the following activities:</p> <ul style="list-style-type: none"> • Pre-construction design • Replacement of damaged storm drainage pipes, manholes and catch basins • Select installation of new and larger pipes • Select installation of additional manholes and catch basins that can separate debris from the storm water system • Installation of new curbing wherever it is missing, damaged and/or where proper flow lines have been destroyed • Installation of additional storage in the form of diffusion wells in higher elevated areas <p>The project area will address Barnum Avenue from the intersection with Caroline Avenue south to the intersection with Main Street.</p>
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	<ol style="list-style-type: none"> 2. Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages. 13. Work to lower emergency service response times, including improvement to transportation facilities. 16. Increase resilience of critical facilities and infrastructure. 17. Implement best stormwater management practices and seek to implement identified stormwater management activities and projects, including securing needed funding
Applies to existing structures/infrastructure, future, or not applicable	A combination of existing and future structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$ 2,000,000 (est.)
Estimated Cost	\$600,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Steve Gallagher, Highway Department Superintendent
Local Planning Mechanism	Capital Budget
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Two years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date:





	Progress on Action/Project:
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Prioritization

Number: VPJ-3

Mitigation Action/Initiative: Drainage System Improvements Along Barnum Avenue

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This project will protect lives and prevent injuries by improving access to PCLI and the two hospitals located in the Village
Property Protection	1	This project will help mitigate the flooding damage that could occur to the properties that front on Barnum Avenue
Cost-Effectiveness	1	Yes
Technical	1	Yes
Political	1	This project has the full support of the Mayor and Village Board
Legal	1	Yes
Fiscal	1	The matching funds will be provided form a mix of in-kind services and funding from an existing program budget
Environmental	1	
Social	1	No; no
Administrative	1	Yes
Multi-Hazard	1	Yes
Timeline	1	This project can be completed within five years.
Agency Champion	1	The Mayor and Village Board are completely supportive of the effort.
Other Community Objectives	1	This project would provide employment for local citizens.
Total	14	
Priority (High/Med/Low)	High	





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 Port Jefferson
Number:	VPJ-4
Mitigation Action/Initiative:	Develop a Beach Maintenance Plan for the Village’s Public Recreation Areas at East Beach and West Beach

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> Coastal Erosion Flooding (riverine, flash, coastal, and urban flooding) Hurricane (tropical cyclones, including tropical storms and tropical depressions) 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)
Specific problem being mitigated:	<p>The West Beach and East Beach both are maintained by the Village of Port Jefferson and front onto Long Island Sound. Beaches are vital to providing protection to the community and provide critical economic value as well. Both beaches experience changes in beach sand volume (both loss and recovery) during storm events (e.g. Hurricanes Irene/Lee and Sandy and Nor’Easters). The Village would like to implement an Engineered Beach with a Beach Maintenance Plan in order to provide a wide and stable beach, mitigate potential future damages to the dune and bluff ecosystems and provide a predictable method of repair and replacement.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Do nothing – under this scenario it would be difficult to ensure that both beaches could be effectively managed, hazards mitigated and severe damage prevented over the long term. 2. Construct offshore breakwaters to reduce wave impact and stabilize the beach – Offshore structures are sophisticated and expensive to build. They also require extensive environmental permitting and may be precluded by NYS law or regulation. 3. Construct groins to limit the rate of sand change/loss on the beach. – Groins can have unpredictable impacts on adjacent shorelines and are expensive to build. All groins also require beach fill and maintenance. Environmental permitting can be problematic.





Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>This project will involve the following activities:</p> <ul style="list-style-type: none"> • Investigation of baseline hazards at both beaches • Identification of mitigation strategies and the associated action plan • Phased implementation plan • Define an engineered beach and develop a beach maintenance program and procedures
Mitigation Action/Project Type	Local Plans and Regulations (LPR)
Objectives Met	<p>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.</p> <p>5. Seek projects that minimize or mitigate their impact on the environment including but not limited to: beach nourishment, dune and bluff habitats, and wetlands creation/preservation.</p> <p>15. Seek mitigation projects that provide the highest degree of natural hazards protection at the least cost by considering projects that will mitigate the impacts of multiple hazards and/or leverage multiple funds sources.</p>
Applies to existing structures/infrastructure, future, or not applicable	Not applicable
Benefits (losses avoided)	Recent Damages: \$ 300,000
Estimated Cost	\$ 300,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Robert J. Juliano, Administrator/Clerk
Local Planning Mechanism	Capital Budget Plans
Potential Funding Sources	HMGP; local budget for match
Timeline for Completion	Twelve months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:





Prioritization

Number: VPJ-4

Mitigation Action/Initiative: Develop a Beach Maintenance Plan for the Village's Public Recreation Areas at East Beach and West Beach

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will improve safety for beach users and nearby boat traffic.
Property Protection	1	This project will protect the West Beach and East Beach and the bluffs to the south of each.
Cost-Effectiveness	1	Yes
Technical	1	Yes; this is a long-term solution.
Political	1	This plan has the support of the Village Mayor and Village Board.
Legal	1	Yes, the Village works closely with the Town of Brookhaven and pertinent NYS agencies and our local state legislative representatives.
Fiscal	1	The Village has already authorized funding as required under HMGP.
Environmental	1	Beach restoration and maintenance mimics the natural processes and provides the highest level of environmental compatibility. Beach restoration is readily permitted under prevailing federal, state and local regulations.
Social	1	No, no
Administrative	1	Yes
Multi-Hazard	1	Yes, this alternative will provide structural protection to the dune and bluffs, which provide both flood and erosion protection and environmental ecosystem values. Beaches are the economic lifeblood of this coastal community and provide unsurpassed economic and social benefits.
Timeline	1	Can be completed within 5 years.
Agency Champion	1	The Village Mayor, Village Board and Village department with jurisdiction over this project fully support this plan.
Other Community Objectives	1	This project serves as a significant capital improvement for the Village, and will also stimulate the local economy by employing workers and helping small businesses in the area.
Total	14	
Priority (High/Med/Low)	High	





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 Port Jefferson

Number: VPJ-5

Mitigation Action/Initiative: Complete Critical Jetty Extension/Revetment at the West Jetty Mt. Sinai Harbor

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> • Coastal Erosion • Flooding (riverine, flash, coastal, and urban flooding) • Hurricane (tropical cyclones, including tropical storms and tropical depressions) • Nor'easters (extra-tropical cyclones, including severe winter low-pressure systems) • Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)
Specific problem being mitigated:	<p>The West Jetty of Mount Sinai Harbor has been severely damaged by recent storm events – i.e. Hurricanes Irene/Lee and Sandy and Nor'easters. It needs to be rebuilt and a landward extension added to prevent shoaling into the channel that endangers safe passage of vessels. In addition, the sand that is clogging the channel comes from the Village of Port Jefferson's East beach and increases the sand loss (and thus the protective, economic, social and environmental benefits of that beach). Rebuilding and extending the jetty will ensure that vessels can safely pass through the channel between the Long Island Sound and Mt. Sinai Harbor and that changes on the Port Jefferson East Beach will be better manage the sand changes at East Beach.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – under this scenario it would be difficult to ensure that the channel remains navigable over the long-term.
	2. Extend the west jetty using geotextiles – this is only a temporary solution that will not provide a long term solution.
	3. Remove the west jetty – This will eliminate navigation channel.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Rebuild the West Jetty by and extend landward to connect with the existing shoreline.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)





Objectives Met	2. Retrofit, acquire, or relocate structures in high hazard areas, including but not limited to those known to be or subject to repetitive damages. 16. Increase resilience of critical facilities and infrastructure.
Applies to existing structures/infrastructure, future, or not applicable	Existing structures
Benefits (losses avoided)	Recent Damages: \$ 366,000 estimated annual costs
Estimated Cost	\$ 250,000 annualized cost
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Steve Gallagher, Highway Department Superintendent
Local Planning Mechanism	Capital Improvement Budgets
Potential Funding Sources	HMGP; 25% for Local Match
Timeline for Completion	Twelve months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:





Prioritization

Number: VPJ-5

Mitigation Action/Initiative: Complete Critical Jetty Extension/Revetment at the West Jetty Mt. Sinai Harbor

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will improve safety for boat traffic and citizens by protecting channel from sediment deposition
Property Protection	1	This project will protect the channel to Mt. Sinai Harbor
Cost-Effectiveness	1	Yes
Technical	1	Yes; this is a long-term solution
Political	1	This plan has the support of the Village Mayor and Village Board
Legal	1	Yes, the Village works closely the Town of Brookhaven and pertinent NYS agencies and our local state legislative representatives
Fiscal	1	The Village has already authorized funding as required under HMGP
Environmental	1	The existing situation requires frequent dredging which is disruptive to the marine environment and costly. The proposed alternative will provide new rocky inter-tidal habitat (which is the most biologically productive). Permits are routinely issued for the repair and reconstruction of navigational structures.
Social	1	No, no
Administrative	1	Yes
Multi-Hazard	1	Yes, it will minimize shoaling into the channel, which endangers navigation. This project will also minimize sand loss on East Beach and thus enhance the benefits of that project.
Timeline	1	Can be completed within 5 years
Agency Champion	1	The Village Mayor, Village Board and Village department with jurisdiction over this project fully support this plan
Other Community Objectives	1	This project serves as a significant capital improvement for the Village, and will also stimulate the local economy by employing workers and helping small area businesses
Total	14	
Priority (High/Med/Low)	High	





