APPENDIX J

Suffolk County, NY, Hazard Mitigation Plan (Islip)

9.24 Town of Islip

This section presents the jurisdictional annex for the Town of Islip.

9.24.1 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
Anthony J. D'Amico, Deputy Commissioner Public Safety 401 West Main St. Islip, NY 11751 (631) 224-5730 Email: ajdamico@townofislip-ny.gov	Anne Mendes, Secretary to the Commissioner 401 West Main St. Islip, NY 11751 (631) 224-5730 Email: amendes@townofislip-ny.gov

9.24.2 Municipal Profile

This section provides a summary of the community.

Population

According to the U.S. Census, the 2010 population for the Town of Islip was 335,543.

Location

The Town of Islip is one of ten towns within Suffolk County. Located along the south shore of Long Island (east of Babylon and west of Brookhaven), the Town of Islip is a suburban area that is home to more 98,000 residences. The Town of Islip encompasses approximately 106 square miles of land.

Brief History

In 1710, the precinct (or district) of Islip was established and in 1720, the first elections were held for the posts of supervisor, constable, collector and two assessors. The Town Clerk's records of the annual meetings typically began, "At the Annual Meeting of the freeholders of the precinct of Islip ...". The entry for the first Tuesday of April 1790, marked the first in which Islip was referred to as a "Town."

Over the course of Islip's heritage, it has changed from a subsistence farming economy in the early years, to a bustling fishing and tourism area in the 19th and 20th Centuries, to the "bedroom community" of the post World War II years, to its status today as a leader, where industry and community, providing a great place for its more than 300,000 residents to live, work and play.

Governing Body Format

The town is governed by a town supervisor and four council-members. There is also a town clerk and receiver of taxes, both duly elected. All of the elected officials serve staggered four year terms that are up for election in odd years, except when special election is held pursuant to state law.

The town board has jurisdiction over governmental affairs within the town's boundaries, excluding incorporated villages which have their own local government.

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 9.24.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.24-1. Growth and Development

Property Name	Type (Residential or Commercial)	Number of Structures	Location (address and/or Parcel ID)	Known Hazard Zone*	Description / Status
Serota	Both-mixed	35	218-1-3.4	No	In review
Heartland	Both-mixed	16 million sq ft.	71-1-12.4	No	In review
Denver Ave landfill	Commercial	1	317-2-25.2	No	Preliminary
Westbrook village	Residential	50	211-1-5.7	No	Approved
Richleine	Commercial	3	239-4-6.10	No	Site plan review
Bayport Meadows	Residential	35	239-3-22	No	Site plan review

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

9.24.3 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 9.24-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
January 21-22, 2014	Winter Storm	No	SOE	Snow removal
January 2-4, 2014	Winter Storm	N/A	N/A	Snow removal, curb damage, equipment
June 6-8, 2013	Record Heavy Rain	N/A	N/A	Basins and roads flooded
February 8-9, 2013	Severe Winter Storm and Snowstorm	DR-4111	Yes - PA (Public Assistance)	Snow removal, curb damage, equipment. $1.2 million in costs incurred
October 27-November 8, 2012	Hurricane Sandy	DR-4085	Yes – IA (Individual Assistance) and PA	$25 million in cleanup and repair costs (buildings, marinas, equipment). $20 million in dune and beach erosion
August 26 – September 5, 2011	Hurricane Irene	EM 3328 DR 4020	Yes – IA and PA	$2.7 million in cleanup and repair costs. Damage to marinas and buildings, Debris removal, sand erosion

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
April 26 – May 8, 2011	Severe Storms, Flooding, Tornado and Straight Line Winds	DR 1993	No	Basins clogged, DPW pumping
December 26-27, 2011	Severe Winter Storm and Snowstorm	DR 1957	Yes - PA	$2.3 million in cleanup and repair costs.
September 16, 2010	Severe Storms, Tornados and Straight Line Wind	DR 1943	No	Basins clogged,
March 13-31, 2010	Severe Storms and Flooding	DR 1899	Yes - PA	$708,000 in cleanup and repair costs. Debris removed (Fire Island and south shore), downed trees, sand erosion

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

9.24.4 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 Town of Islip. 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 Town of Islip.

Table 9.24-3. 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)
6	Coastal Erosion	RCV in CEHA: $244,094,372	Occasional	12
3	Drought	Damage estimate not available	Occasional	24
3	Earthquake	500-Year MRP: $96,087,975 2,500-Year MRP: $1,637,521,453	Rare	24
7	Expansive Soils	Damage estimate not available	Rare	6
5	Flood	1% Annual Chance: $519,405,259 0.2% Annual Chance: $783,304,733	Frequent	18
5	Groundwater Contamination (natural)	Damage estimate not available	Frequent	18
4	Hurricane	Category 1 SLOSH: $1,846,633,565 Category 2 SLOSH: $8,921,195,015 Category 3 SLOSH: $21,598,043,527 Category 4 SLOSH: $29,249,312,953	Occasional	22
7	Infestation	No measurable impact to property	Rare	6

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)
1	Nor'Easter	100-Year RCV: $574,924,335 500-Year RCV: $5,317,985,701	Frequent	48
2	Severe Storm	100-Year RCV: $574,924,335 500-Year RCV: $5,317,985,701	Occasional	32
1	Severe Winter Storm	1% of GBS: $710,597,909 5% of GBS: $3,552,989,547	Frequent	48
5	Shallow Groundwater Flooding	Damage estimate not available	Frequent	18
3	Wildfire	Estimated RCV in Interface/Intermix: $22,594,265,928	Occasional	24

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 9.24-4. 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)	# Polices in 500 Boundary (3)	# Policies Outside the 500 year Flood Hazard (3)
Town of Islip	6,677	5,304	$201,009,662	416	57	2,164	155	4,358

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 9.24-5. 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[2]	Percent Structure Damage	Percent Content Damage	Days to 100 Percent[2]
NYS DOT Captree State Park	DPW/DOT		X				10.5	29.1	
Captree Island-7u	Electric Power Substation	A	X						
Fair Harbor-7am	Electric Power Substation	A	X						
Ocean Beach-7lm	Electric Power Substation	A	X						
Saltaire Ferry Terminal	Ferry	V	X						
Fair Harbor Fire Department	Fire	A	X	12.6	57.8	630	16.6	78.7	630
Kismet Fire Department	Fire	A	X	15.8	74.4	630	20.9	91.7	630
Harbor Police Departments	Police						6.5	7.5	480
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	A	X						
Potable Water Facility	Potable Water	V	X						
Woodhull School	School	A	X	0.7	3.8	480	7.0	37.8	480
Our Lady Of Consolation Geriatric	Senior Facility	A	X				7.0	38.3	
Pump Station # Unknown	Wastewater	A	X						
Pump Station #4	Wastewater	A	X						
Pump Station #5	Wastewater	A	X						
Pump Station #6	Wastewater	A	X						
Pump Station #2	Wastewater		X						
Pump Station #7	Wastewater		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 by Municipality

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

- The Town of Islip has many areas that are prone to flooding. During Superstorm Sandy, the town sustained tens of millions of dollars in damage to its Marinas and coastal facilities as well as structural damage to a number of Town owned buildings. Residential and municipal owned bulkhead and other water retention measures were compromised.
- The Fire Island Dune System suffered extreme erosion during Hurricane Irene and Superstorm Sandy as well as major coastal flooding along the south shore. It is anticipated that the Army Corp of Engineers will recreate the dunes system throughout Fire Island. However, at this time, a majority of the barrier island is protected by a temporary dune system.

9.24.5 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 9.24-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Y/N)	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Y	Local	Building Division	Town of Islip, Article I, 9-15-70,as Local Law No. 1, 1970
Zoning Ordinance	Y	Local	Building Division	Town of Islip, Local Law No. 1, Chapter 68, adopted 12-12-1967
Subdivision Ordinance	Y	Local	Planning/Engineer	Town of Islip, Chapter 68-646, adopted 4-5-2005
Special Purpose Ordinances (floodplain management, critical or sensitive areas)	Y	Local	Planning	Town of Islip, Local Chapter 68-483, amended 4-8-1997
Growth Management	N			
Floodplain Management/Basin Plan	N			
Storm water Management Plan/ordinance	Y	Local	Public Safety/ Planning/Eng	Town of Islip, Chapter 43, adopted 2-26-2008 as Local Law 4-2008
General Plan or Comprehensive Plan	Y	Local	Planning	Town of Islip, Chapter 39A, adopted 2-6-1990 as Local Law No.1-1990
Capital Improvements Plan	Y	Local	Planning/DPW	?
Site Plan Review Requirements	Y	Local	Town Engineer	Town of Islip, Local Law No. 1 Chapter 68, amended 4-5-05
Habitat Conservation Plan	N			
Economic Development Plan	Y	Local	Economic Development	Town of Islip, Chapter 39A-4 amended 1-15-13 as Local Law No. 4-2013
Emergency Response Plan	Y	Local	Office of Emergency Management	Plan adopted 2011
Shoreline Management Plan	N			
Post Disaster Recovery Plan	N			
Post Disaster Recovery Ordinance	N			
Real Estate Disclosure req.	N			
Other				

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Islip.

Table 9.24-7. Administrative and Technical Capabilities

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Planning - 8 Planners; Engineering- 3 Engineers, staff members
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Engineering- 5 staff members; DEC - 1 Engineer Building - 12 inspectors.
Planners or engineers with an understanding of natural hazards	Y	Engineering-3; Building – 2; Planning 2 members.
NFIP Floodplain Administrator	Y	Planning Commissioner
Surveyor(s)	Y	Engineering-1 shift, not licensed.
Personnel skilled or trained in "GIS" applications	Y	Planning- 1 GIS tech.
Scientist familiar with natural hazards in the municipality.	N	
Emergency Manager	Y	Division of Public Safety, Office of Emergency Management
Grant Writer(s)	Y	Planning (5) ; DPW (1); Parks (1).
Staff with expertise or training in benefit/cost analysis	N	
Professionals trained in conducting damage assessments	Y	Building Department

Fiscal Capability

The table below summarizes financial resources available to the Town of Islip.

Table 9.24-8. Fiscal Capabilities

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

Community Classifications

The table below summarizes classifications for community program available to the Town of Islip.

Table 9.24-9. Community Classifications

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

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: Rich Zapolski

Program and Compliance History

Town of Islip joined the NFIP on November 17, 1972, 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 68, Article XL of the local code, was last updated on September 15, 2009.

As of January 31, 2014 there are 6,677policies in force, insuring $2,074,862,600 of property with total annual insurance premiums of $6,394,227. Since January 31, 2014, 5,304 claims have been paid totaling

$201,009,662. As of January 31, 2014 there are 416 Repetitive Loss and 57 Severe Repetitive Loss properties in the community.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. Previous compliance issues that have been resolved included completing work without permits. The current NFIP Floodplain Administrator has no knowledge of when the last CAV was performed. The municipality sees no specific need for a CAV at this time.

Loss History and Mitigation

Since January 31, 2014, 5,304 claims have been paid totaling $201,009,662. As of January 31, 2014 there are 416 Repetitive Loss and 57 Severe Repetitive Loss properties in the community.

Hurricane Sandy damaged over 14,000 homes in the inundation areas of Islip. Homes damaged were categorized red (unable to be occupied), yellow (damaged severely, possibly substantially, but occupied), and green (damaged but not severe enough to be out of home). 12 structures were categorized as red, 1,200 structures were categorized yellow, and 12,788 were categorized green. In the 3 days following Hurricane Sandy, all home assessments were completed using the ATC 45. Islip then provided this information to FEMA to receive a better assessment. 80 permits have been submitted for homes to begin the elevation process. Funding for mitigation projects includes New York Rising, Increased Cost of Compliance (ICC), private money, and flood insurance.

Planning and Regulatory Capabilities

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on September 15, 2009 and is found at Chapter 68, Article XL of the local code.

Islip exceeds FEMA and New York State minimum floodplain requirements in allowing BFE + 3ft and BFE + 4ft when elevating structures. An elevation greater than BFE + 4ft must be justified by the design professional and approved.
Following Hurricane Sandy the definition of the height of a structure was changed. The height of a structure is now measured from BFE rather than grade.

Administrative and Technical Capabilities

The community FDPO identifies the Planning Commissioner as the local NFIP Floodplain Administrator, 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; Building Director, Code Enforcement, and contracted individuals.

Duties and responsibilities of the NFIP Administrator are permit review for compliance with New York State Code and local floodplain management code. The ATC 45 form is used to rapidly assess properties following an event. Islip created the computer system, PERMIT NET, to track property cards. This system allows them to see what assessments were done in past were and findings at properties and calculate the percentage damaged. GIS has mapped inundation zone of Sandy/all FEMA inspections/all properties in inundation zone. The Building Director handles ICC claims for one-time damage, Code Enforcement assist with floodplain, and contracted individuals assist with town-owned damaged property.

Through PERMIT NET, Islip is able to track properties that have sustained flooding damage. At this time, the system does not track whether or not property owners are interested in mitigation.

Public Education and Outreach

In the Town of Islip, the following educational and/or outreach activities related to the NFIP: permit review for compliance with New York State Code and local floodplain management code, and has distributed brochures to inform residents of insurance rate increases with Biggert-Waters 2012.

New York Rising has been a key component of public outreach during the post-Sandy recovery period.

Actions to Strengthen the Program

The Town of Islip is seeking to enhance its floodplain management and implementation of the NFIP. The Town is not current participating as a CRS community and is currently in the process of reviewing it's floodplain management and practices regarding rapid assessment following an event. The Town is seeking to enhance its GIS capabilities in order to more efficiently collect, record and report it's post storm damage assessments.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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

Land Use Plans – Continue to collect data regarding past events and analyze potential future events.

Building Code, Ordinances, and Enforcement – Inspect all Bulkheads owned by Islip Town and replace if necessary.

Building Code, Ordinances, and Enforcement – Insure the building code is enforced for all construction projects, pre and post disaster, especially with regard to wind speed. According to the New York State department of State, wind speed design for Islip Town is between 110 and 120 miles per hour.

Building Code, Ordinances, and Enforcement – Recommend to other governmental, NGO (Non-governmental Organization) and commercial entities that a structural review of wind loading be conducted on buildings in Islip Town. This would be especially important for multi-story buildings such as the hospitals, federal court and office buildings.

Building Code, Ordinances, and Enforcement – Continue to enforce codes and regulations regarding construction and building occupancy.

Building Code, Ordinances, and Enforcement – Insure that all Town buildings are in compliance with fire code and that fire protection is in place and operational.

Building Code, Ordinances, and Enforcement – Encourage use of additional fire resistant construction measures for new construction and retrofit.

Building Code, Ordinances, and Enforcement – Review Current Town Building Code with regard to HAZUS model of 1884 Earthquake.

Building Code, Ordinances, and Enforcement – Insure that all future construction projects for Islip Town are in compliance with earthquake hazard requirements.

Building Code, Ordinances, and Enforcement – Insure that wood or wood products from USDA Quarantine area are not removed and used for projects in other areas.

Building Code, Ordinances, and Enforcement – Inspect all Islip Town buildings and facilities to insure their structural soundness.

Floodplain Management – Provide for regular inspections of storm systems and clearing of storm drains, culverts and natural stream beds to insure reduce flooding from storm water runoff.

Emergency Response Plan - Perform an inventory and maintain a list of all items, including records that would have to be removed from Town Facilities and Town Hall and Annex if flooding or storm surge is expected to inundate structures. Plan where these items and records would be relocated.

Emergency Response Plan - Update and test the Town Emergency Response Plan regarding relocation of items and records.

Emergency Response Plan - Insure that COOP and COG plans are in place and tested

Emergency Response Plan - Work with trailer parks to insure evacuation of residents when high winds are expected

Emergency Response Plan - Open emergency shelters when necessary (heat or cold emergencies)

Emergency Response Plan - Upgrade decontamination supplies and equipment.

Emergency Response Plan - Coordinate disaster relief response with appropriate governmental and NGO agencies to insure that disaster shelters are properly selected and stocked

Emergency Response Plan – develop the Town's EOP into a Comprehensive All-Hazards EOP.

Infrastructure Protection - Wherever possible, retrofit Islip Town facilities to take into consideration potential impact of moderately high hazards (flood/ wind/ fire/ terrorism)

Infrastructure Protection - Continue efforts to insure that construction of all new governmental facilities for Islip takes in consideration the potential impact of moderately high hazards (flood/ wind/ fire/ terrorism)

Infrastructure Protection – Maintain Islip Town computer system to use standard and current platforms, enabling better interagency communication with other governmental and NGO (non-Governmental Organization) agencies.

Infrastructure Protection - Equip and maintain an EOC/ OPS (Emergency Operations Center / Operations) center at Long Island Islip MacArthur Airport to provide for alternate seat for Town Government outside of the flood plain and storm surge area.

Infrastructure Protection - Insure that dead trees and branches near electric service for critical care facilities are removed or pruned back to reduce the possibility for interruption of service.

Infrastructure Protection - Insure that dead trees and branches near electric service for Islip Town facilities and infrastructure are removed or pruned back to reduce the possibility for interruption of service.

Infrastructure Protection - Insure that branches are pruned away from electric and telephone wires and dead standing trees are removed where they may fall on wires.

Infrastructure Protection - Reduce the number of trees that are in conflict with overhead utilities.

Infrastructure Protection - Insure that salt and sand are stockpiled for icing events.

Infrastructure Protection - Insure that injurious amounts of salt and sand do not wash into environmentally sensitive areas.

Infrastructure Protection - Insure that roadways are cleared and salted in an efficient manner

Infrastructure Protection - Encourage placing utilities underground in future subdivisions to reduce damage from ice storms.

Infrastructure Protection - Insure that surge protection is in place for all electric and electronic equipment in Town facilities and buildings.

Infrastructure Protection - Optical Preemption Signal- Town wide

Infrastructure Protection – identify and implement traffic safety projects, including intersection improvements, turn lanes, community islands and dividers, roadway reconstruction, traffic signal improvements, and traffic calming, on an ongoing basis.

Public Education and Outreach – Continue to provide all-hazard information for the general public through the use of the Town website and print media

Public Education and Outreach – Encourage retrofit of homes in flood prone areas. For example, elevate homes subject to repeated inundation, especially on Fire Island. Gerard Stoddard of the Fire Island Association provided an estimate that it would cost approximately $40,000 per building.

Public Education and Outreach – Provide wet/dry flood proofing assistance to homeowners with repeated basement flooding due to storms.

Public Education and Outreach – Increase public awareness of storm hazards and how to reduce injury and property damage. Provide outreach for vulnerable populations, such as residents of trailer parks and households where English is a second language.

Public Education and Outreach – increase public awareness of hazards from ice storms through the Islip Town Website and publications.

Public Education and Outreach – Increase public awareness of fire prevention and safety. Continue outreach to vulnerable population including the elderly, disabled, economically disadvantaged and households where English may be a second language.

Public Education and Outreach – Continually work with the public to increase public awareness of Terrorism Hazard. "If you see something, say something".

Public Education and Outreach – Provide information to the public on wildfire prevention.

Public Education and Outreach – Provide information to the public on the danger of heat and cold emergencies and where shelters will be located.

Public Education and Outreach – Provide information on earthquake safety to the public.

Public Education and Outreach – Continue to hold the annual rabies vaccination clinic for pets.

Public Education and Outreach – Continue to utilize Islip Town website and printed materials to educate the public about West Nile Virus, Lyme Disease and rabies.

Public Education and Outreach – Use Islip Town website and print material to encourage recycling of waste oil and other recyclables. Continue "STOP" program (Stop throwing out pollutants).

Public Education and Outreach – Use Islip Town website and print materials to educate the public on safety during utility failure.

Public Education and Outreach – Insure that all Islip Town employees are aware of the dangers at rail road grade crossings. Partner with L.I.R.R.

Public Education and Outreach – Continue to educate the public about the dangers at grade crossings. Partner with L.I.R.R.

Public Education and Outreach – Use the Town website and print material to educate the public to the danger of construction that does not comply with code and the necessity to obtain building permits and certificates of occupancy.

Public Education and Outreach – Continue to provide information to the public regarding disaster preparation

Public Education and Outreach – Continue to provide an opportunity for the public to voice their opinions through open, public meetings and timely response to citizen inquiries.

Public Education and Outreach – Provide educational and recreational opportunities for at-risk youth to counter the beliefs, rituals and habits of gang culture.

Site Plan Review - Eliminate Potential Flooding Problems in new commercial applications by examination of groundwater data.

Open Space Plans and Funding Programs - Continue Fire Island- Beach Fill Projects- scraping sand and rebuilding dunes for protection from waves and storm surge.