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 Port Jefferson

Number: VPJ-8

Mitigation Action/Initiative: Create Dunes Between West Beach and East Beach to Provide Toe Protection to the Shoreline Bluff Under the Village's Country Club

Assessing the Risk	
Hazard(s) addressed:	<ul style="list-style-type: none"> Coastal Erosion Flooding (riverine, flash, coastal, and urban flooding) Hurricane (tropical cyclones, including tropical storms and tropical depressions) 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)
Specific problem being mitigated:	<p>The area between the Village's West Beach and East Beach is also maintained by the Village of Port Jefferson and fronts onto Long Island Sound. The beach in this area is narrow (approx. 40 feet wide) and is insufficient to protect the shoreline bluff. The bluff has been eroded during recent storm events (e.g. Hurricanes Irene/Lee and Sandy) and the Village wants to mitigate the relevant threats and protect the bluff from further erosion by creating dunes on the beach.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Do nothing – under this scenario the bluff will erode during future storms and degrade the protective value of the bluff as well as the habitat value of the bluff. 2. Rock revetment – A rock revetment will require extensive permitting and is considered a structure of last resort. It is significantly more expensive that a dune. 3. Vegetation Only on Bluff – this alternative failed during Super Storm Sandy and previous storms. Vegetation alone will not stabilize the bluff because of the intensity of wave energy from Long Island Sound on this exposed shoreline





Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>This project will involve the following activities:</p> <ul style="list-style-type: none"> Planning and design Reinforcement of the shorelines bluff Creation of dunes on the beach to provide toe protection for the shoreline bluff Post project monitoring of the bluff
Mitigation Action/Project Type	Natural Systems Protection (NSP)
Objectives Met	<p>5. Seek projects that minimize or mitigate their impact on the environment including but not limited to: each nourishment, stream channel restoration, and wetlands creation/preservation.</p> <p>15. Seek mitigation projects that provide the highest degree of natural hazards protection at the least cost by considering projects that will mitigate the impacts of multiple hazards and/or leverage multiple funds sources.</p>
Applies to existing structures/infrastructure, future, or not applicable	Not applicable
Benefits (losses avoided)	Recent Damages: \$ 265,000
Estimated Cost	\$ 212,000
Priority*	High
Plan for Implementation	
Responsible Organization	Village of Port Jefferson: Robert J. Juliano, Administrator/Clerk
Local Planning Mechanism	Local Capital Plan Budgets
Potential Funding Sources	HMGP; 25% for Local Match
Timeline for Completion	Twelve months
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:





Prioritization

Number: VPJ-8

Mitigation Action/Initiative: Create Dunes Between West Beach and East Beach to Provide Toe Protection to the Shoreline Bluff Under the Village's Country Club

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will prevent further erosion of the shoreline bluff.
Property Protection	1	This project will protect the shoreline bluff between the West Beach and East Beach.
Cost-Effectiveness	1	Yes
Technical	1	Yes; this is a long-term solution.
Political	1	This plan has the support of the Village Mayor and Village Board.
Legal	1	Yes, the Village works closely with the Town of Brookhaven and pertinent NYS agencies and our local state legislative representatives.
Fiscal	1	The Village has already authorized funding as required under HMGP.
Environmental	1	Dunes are generally compatible with the NYS Tidal Wetlands Act and specifically recommended under the NYS Coastal Erosion Hazard Area law.
Social	1	No, no
Administrative	1	Yes
Multi-Hazard	1	Yes, it reduces hazards from flood, erosion, runoff, hurricanes and nor'easters.
Timeline	1	Can be completed within 5 years.
Agency Champion	1	The Village Mayor, Village Board and Village department with jurisdiction over this project fully support this plan.
Other Community Objectives	1	This project serves as a significant capital improvement for the Village, and will also stimulate the local economy by employing workers and helping small businesses in the area.
Total	14	
Priority (High/Med/Low)	High	