Open Space Plans and Funding Programs - Employ water conservation measures for all Islip Town buildings and grounds.

Open Space Plans and Funding Programs - Encourage the use of drought resistant plants for Islip Town Plantings.

9.24.6 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 9.24-10. Past Mitigation Initiative Status

Description	Status	Review Comments
TI-1: Perform an inventory and maintain a list of all items, including records that would have to be removed from Town Facilities and Town Hall and Annex if flooding or storm surge is expected to inundate structures. Plan where these items and records would be relocated.	20% Completed	Some records have been moved. Space is limited.
TI-2: Update and test the Town Emergency Response Plan regarding relocation of items and records.	20% Completed	Plan was updated in 2013 to reflect changes in points of contact for various organizations.
TI-3: Wherever possible, retrofit Islip Town facilities to take into consideration potential impact of moderately high hazards (flood/ wind/ fire/ terrorism)	20% Completed	Some facilities have been retrofitted.
TI-4: Continue to provide all-hazard information for the general public through the use of the Town website and print media	In Progress	Evolving. Move to capability.
TI-5: Insure that COOP and COG plans are in place and tested	In Progress	COOP and COG Plans needs to be maintained.
TI-6: Purchase portable equipment to enable interagency communication between Town of Islip and external governmental and NGO (non-Governmental Organization) agencies.	75% Completed	A new radio system has been installed in vehicles and the EOC.
TI-7: Maintain Islip Town computer system standard and current platforms, enabling better interagency communication with other governmental and NGO (non-Governmental Organization) agencies.	100% Completed	Computer software is constantly evolving. The Town intends to keep up with technology.
TI-8: Continue current efforts to purchase crisis management software package to assist with organizing emergency disaster response in EOC (Emergency Operations center).	20% Completed	Measures are being explored to replicate the GIS system at the EOC and to deploy handheld units into the field.
TI-9: Equip and maintain an EOC/ OPS (Emergency Operations Center / Operations) center at Long Island Islip MacArthur Airport to provide for alternate seat for Town Government outside of the flood plain and storm surge area.	Continuous	Grants have been submitted to request funding for this project.
TI-10: Continue efforts to insure that construction of all new governmental facilities for Islip takes in consideration the potential impact of moderately high hazards (flood/ wind/ fire/ terrorism)	IN PROGRESS	After Hurricanes Irene and Sandy, marinas were repairs utilizing various mitigation techniques.
TI-11: Provide for regular inspections of storm systems and clearing of storm drains, culverts and natural stream beds to insure reduce flooding from storm water runoff.	Continuous	Incorporate into Capabilities and integration actions.
TI-12: Continue Fire Island- Beach Fill Projects- scraping sand and rebuilding dunes for protection from waves and storm surge.	Continuous	Beach scraping has been used at various Fire Island Communities. The Army Corps of Engineers intends to implement the Fire Island to Moriches Inlet, Fire Island Stabilization Project.
TI-13: Eliminate Potential Flooding Problems in new commercial applications by examination of groundwater data.	Continuous	BUILDING CODE 2INCH ENGINEERING SPECS

Description	Status	Review Comments
TI-14: Revaluate possibility of beach nourishment program to prevent breaches on Fire Island during storms.	Continuous	Army Corps of Engineers, Fire Island to Moriches Inlet, Fire Island Stabilization Project
TI-15: Assist critical care facilities such as hospitals and nursing homes that need to shelter-in-place with relocating generators, electrical and computer equipment and "hardening" facility i.e. shatter resistant glazing for windows. Participating in AHMP: Good Samaritan Hospital Elevate Primary Power Generators Primary Power Generator Architectural / Engineering Fee Window Replacement Our Lady of Consolation Nursing and Rehabilitative Care Center Elevate generator and switching boxes Storm Shutters for Windows Southside Hospital TB Submitted to Committee	Continuous	These Town of Islip stands ready to assist in the permitting process and will continue work collaboratively with these critical care facilities.
TI-16: Encourage retrofit of homes in flood prone areas. For example, elevate homes subject to repeated inundation, especially on Fire Island. Gerard Stoddard of the Fire Island Association provided an estimate that it would cost approximately $40,000 per building.	Continuous	Several permits were issued by the Building Department for home elevations.
TI-17: Provide wet/dry flood proofing assistance to homeowners with repeated basement flooding due to storms.	Discontinued	
TI-18: Consider dewatering projects for areas with repetitive basement flooding due to rise in groundwater (i.e. Bishop's Lane/ Lake Hills—approx 50 homes)	Discontinued	
TI-19: Encourage homeowners to fill in basements to a point higher than historic groundwater levels to eliminate repetitive basement flooding problems. (i.e. Bishop's Lane/ Lake Hills—approx 50 homes) This may be accomplished through an assessment consideration	Discontinued	
TI-20: Encourage homeowners to eliminate basements in homes with repetitive basement flooding due to rise in groundwater (i.e. Bishop's Lane/ Lake Hills—approx 50 homes). This may be accomplished through an assessment consideration.	Discontinued	
TI-21: Encourage homeowners to consider raising homes to bring first floor above anticipated flood level.	Discontinued	As duplicated under NYS GRANTS AND NY RISING PROGRAM
TI-22: Consider relocation of houses subject to repetitive flooding due to rise in groundwater (i.e. Bishop's Lane/ Lake Hills—approx 50 homes).	Discontinued	As duplicated under NYS GRANTS AND NY RISING PROGRAM
TI-23: Consider purchase of properties subject to repetitive flooding (i.e. Bishop's Lane/ Lake Hills—approx 50 homes).	Discontinued	TOWN WILL NOT PURCHASE PROPERTIES
TI-24: Evaluate potential of damage to cultural facilities in FIRM and SLOSH areas i.e. Brookwood Hall and Islip Art Museum	Discontinued	CONCERNED WITH ALL FACILITIES
TI-25: Increase public awareness of storm hazards and how to reduce injury and property damage. Provide outreach for vulnerable populations, such as residents of trailer parks and households where English is a second language.	Continuous	Incorporate into Capabilities and integration actions.
TI-26: Insure that streams and river are free of debris that impedes flow, especially where they flow under roads.	Continuous	TOWN OWNED ONLY. IN COMPLIANCE WITH DEC REGULATIONS
TI-27: Update and test components of the coastal evacuation plan. Insure that critical roadways will not be subject to inundation.	Continuous	Reworded to reflect elevation of roadways

Description	Status	Review Comments
TI-28: Roadway drainage improvement for flood mitigation, projects on line for 2006- 2009: 400 Cedar Avenue, Islip 387 Mayflower Avenue, Brentwood (X-West Willow Street) 3 Tupelo Lane, East Islip (X- Woodland Drive) 34 Donna Place, East Islip (X- Campbell Lane) 21 Shebar Drive, Islip (X-St. Marks Lane) 4 Arbour Street, West Islip (X-Kime Avenue) 28 Rocket Drive, Islip Terrace (X-East Farmingdale Street) Craig P. Gariepy, Islip Terrace (X-Nassau Street) Craig P. Gariepy Ave., Islip Terrace (X-Islip Boulevard) 396 & 400 Eighth Street, Bohemia (X- Elf Court) Middlesex Ave., Oakdale	Continuous	Updated wording to assess and prioritize options to improve drainage along roadways
TI-29: Inspect all Bulkheads owned by Islip Town and replace if necessary.	Continuous	Bulkheads are inspected regularly. Incorporate into Capabilities and integration actions
TI-30: Code enforcement. Insure the building code is enforced for all construction projects, pre and post disaster, especially with regard to wind speed. According to the New York State department of State, wind speed design for Islip Town is between 110 and 120 miles per hour.	Continuous	PART OF PLAN REVIEW AT BLDG DEPT.
TI-31: Perform a structural review of wind loading for Town Buildings and structures.	2% Completed	Lack of funding, lack of personnel
TI-32: Recommend to other governmental, NGO (Non-governmental Organization) and commercial entities that a structural review of wind loading be conducted on buildings in Islip Town. This would be especially important for multistory buildings such as the hospitals, federal court and office buildings.	Continuous	Part of building code
TI-33: Insure that dead trees and branches near electric service for critical care facilities are removed or pruned back to reduce the possibility for interruption of service.	Continuous	Incorporate into Capabilities and integration actions.
TI-34: Insure that dead trees and branches near electric service for Islip Town facilities and infrastructure are removed or pruned back to reduce the possibility for interruption of service.	Continuous	Incorporate into Capabilities and integration actions.
TI-35: Increase public awareness of storm hazards and how to reduce injury and property damage. Provide outreach for vulnerable populations, such as residents of trailer parks and households where English is a second language.	Discontinued	Duplicative – see 25 and 36
TI-36: Work with trailer parks to insure evacuation of residents when high winds are expected	Continuous	Incorporate into Capabilities and integration actions.
TI-37: Insure that branches are pruned away from electric and telephone wires and dead standing trees are removed where they may fall on wires.	Continuous	Incorporate into Capabilities and integration actions.
TI-38: Insure that salt and sand are stockpiled for icing events.	Continuous	Incorporate into Capabilities and integration actions.
TI-39: Increase public awareness of hazards from ice storms through the Islip Town Website and publications.	Discontinued	Duplicative with other initiatives
TI-40: Insure that injurious amounts of salt and sand do not wash into environmentally sensitive areas.	Continuous	Incorporate into Capabilities and integration actions.
TI-41: Purchase sand dome for salt/sand storage at Long island MacArthur Airport $145,000	100% Completed	Completed in 2011
TI-42: Insure that roadways are cleared and salted in an efficient manner	Continuous	Incorporate into Capabilities and integration actions.
TI-43: Encourage placing utilities underground in future subdivisions to reduce damage from ice storms.	Continuous	REQUIRED BY LAW. PENALIZED IF NOT DONE
TI-44: Continue to enforce codes and regulations regarding construction and building occupancy.	Continuous	Incorporate into Capabilities and integration actions.
TI-45: Insure that all Town buildings are in compliance with fire code and that fire protection is in place and operational.	Continuous	Incorporate into Capabilities and integration actions.

Description	Status	Review Comments
TI-46: Increase public awareness of fire prevention and safety. Continue outreach to vulnerable population including the elderly, disabled, economically disadvantaged and households where English may be a second language.	Continuous	Incorporate into Capabilities and integration actions.
TI-47: Fund private organizations to further enhance outreach to vulnerable populations.	Discontinued	
TI-48: Encourage use of additional fire resistant construction measures for new construction and retrofit.	Continuous	Incorporate into Capabilities and integration actions.
TI-49: Purchase Emergency Generator for the Long Island McArthur Airport Terminal Building. $1,000,000	Unknown	Grant funding is being pursued
TI-50: Purchase sprinkler system for Long Island McArthur Airport Terminal Building. 1,300,000	100% Completed	Completed in 2008
TI-51: Purchase in-line baggage handling system equipped with explosive device detection system. 3,000,000	Discontinued	
TI-52: Install surveillance cameras and security gates on DPW heavy equipment and fueling facilities.	75% Completed	Updated wording to apply to more facilities.
TI-53: Increase public awareness of Terrorism Hazard. "If you see something, say something".	90% Completed	Incorporate into Capabilities and integration actions.
TI-54: Purchase Emergency Equipment to Enhance Response capability: Oshkosh ARFF Vehicle-1500 series for aircraft firefighting $790,000 Upgrade communications equipment for emergency response at Long Island MacArthur Airport $100,000 Purchase Self Contained Breathing Apparatus for Fire Rescue 15 units at $5,000 each= $75,000	Unknown	Updated to investigate options to purchase additional emergency vehicles
TI-55: Install Blast Fence and RON (remain overnight) fence slats $500,000	Discontinued	
TI-56: Train a cadre of Park and Nature center employees in wildland fire prevention and basic firefighting.	Unknown	Removed references to firefighting
TI-57: Provide basic equipment for nature center and parks (Indian Pumps/ fire broom/ flapper for small spot fires.	Discontinued	
TI-58: Provide information to the public on wildfire prevention.	Continuous	
TI-59: Insure that all Islip Town facilities have back up power generation or have a system in place to prevent pipes from freezing during a power outage.	Continuous	HMGP PROJECTS - GENERATORS
TI-60: Provide information to the public on the danger of heat and cold emergencies and where shelters will be located.	Continuous	Incorporate into Capabilities and integration actions.
TI-61: Open emergency shelters when necessary (heat or cold emergencies)	Continuous	Incorporate into Capabilities and integration actions. Town will continue to coordinate with Suffolk County in regards to shelters and heating/cooling centers.
TI-62: Install backup power generators for centers that would be used for heat and cold weather emergencies.	Unknown	Split into several individual initiatives
TI-63: Review Current Town Building Code with regard to HAZUS model of 1884 Earthquake.	Continuous	Incorporate into Capabilities and integration actions.
TI-64: Provide information on earthquake safety to the public.	Continuous	
TI-65: Insure that there is a provision for earthquake hazards in the Islip Town Emergency Response Operation Plan.	Continuous	Maintenance of the plan is ongoing; this is captured in the Integration Actions
TI-66: Insure that all future construction projects for Islip Town are in compliance with earthquake hazard requirements.	Continuous	Incorporate into Capabilities and integration actions.
TI-67: Continue to work with the USDA to educate the public.	Continuous	Incorporate into Capabilities and integration actions.
TI-68: Insure that wood or wood products from USDA Quarantine area are not removed and used for projects in other areas.	Continuous	Incorporate into Capabilities and integration actions.
TI-69: Employ water conservation measures for all Islip Town buildings and grounds.	Continuous	Incorporate into Capabilities and integration actions.

Description	Status	Review Comments
TI-70: Encourage the use of drought resistant plants for Islip Town Plantings.	Continuous	Incorporate into Capabilities and integration actions.
TI-71: Continue to hold the annual rabies vaccination clinic for pets.	Continuous	Incorporate into Capabilities and integration actions.
TI-72: Continue to utilize Islip Town website and printed materials to educate the public about West Nile Virus, Lyme Disease and rabies.	Continuous	TOWN OF ISLIP WEBLINK TO COUNTY OR OTHER GOV'T WEBSITE
TI-73: Work with Suffolk County Health Department on POD (Point of Distribution) placement.	Continuous	Incorporate into Capabilities and integration actions.
TI-74: Continue program for placing "Drains to Bay" medallions on storm drains.	100% Completed	REPLACE WHEN DAMAGED/AS NEEDED
TI-75: Use Islip Town website and print material to encourage recycling of waste oil and other recyclables. Continue "STOP" program (Stop throwing out pollutants).	Continuous	Incorporate into Capabilities and integration actions.
TI-76: Upgrade decontamination supplies and equipment.	Continuous	Incorporate into Capabilities and integration actions.
TI-77: Reduce the number of trees that are in conflict with overhead utilities.	Continuous	Town will continue to work with utility companies to address properties of concern.
TI-78: Insure that surge protection is in place for all electric and electronic equipment in Town facilities and buildings.	Continuous	Incorporate into Capabilities and integration actions.
TI-79: Use Islip Town website and print materials to educate the public on safety during utility failure.	Continuous	Incorporate into Capabilities and integration actions.
TI-80: Insure that all Islip Town employees are aware of the dangers at rail road grade crossings. Partner with L.I.R.R.	Continuous	
TI-81: Continue to educate the public about the dangers at grade crossings. Partner with L.I.R.R.	Continuous	Incorporate into Capabilities and integration actions.
TI-82: Optical Preemption Signal- Town wide	Continuous	
TI-83: Traffic Safety projects (10): Intersection improvements Turn Lanes Community Islands and Dividers Roadway Reconstruction Traffic Signal Improvements Traffic Calming	Continuous	Incorporate into Capabilities and integration actions.
TI-84: Continue to collect data regarding past events and analyze potential future events.	Continuous	Incorporate into Capabilities and integration actions.
TI-85: Inspect all Islip Town buildings and facilities to insure their structural soundness.	Continuous	Incorporate into Capabilities and integration actions.
TI-86: Use the Town website and print material to educate the public to the danger of construction that does not comply with code and the necessity to obtain building permits and certificates of occupancy.	Continuous	Incorporate into Capabilities and integration actions.
TI-87: Insure that All construction in Islip Town is to code.	Continuous	Incorporate into Capabilities and integration actions.
TI-88: Continue to provide information to the public regarding disaster preparation	Continuous	Incorporate into Capabilities and integration actions.
TI-89: Coordinate disaster relief response with appropriate governmental and NGO agencies to insure that disaster shelters are properly selected and stocked	Continuous	Incorporate into Capabilities and integration actions.
TI-90: Continue to provide an opportunity for the public to voice their opinions through open, public meetings and timely response to citizen inquiries.	Continuous	Incorporate into Capabilities and integration actions.
TI-91: Provide educational and recreational opportunities for at-risk youth to counter the beliefs, rituals and habits of gang culture.	Continuous	Incorporate into Capabilities and integration actions.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Islip 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 9.24-11 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 9.24-12 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.24-11. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
TI-1	Town of Islip Comprehensive All-Hazards Emergency Operations Plan	See Action Worksheet (TI-1 - LOI 225 - 032814)									
TI-7	Sandy HMGP LOI #179 - Purchase and install digital interoperable radios at all sites for all DEC site supervisors, foremen, inspectors, collection drivers and administrative personnel.	See Action Worksheet (TI-7 - LOI 179 - 032814)									
TI-8	Sandy HMGP LOI #180 – Install microwave links to our four major sites which have responsibility for collection, receiving and processing of vegetative as well as solid and hazardous storm debris.	See Action Worksheet (TI-8 - LOI 180 - 032814)									
TI-9	Sandy HMGP LOI #219 – Create a wireless backup infrastructure to prevent communications interruptions.	See Action Worksheet (TI-9 - LOI 219 - 032814)									
TI-10	Sandy HMGP LOI #340 - Relocate the current EOC to the FAA Flight Service Station at the Long Island MacArthur Airport facility	See Action Worksheet (TI-10 - LOI 340 - 032814)									
TI-11	Sandy HMGP LOI #400 – Purchase equipment necessary to capture damage assessment information	See Action Worksheet (TI-11 - LOI 400 - 032814)									
TI-12	Sandy HMGP LOI #440 - Harden, advance and expand the existing EOC to create a more robust center designed to further protect Islip Town and its residents.	See Action Worksheet (TI-12 - LOI 440 - 032814)									
TI-13	Sandy HMGP LOI #661 - Harden of Town Hall West by employing measures that	See Action Worksheet (TI-13 - LOI 661 - 032814)									

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
	would reinforce necessary staging for a disaster recovery center, communication and public gathering centers, personnel and shelter staging areas										
TI-14	Sandy HMGP LOI #694 – Harden critical facilities against hazard impacts.	See Action Worksheet (TI-14 - LOI 694 - 032814)									
TI-15	Sandy HMGP LOI #1248 – Restore and prevent damage to the docks from future events.	See Action Worksheet (Islip - LOI 1248 - Atlantique Bulkheading- 032814)									
TI-16	Sandy HMGP LOI #1253 - Raise the existing structures at Atlantique and consolidate functionality to allow for a satellite Emergency Operations Center and shelter for residents.	See Action Worksheet (Islip - LOI 1253 - Atlantique Centralized - 032814)									
TI-17	Sandy HMGP LOI #1406 – Elevate flood-prone roadways.	See Action Worksheet (Islip - LOI 1406 - Road Raising Phase I - 032814)									
TI-18	Sandy HMGP LOI #1513 – Install back-up power generators at the Long Island McArthur Airport Maintenance and Snow Facility.	See Action Worksheet (Islip - LOI 1513 - MacArthur Backup Gen - 032814)									
TI-19	Sandy HMGP LOI #1576 – Install a back-up power generator at the MacArthur Composting facility.	See Action Worksheet (Islip - LOI 1576 - MacArthur Compost Gen - 032814)									

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
TI-20	Sandy HMGP LOI #1578 - Purchase & installation of 3 natural gas generators for the scale house, office and maintenance shop at the Hauppauge Landfill.	See Action Worksheet (Islip - LOI 1578 - Hauppauge Landfill Gen - 032814)									
TI-21	Sandy HMGP LOI #1931 – Install back-up power generators at critical Town facilities.	See Action Worksheet (Islip - LOI 1931 - DPW Generators - 032814)									
TI-22	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: • 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) • County-Wide Debris Management Plan • Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) • 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	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	LPR, SIP
TI-23	Assess and prioritize need for generators at critical town facilities and to maintain operations during power outages. Implement as funding becomes available.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	2, 13, 14, 15, 16	Islip Town DPW			TBD	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
TI-24	Research and prioritize town structures that are located within the flood plain, analyze mitigation options to prevent flooding and implement as funding becomes available.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm	2, 6, 8, 9, 13, 14, 15, 16, 17	Islip Town DPW			TBD	DOF	Medium	SIP
TI-25	Add storage (temporary and mobile) for gas and diesel in the Long Island MacArthur Airport maintenance yard for use by other town departments, and/or designated organizations, e.g. community ambulances.	See Action Worksheet (Islip - AW 9 - Storage of Gas and Diesel- 040114)									
TI-26	Investigate options to purchase additional needed emergency vehicles (high axel emergency response vehicles, debris removal trucks, etc.) necessary to access or maintain access to residential areas that are otherwise inaccessible due to flood, debris, etc. during and post critical events.	N/A	Coastal Erosion, Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	8, 12, 13, 14	Islip Town DPW			TBD	DOF	High	SIP, LPR
TI-27	Research options and prioritize critical locations / town facilities to employ various methods of alternative energy including but not limited to: solar, wind, storage cells, etc.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	6, 13, 16	Islip Town DEC			TBD	DOF	High	SIP
TI-28	Work together with the County and others to bring, National Incident Management System, State Emergency Management System, and Incident Command System training/workshops into the community where appropriate community officials and staff will	N/A	Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW,	6, 7, 13, 14	Islip Town Public Safety			TBD	DOF	Medium	LPR, EAP

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	actively participate.		Wildfire, Winter Storm								
TI-29	Undertake an assessment of need, options, priorities and funding availability to employ a wireless communication system to contact employees on and off the job ensuring the ability to communicate during critical events. Implement as funding becomes available.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	12, 13, 14	Islip Town Information Technology			TBD	DOF	High	LPR, SIP
TI-30	Undertake an assessment of need, options, priorities and funding availability to expand the current HR computer system to enable the tracking of employee training and coding employ time worked on emergency clean up or projects. Implement as funding becomes available.	N/A	Earthquake, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	14	Islip Town Information Technology.			TBD	DOF	High	LPR, SIP
TI-31	Undertake an assessment of need, options, priorities and funding availability to purchase and utilize electronic devices (i.e. laptops, tablets, etc.) to more efficiently maintain government operations from various remote locations in time of emergency ensuring the ability to operate during critical events. Implement as funding becomes available.	N/A	Earthquake, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	14	Islip Town Information Technology			TBD	DOF	Medium	LPR, SIP
TI-32	Develop, train and employ protocols for each department to operate from a remote location in the event that functioning from the departments normal work space is impractical or impossible due to emergency conditions (power, flood, damage, etc.) ensuring the	New and Existing	Earthquake, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	12, 13, 14	Islip Town Information Technology			TBD	DOF	Medium	LPR

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
	ability to operate during critical events.										
TI-33	Establish a dedicated phone line for town related calls for service and publicize that number through various forms of media, internet, mailings, etc.	N/A	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 13, 14	Islip Town Information Technology			TBD	DOF	Medium	LPR, SIP
TI-34	Develop and implement protocols for issuance of critical documents (i.e. issuance of death certificates, burial transport permits, etc.) during the immediate aftermath of an emergency or other catastrophic event involving mass fatalities.	N/A	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	14, 16	Islip Town Clerk's Office			TBD	DOF	Medium	LPR, SIP
TI-35	Research location, design and cost options to create a dry storage room for vulnerable town documents in the vacant flight services facility at the Long Island MacArthur Airport ensuring that historical documents are safe, accessible and secure allowing for no loss of information during and post critical events. Implement as funding becomes available.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 7, 15, 16	Islip Town Clerk's Office			TBD	DOF	Medium	LPR, SIP
TI-36	Research location, design and cost options to increase storage capacity for tangible records and install fire proof vaults or safes at various town facilities to properly store and protect vital records. . Implement as	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 15, 16	Islip Town Clerk's Office			TBD	DOF	Medium	LPR, 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
	funding becomes available.										
TI-37	Research location, design and cost options to increase storage capacity for digital records and procure Scanning Equipment to digitize documents and other important records ensuring no records are lost. Implement as funding becomes available.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 15, 16	Islip Town Information Technology			TBD	DOF	Medium	LPR, SIP
TI-38	Retrofit the Tax Receiver's Office located at 40 Nassau Avenue with a second story addition. This facility would need a freight elevator or lift system in order to move items to the second floor and for handicap accessibility. The building would benefit from the addition of structural security to hurricane proof the building and windows.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 15, 16	See Action Worksheet (TI-38- AW-031414)						
TI-39	Working with the County and adjacent communities develop a public education and outreach campaign targeted at residents and businesses with the goal to equip them with knowledge needed to be more prepared for an event and resilient when an event occurs including. Promote at public education events and publicize such events via communications tools, encouraging or initiating disaster planning in the business community.	New and Existing	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 3, 5, 7, 8, 9	Islip Town Economic Dev.			TBD	DOF	Medium	LPR, EAP
TI-40	Identify and maintain a list of locations within the Town of Islip that have sophisticated communication capabilities and redundant power supplies	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm,	7, 12, 13, 14, 16	Islip Town Economic Dev.			TBD	DOF	High	LPR, 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
	that can help minimize business interruption.		Wildfire, Winter Storm								
TI-41	Encourage large companies with required capabilities to arrange for gas tanker shipments directly to their facilities, where they could dispense gas remotely to their fleet and/or employees. This would limit trucking issues and enable employees to commute to their place of employment.	N/A	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	1, 7, 12, 13, 14, 16	Islip Town Economic Dev.			TBD	DOF	High	LPR, SIP
TI-42	Develop, design and launch an alternative emergency website for Town residents which will serve as a year round public education tool and serve as a primary communications tool during active emergencies.	N/A	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 12, 15	Islip Town Public Information			TBD	DOF	High	LPR, SIP, EAP
TI-43	Expand government access channel 18 programming and technology capabilities to promote ongoing preparedness education and to broadcast critical guidance during emergencies.	N/A	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 12, 15	Islip Town Public Information			TBD	DOF	High	LPR, SIP, EAP
TI-44	Develop, print and mail a geographic based safety guide for Town of Islip residents to improve communications before,	N/A	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood,	1, 12	Islip Town Public Information			TBD	DOF	High	LPR, SIP, EAP

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	during and after emergencies.		Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm								
TI-45	Investigate the need, options and costs and various grants or funding availability to purchase charging station equipment for residents to use during prolonged utility failures. Implement as funding becomes available.	N/A	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	1, 13, 16	Islip Town Information Technology			TBD	DOF	High	LPR, SIP
TI-46	Investigate the need, options and costs and various grant or funding availability to purchase and establish an automated phone call system to deliver pre-recorded messaging during active emergencies and to provide instructional information about major emergency events.	N/A	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	1, 7, 12, 13, 14, 15	Islip Town Information Technology			TBD	DOF	High	LPR, SIP, EAP
TI-47	Contract language translation services to ensure public emergency written and broadcast messaging reaches non-English speaking audiences and participate with other organizations to effectively reach all residents (English and non-English speaking).	N/A	Coastal Erosion, Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 7, 12, 14	Islip Town Public Information			TBD	DOF	High	LPR, SIP, EAP
TI-48 (NY Rising	Living Marsh - Add additional pipes to increase circulation between the Grand Canal and the	New	Coastal Erosion, Expansive Soils, Flood, Groundwater	2, 5, 8, 9, 11, 15, 17	See Action Worksheet - Incomplete (TI-48 - NY Rising Oakdale-West Sayville 1 -032614)						

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
Oakdale -West Sayville 1)	wetlands (Oakdale).		Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm								
TI-49 (NY Rising Oakdale -West Sayville 2)	Remove bulkhead and add fill (sand, berms, beach grass, etc.) to provide storm surge protection along the waterfront	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	2, 5, 8, 9, 11, 15, 16, 17	See Action Worksheet (TI-49 - NY Rising Oakdale-West Sayville 2– 032614)						
TI-50 (NY Rising Oakdale -West Sayville 3)	Identify roads that are low lying and fund construction of the roads that are deemed as the highest priority to mitigate from flooding.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	2, 5, 9, 11, 12, 13, 14, 15, 16, 17	See Action Worksheet- Incomplete (TI-50 - NY Rising Oakdale-West Sayville 3 - I032614)						
TI-51 (NY Rising Oakdale -West Sayville 4)	Identify outfall pipes that lead to the most severe flooding and affect the most properties. Install an appropriate check valve system.	Existing	Coastal Erosion, Flood, Groundwater Contamination (natural), Hurricane, Nor'Easter, Severe Storm	2, 5, 8, 9, 11, 13, 14, 15, 16, 17	See Action Worksheet- Incomplete (TI-51 - NY Rising Oakdale-West Sayville 4 - 032614)						
TI-52	Emergency shelter sites – evaluate sites, develop a site plan, ensure emergency power is available, and have a standing supply of necessary materials to accommodate a large temporary population.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	2, 13, 14, 16			$380,000	CDBG DR	DOF	High	LPR, SIP, EAP
TI-53	Assess and prioritize options to improve drainage along roadways, and implement as funding becomes available.	New and Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	2, 8, 9, 12, 13, 14, 15, 16, 17	Islip Town Public Works			TBD	DOF	Medium	LPR, SIP
TI-54	Improve preparedness in the	N/A	Coastal Erosion,	1, 7, 14			$100,000	CDBG DR	DOF	High	LPR,

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
	Oakdale/West Sayville community by coordinating with various emergency response agencies and developing educational materials.		Drought, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm								SIP, EAP
TI-55	Explore the feasibility of a pilot project to install a "smart meter" system so that individual residential and commercial properties that are safe to occupy could be re-energized without having to wait for all other properties to be certified as safe.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	14, 16			$50,000	CDBG DR	DOF	High	LPR, SIP
TI-56	Develop an Oakdale Central Business District Master Implementation Plan that would identify in a specific manner what would be necessary to accomplish the Vision 2008 plan.	New and Existing	Coastal Erosion, Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	7, 14			$300,000	CDBG DR	DOF	High	LPR, SIP
TI-57 (NY Rising Oakdale -West Sayville 5)	Develop a tertiary level wastewater treatment system.	New and Existing	Drought, Earthquake, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	2, 5, 8, 11, 14, 15, 16, 17	See Action Worksheet - Incomplete (TI-57 - NY Rising Oakdale-West Sayville 5 - 032614)						
TI-58 (NY Rising West	Identify and supply a facility for use as a local drop-in center and distribution center in West Islip; install a back-up power generator at this	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm,	2, 12, 14, 16	See Action Worksheet - Incomplete (TI-58 - West Islip 1 - 032614)						

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
Islip-1)	facility if none exists.		Wildfire, Winter Storm								
TI-59	Designate the pre-approved use of large parking areas out of the flood risk areas, where residents who live in flood zones can park and be assured their vehicles will not be ticketed or towed.	Existing	Flood, Hurricane, Nor'Easter, Severe Storm	12, 13, 15, 16			$25,000	CDBG DR	DOF	Medium	LPR, SIP, EAP
TI-60	Implement measures to protect vulnerable populations by maintaining and expanding health care services in the post-disaster context.	N/A	Drought, Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	7, 13, 14, 16			$600,000 - $800,000	CDBG DR	DOF	High	LPR, SIP
TI-61	Identify a series of incentives for residents to build resiliency into their homes in risk areas.	New and Existing	Coastal Erosion, Earthquake, Expansive Soils, Flood, Groundwater Contam, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	1, 2, 6, 9, 10, 11, 14, 15, 17			$600,000	CDBG DR	DOF	High	LPR, SIP, EAP
TI-62	Study and prepare a long-term capital improvement program focused on drainage, that incorporates the entire "green" infrastructure and "gray" infrastructure systems, to establish the blueprints for significant long-term drainage improvement investments.	New and Existing	Coastal Erosion, Flood, Groundwater Contam, Hurricane, Nor'Easter, Severe Storm, Shallow GW	2, 8, 9, 11, 13, 14, 15, 16, 17			$300,000	CDBG DR	DOF	High	LPR, SIP, NPR
TI-63 (NY Rising West Islip-2)	Implement flood-proofing measures to electrical controls, and install backup power, for two drainage pump stations in the Sequams neighborhood (Eaton Lane	Existing	Flood, Hurricane, Nor'Easter, Severe Storm	2, 8, 9, 11, 14, 15, 16, 17	See Action Worksheet – Incomplete (TI-63 - West Islip 2 - 032614)						

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
	and Sequams Center lane)										
TI-64 (NY Rising West Islip-31)	Rehabilitate Willetts Creek to relieve flooding that occurs due to siltation, debris, and other blockages of the creek corridor and underground culverts.	Existing	Coastal Erosion, Expansive Soils, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Winter Storm	5, 8, 9, 11, 15, 17	See Action Worksheet – Incomplete (TI-64 - West Islip 3 - 032614)						
TI-65 (NY Rising West Islip-4)	Retrofit West Islip Marina and the beach's current pavilion with resilient design features to withstand future storm events, including elevation of the structure, raising electrical outlets, and adding wind-resistant windows and shutters.	Existing	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm	2, 5, 6, 7, 9, 11, 14, 15, 16	See Action Worksheet – Incomplete (TI-65 - West Islip 4 - 032614)						
TI-66	Install surveillance cameras and security gates critical facilities.	New and Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	12, 14, 15, 16	See Action Worksheet						
TI-67	Sandy HMGP LOI #1846 - Install an alternate source of power for the Bayshore Fire Department station.	Existing	Earthquake, Flood, Hurricane, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	2, 7, 13, 14, 15, 16	See Action Worksheet (TI-67-LOI 1846-031714)						
TI-68	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.	Existing	Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter	3, 7, 13, 14, 15, 16	PSEG, County	High	Low-Medium	Local	Short	High	LRP

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 9.24-12. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
TI-1 (Sandy HMGP LOI #225)	Town of Islip Comprehensive All-Hazards Emergency Operations Plan	1	1	1	1	1	1	1	1	0	1	1	1	0	1	12	High
TI-7	Sandy HMGP LOI #179 - Purchase and install digital interoperable radios	1	1	1	1	1	1	-1	0	1	1	0	1	1	0	9	Medium
TI-8	Sandy HMGP LOI #180 – Install microwave links	1	1	1	1	1	1	-1	0	1	1	0	1	1	0	9	High
TI-9	Sandy HMGP LOI #219 – Create a wireless backup infrastructure	1	1	1	1	1	1	-1	0	1	1	0	1	1	0	9	High
TI-10	Sandy HMGP LOI #340 - Relocate the current EOC	1	1	0	1	1	1	0	0	0	1	1	1	1	1	10	High
TI-11	Sandy HMGP LOI #400 – Purchase equipment necessary to capture damage assessment information	1	1	1	1	1	0	0	0	1	1	1	1	1	0	10	High
TI-12	Sandy HMGP LOI #440 - Harden, advance and expand the existing EOC	1	1	1	1	1	1	1	0	0	1	1	1	1	0	11	High
TI-13	Sandy HMGP LOI #661 - Harden of Town Hall □	1	1	1	1	1	1	-1	0	0	1	1	1	1	0	9	High
TI-14	Sandy HMGP LOI #694 – Harden critical facilities	1	1	1	1	1	1	-1	0	0	1	1	1	1	0	9	High
TI-15	Sandy HMGP LOI #1248 – Restore and prevent damage to the docks from future events.	1	1	0	0	1	0	-1	0	1	0	0	1	1	1	6	Medium
TI-16	Sandy HMGP LOI #1253 - Raise existing structures at Atlantique and consolidate functionality to allow for a satellite Emergency Operations Center and shelter for residents.	1	1	0	0	1	0	-1	0	1	0	0	1	1	1	6	Medium
TI-17	Sandy HMGP LOI #1406 – Elevate flood-prone roadways.	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	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
TI-18	Sandy HMGP LOI #1513 – Install back-up power generators at the Long Island McArthur Airport Maintenance and Snow Facility.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-19	Sandy HMGP LOI #1576 – Install generator at the MacArthur Composting facility.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-20	Sandy HMGP LOI #1578 - Generators at the Hauppauge Landfill.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-21	Sandy HMGP LOI #1931 – Install back-up power generators at critical Town facilities.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-22	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1)	1	1	1	1	1	1	0	0	0	1	1	1	0	1	10	High
TI-23	Assess and prioritize need for generators at critical town facilities and to maintain operations during power outages. Implement as funding becomes available.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-24	Research and prioritize town structures that are located within the flood plain, analyze mitigation options to prevent flooding and implement as funding becomes available.	1	1	1	1	0	1	0	1	0	1	1	0	1	1	10	Medium
TI-25	Add storage (temporary and mobile) for gas and diesel in the Long Island MacArthur Airport maintenance yard.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-26	Investigate options to purchase additional needed	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	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
	emergency vehicles (high axel emergency response vehicles, debris removal trucks, etc.) necessary to access or maintain access to residential areas that are otherwise inaccessible due to flood, debris, etc. during and post critical events.																
TI-27	Research options and prioritize critical locations / town facilities to employ various methods of alternative energy including but not limited to: solar, wind, storage cells, etc.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-28	Work together with the County and others to bring, National Incident Management System, State Emergency Management System, and Incident Command System training/workshops into the community where appropriate community officials and staff will actively participate.	1	1	0	1	1	1	0	0	0	0	1	1	1	1	9	Medium
TI-29	Undertake an assessment of need, options, priorities and funding availability to employ a wireless communication system to contact employees on and off the job ensuring the ability to communicate during critical events. Implement as funding becomes available..	1	1	1	1	1	1	0	0	0	0	1	1	1	1	10	High
TI-30	Undertake an assessment of need, options, priorities and funding availability to expand the current HR computer system to enable	1	1	1	1	1	1	0	0	0	0	1	1	1	1	10	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
	the tracking of employee training and coding employ time worked on emergency clean up or projects. Implement as funding becomes available.																
TI-31	Undertake an assessment of need, options, priorities and funding availability to purchase and utilize electronic devices (i.e. laptops, tablets, etc.) to more efficiently maintain government operations from various remote locations in time of emergency ensuring the ability to operate during critical events. Implement as funding becomes available.	1	0	0	1	1	1	0	0	1	0	1	1	0	1	8	Medium
TI-32	Develop, train and employ protocols for each department to operate from a remote location in the event that functioning from the departments normal work space is impractical or impossible due to emergency conditions (power, flood, damage, etc.) ensuring the ability to operate during critical events.	1	0	0	1	1	1	0	0	1	0	1	1	0	1	8	Medium
TI-33	Establish a dedicated phone line for town related calls for service and publicize that number through various forms of media, internet, mailings, etc.	1	0	0	1	1	1	0	0	1	0	1	1	0	1	8	Medium
TI-34	Develop and implement protocols for issuance of critical documents (i.e. issuance of death certificates, burial transport permits, etc.) during the immediate	1	0	0	1	1	1	0	0	1	0	1	1	0	1	8	Medium

Mitigation Action / Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
	aftermath of an emergency or other catastrophic event involving mass fatalities.																
TI-35	Research location, design and cost options to create a dry storage room for vulnerable town documents in the vacant flight services facility at the Long Island MacArthur Airport ensuring that historical documents are safe, accessible and secure allowing for no loss of information during and post critical events. Implement as funding becomes available.	1	1	1	1	1	1	0	0	1	0	1	1	0	1	10	Medium
TI-36	Research location, design and cost options to increase storage capacity for tangible records and install fire proof vaults or safes at various town facilities to properly store and protect vital records. . Implement as funding becomes available.	1	0	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
TI-37	Research location, design and cost options to increase storage capacity for digital records and procure Scanning Equipment to digitize documents and other important records ensuring no records are lost. Implement as funding becomes available.	1	0	1	1	1	1	0	0	1	0	1	1	0	1	9	Medium
TI-38	Retrofit the Tax Receiver's Office located at 40 Nassau Avenue with a second story addition. This facility would need a freight elevator or lift system in order to move items to the second floor and for handicap accessibility.	0	1	1	1	1	1	0	0	1	0	1	1	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 Objectives	Total	High / Medium / Low
	The building would benefit from the addition of structural security to hurricane proof the building and windows.																
TI-39	Working with the County and adjacent communities develop a public education and outreach campaign targeted at residents and businesses with the goal to equip them with knowledge needed to be more prepared for an event and resilient when an event occurs including. Promote at public education events and publicize such events via communications tools, encouraging or initiating disaster planning in the business community.	0	0	0	1	1	1	0	0	1	0	1	1	0	1	7	Medium
TI-40	Identify and maintain a list of locations within the Town of Islip that have sophisticated communication capabilities and redundant power supplies that can help minimize business interruption.	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-41	Encourage large companies with required capabilities to arrange for gas tanker shipments directly to their facilities, where they could dispense gas remotely to their fleet and/or employees. This would limit trucking issues and enable employees to commute to their place of employment.	1	0	1	1	1	1	0	0	1	0	1	1	0	1	9	High
TI-42	Develop, design and launch an alternative emergency	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	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
	website for Town residents which will serve as a year round public education tool and serve as a primary communications tool during active emergencies.																
TI-43	Expand government access channel 18 programming and technology capabilities to promote ongoing preparedness education and to broadcast critical guidance during emergencies.	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-44	Develop, print and mail a geographic based safety guide for Town of Islip residents to improve communications before, during and after emergencies.	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-45	Investigate the need, options and costs and various grant or funding availability to purchase charging station equipment for residents to use during prolonged utility failures. Implement as funding becomes available.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-46	Investigate the need, options and costs and various grant or funding availability to purchase and establish an automated phone call system to deliver pre-recorded messaging during active emergencies and to provide instructional information about major emergency events.	1	0	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-47	Contract language translation services to ensure public emergency written and	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	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
	broadcast messaging reaches non-English speaking audiences and participate with other organizations to effectively reach all residents (English and non-English speaking).																
TI-48 (NY Rising Oakdale-West Sayville 1)	Living Marsh - Add additional pipes to increase circulation between the Grand Canal and the wetlands (Oakdale).																Pending
TI-49 (NY Rising Oakdale-West Sayville 2)	Remove bulkhead and add fill (sand, berms, beach grass, etc.) to provide storm surge protection along the waterfront																Pending
TI-50 (NY Rising Oakdale-West Sayville 3)	Identify roads that are low lying and fund construction of the roads that are deemed as the highest priority to mitigate from flooding.																Pending
TI-51 (NY Rising Oakdale-West Sayville 4)	Identify outfall pipes that lead to the most severe flooding and affect the most properties. Install an appropriate check valve system.																Pending
TI-52	Emergency shelter sites – evaluate sites, develop a site plan, ensure emergency power is available, and have a standing supply of necessary materials to accommodate a large	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	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
	temporary population.																
TI-53	Assess and prioritize options to improve drainage along roadways, and implement as funding becomes available.	0	1	0	0	0	1	0	1	0	1	1	0	1	1	7	Medium
TI-54	Improve preparedness in the Oakdale/West Sayville community by coordinating with various emergency response agencies and developing educational materials.	1	1	1	1	1	1	1	1	1	1	1	1	0	1	13	High
TI-55	Explore the feasibility of a pilot project to install a "smart meter" system so that individual residential and commercial properties that are safe to occupy could be re-energized without having to wait for all other properties to be certified as safe.	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-56	Develop an Oakdale Central Business District Master Implementation Plan that would identify in a specific manner what would be necessary to accomplish the Vision 2008 plan.	1	1	1	1	1	1	1	1	1	1	1	1	0	1	13	High
TI-57 (NY Rising Oakdale-West Sayville 5)	Develop a tertiary level wastewater treatment system.																Pending
TI-58 (NY Rising West Islip-1)	Identify and supply a facility for use as a local drop-in center and distribution center in West Islip; install a back-up power generator at this facility if none exists.																Pending

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
TI-59	Designate the pre-approved use of large parking areas out of the flood risk areas, where residents who live in flood zones can park and be assured their vehicles will not be ticketed or towed.	1	1	1	1	1	1	1	-1	1	1	0	0	0	1	9	Medium
TI-60	Implement measures to protect vulnerable populations by maintaining and expanding health care services in the post-disaster context.	1	1	1	1	1	1	1	0	1	0	1	1	0	1	11	High
TI-61	Identify a series of incentives for residents to build resiliency into their homes in risk areas.	1	1	1	1	1	1	1	0	1	1	1	0	0	1	11	High
TI-62	Study and prepare a long-term capital improvement program focused on drainage, that incorporates the entire “green” infrastructure and “gray” infrastructure systems, to establish the blueprints for significant long-term drainage improvement investments.	0	1	1	1	1	1	1	0	1	0	1	1	0	1	10	High
TI-63 (NY Rising West Islip-2)	Implement flood-proofing measures to electrical controls, and install backup power, for two drainage pump stations in the Sequams neighborhood (Eaton Lane and Sequams Center lane)																Pending
TI-64 (NY Rising West Islip-3)	Rehabilitate Willetts Creek to relieve flooding that occurs due to siltation, debris, and other blockages of the creek corridor and underground culverts.																Pending

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
TI-65 (NY Rising West Islip-4)	Retrofit West Islip Marina and the beach's current pavilion with resilient design features to withstand future storm events, including elevation of the structure, raising electrical outlets, and adding wind-resistant windows and shutters.																Pending
TI-66	Install surveillance cameras and security gates critical facilities.	1	0	0	1	0	0	0	0	0	1	1	1	0	1	6	Low
TI-67	Sandy HMGP LOI #1846 - Install an alternate source of power for the Bayshore Fire Department station.	1	0	1	1	1	1	0	1	1	1	1	1	1	1	12	High
TI-68	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

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

9.24.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.24.8 Hazard Area Extent and Location

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

9.24.9 Additional Comments

None at this time.

Figure 9.24-1. Town of Islip Hazard Area Extent and Location Map 1

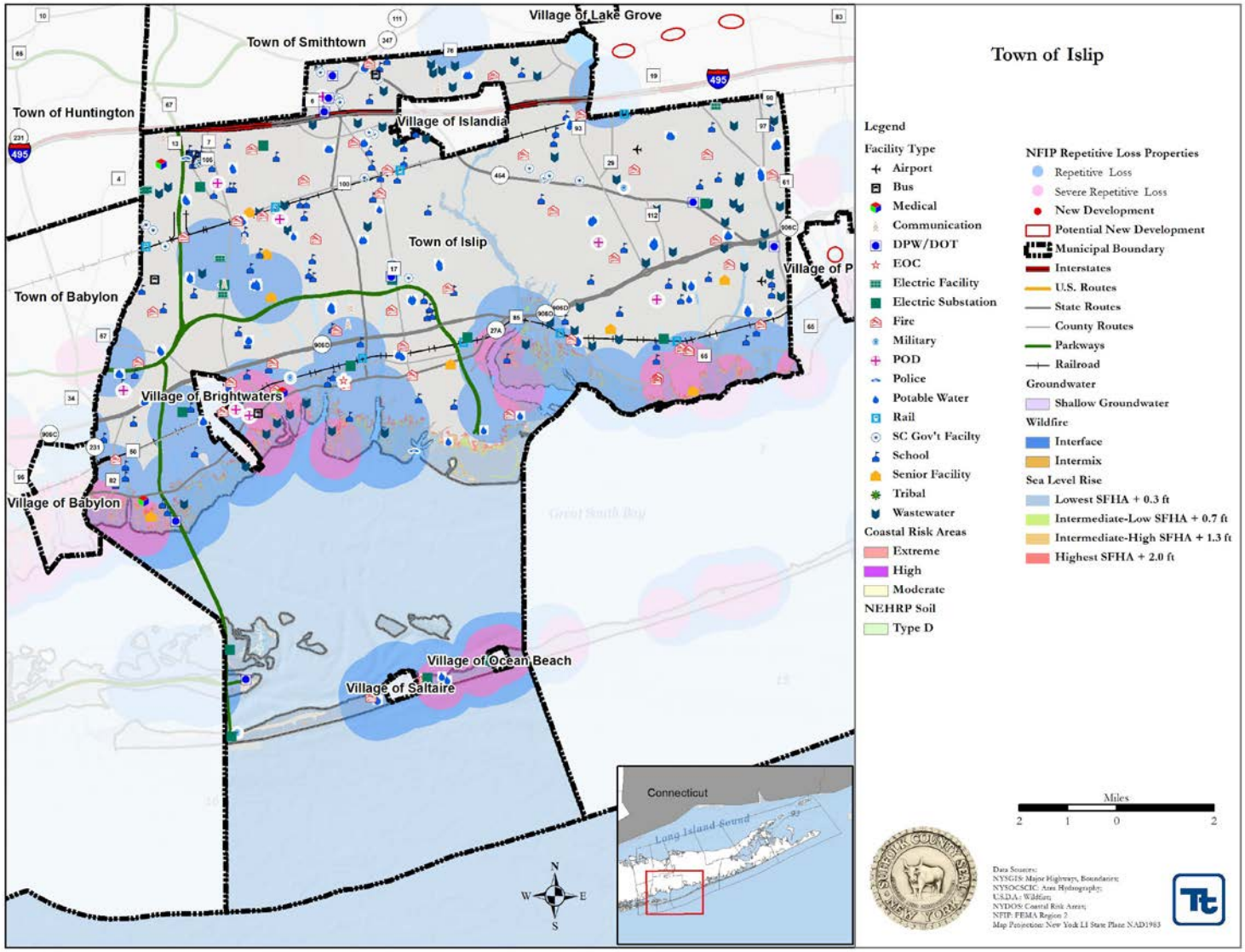
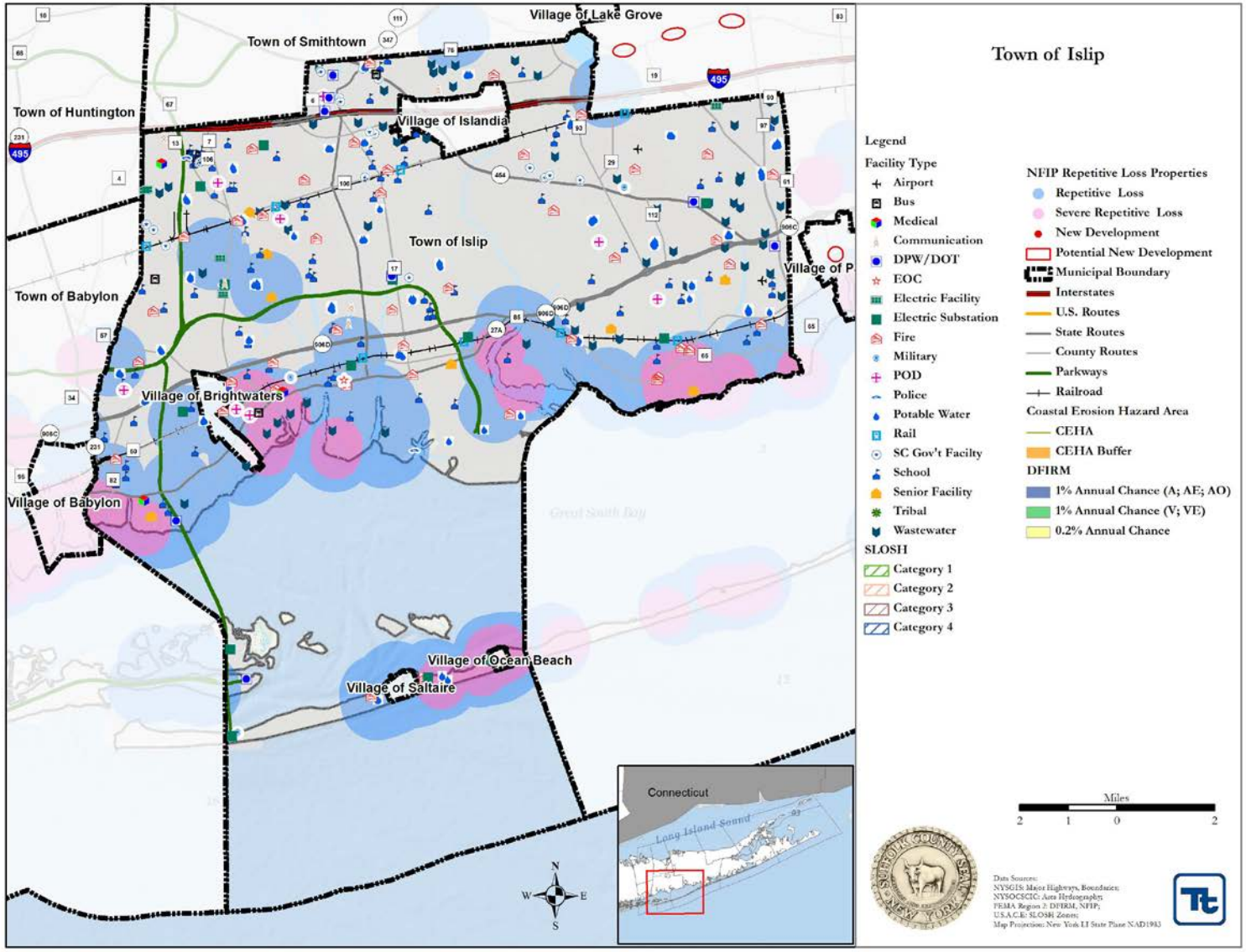


Figure 9.24-2. Town of Islip Hazard Area Extent and Location Map 2



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 Islip
Number: Sandy HMGP LOI #: 225
Mitigation Action/Initiative: Town of Islip Comprehensive All-Hazards Emergency Operations Plan

Assessing the Risk	
Hazard(s) addressed:	All Hazards
Specific problem being mitigated:	A key element of the Town of Islip's emergency response approach is to ensure that the Town's Emergency Operations Plan (EOP) is aligned with the State and Federal response plans and to ensure that its plans are comprehensive, risk-based, and all-hazard in approach. It is also the legal responsibility of Town government to marshal its resources and take the necessary and appropriate actions to protect people and property from the consequences of an emergency or disaster. While previous efforts have been made to develop a comprehensive all-hazards plan, the Town's existing Emergency Operations Plan does not totally meet that approach at this time. The Town's current plan is more storm-centric and focuses primarily on the Town's response to a hurricane or tropical storm. The universe of hazards that need to be addressed in the Town's Comprehensive All-Hazards EOP include: • Hurricane • Winter storm • Airplane crash • Earthquake • Pandemic outbreak • Hazmat • Power failure (sustained) • Terrorism • Tornado • Train derailment • Radiological release • Tsunami • Urban conflagration • Wildfire • Cybersecurity • Gas explosion
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. The alternative action is to take no action and use the current Emergency Response Plan.
	2.
	3.
Action/Project Intended for Implementation	

Description of Selected Action/Project	The Town intends to take the following mitigation measures for now: • The Town's Office of Emergency Management will take portions of the current Emergency Response Plan and update critical information for storm response including contact names phone numbers, latest SLOSH maps and flood zones, obtain updated copies of agency partners, etc. • Using the lessons learned from Superstorm Sandy and the action items identified in our After Action Report, we continue to address and implement action items that can do done in a reasonable timeframe and with budget means. • Utilize and implement stand-alone response plans such as the Hazardous Materials Response Plan while we await for much needed resources to start developing a comprehensive all hazards plan. Using the existing Emergency Response Plan, the Town's Office of Emergency Management will continue to implement elements of the plan including: • EOC Activation and Demob • EOC Staffing and Organizational Structure • Multi-Agency Coordination • Alert and Notifications • External Coordination • Handling of Information • Coordination with Field Response • Coordination with County and State • Continuity of Government (COG) • Continuity of Operations Planning (COOP) • Transition to Recovery • Federal Assistance The proposed Emergency Operations Plan will organize the Town's response to emergencies and disasters while providing for the welfare and safety of its residents. The Comprehensive EOP will set the lines of authority, responsibilities and organizational relationships, and demonstrate how all actions will be coordinated among the Town, village, county, state, and federal governments. The plan components shall include: • Review of existing regulations, plans, mutual aid agreements • Conduct hazard/risk analysis • Plan development • Validation of plan to ensure it conforms to regulatory requirements & federal/state standards • Conduct drills/exercises to test the plan • Plan maintenance and annual update/revision process • Printing of copies for distribution • Office supplies and stationery materials
Mitigation Action/Project Type	Local Plans and Regulations, Education and Awareness Program
Objectives Met	1, 4, 7, 12, 14
Applies to existing structures/infrastructure, future, or not applicable	Not applicable

Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$250,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 225

Mitigation Action/Initiative: Town of Islip Comprehensive All-Hazards Emergency Operations Plan

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

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Priority (High/Med/Low)		

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 Islip
Number: Sandy HMGP LOI #: 340
Mitigation Action/Initiative: Town of Islip Emergency Operations Center

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	The Town of Islip's Emergency Operations Center (EOC) located at 401 Main Street, Islip is located in a flood zone about one mile north of our coastal waterway and is highly vulnerable to experience flooding in the event of a Category 2 hurricane or greater. Access to and egress from the facility during a strong hurricane poses a critical threat not only to the continuity of operations for the Town but to the safety of all personnel reporting to the EOC during a major storm. As the nerve center for the Town's planning, response, and recovery to a large natural or man-made disaster, the Town's EOC should be located outside of a floodplain and in a hardened facility capable of withstanding severe weather and other external dangers. The Town's current EOC is located in an approximately 600 sq ft room where all Town and outside agency personnel report to during activation. There is a small 12' x 6' room used as a conference room. The building has no backup generator to support it during a loss of power nor are there any IT assets or fiber network in the building. Radio communications personnel use a small 4' x 12' space at the rear of the EOC. Personnel answering incoming and outgoing calls from our residents are also stacked up at the rear of the room with very little work space and noise coming from the EOC. In addition, there are no redundant air conditioning/ventilation/heating systems in the building. The roads leading to and surrounding the Town's Emergency Operations Center at 401 Main Street were flooded during Super Storm Sandy. It was just a matter of time when the floodwaters would have reached 401 Main Street from Super Storm Sandy or any future major hurricanes coming up the coast. The Town of Islip Emergency Operations Center operated without any backup generation or power source during Super Storm Sandy. The building has no IT assets or any fiber network to support critical communications.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no action and keep the Emergency Operations Center at 401 Main Street.
	2. Harden 401 Main Street to protect from flooding. Subject of another Mitigation Project.
	3.
Action/Project Intended for Implementation	

Description of Selected Action/Project	The Town of Islip plans to relocate its current EOC to a 10,000 sq ft building (FAA Flight Service Station) at the Long Island MacArthur Airport facility located at 150 Arrival Avenue in Ronkonkoma. This EOC will serve as a multijurisdictional emergency preparedness and response facility and will be centrally located whereupon members of the Critical Incident Management Staff consisting of a collaborative emergency response force including the Town of Islip, Suffolk County Police and Fire services, State entities, Federal agencies, including Customs and Transport Safety Administration, along with Public utilities can coordinate disaster planning, response and mitigation to critical incidents. The increased space will allow for our EOC to be effectively set up for the ICS/NIMS functions, other Emergency Support Functions (ESFs) as needed, and utilize available rooms for radio communications, constituent phone calls, Joint Information Center for media, breakout rooms, or a conference room. The Town of Islip intends to design and construct a new 2,500 sq ft Emergency Operations Center that features: location outside of a floodplain; increased available space to accommodate multijurisdictional agency representatives during a high level activation; secure facility with access control; accessibility to major roads; potential for expansion for future growth in staffing and technology. The proposed building is currently 50% vacant and will be fully vacant by September 2013. This increased space will allow for our EOC to be effectively set up for the ICS/NIMS functions, other Emergency Support Functions (ESFs) as needed, and utilize available rooms for radio communications, constituent phone calls, Joint Information Center for media, breakout rooms, or a conference room. The Town proposes the following mitigation measures to ensure continuous effective operations: • Installation of multiple communications infrastructure to support redundant communications systems: hard line phones, cellular communications, satellite phones, multiple radio systems • Installation of an emergency 80 kW dual-fed backup generator to power the entire facility during power interruptions • Installation of a fiber network • Installation of a centralized uninterrupted power source (UPS) • Installation and set-up of equipment for an Amateur Radio Operations Room for backup communications • Redundant heating/ventilation/air conditioning systems • Upgrade and redesign of proposed building to accommodate and effectively support the Town's Emergency Operations Center An audio-video display system, conference call and video-conference call capabilities, and access to NOAA weather information will assist in supporting critical EOC operations. Breakdown is as follows:

	Build-out/Renovation/Redesign	$750,000
	IT Infrastructure, Equipment, Upgrade	$250,000
	Backup Dual Fed-Generator	$175,000
	HVAC System Redundancy	$350,000
	Communications Equipment and Software	$350,000
	Annual Maintenance & Utilities	$ 25,000
	Miscellaneous – Furnishings, etc.	$100,000
	Estimated Project Cost	$2,000,000
Mitigation Action/Project Type	Structure and Infrastructure Project	
Objectives Met	2, 7, 13, 14, 15, 16	
Applies to existing structures/infrastructure, future, or not applicable	Existing structure	
Benefits (losses avoided)	Recent Damages: $0	
Estimated Cost	$2,000,000	
Priority*	High	
Plan for Implementation		
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety	
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.	
Potential Funding Sources	FEMA HMPG, EMPG, Town budget for local match	
Timeline for Completion	Short	
Reporting on Progress		
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:	

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

Prioritization

Number: Sandy HMGP LOI #: 340
Mitigation Action/Initiative: Town of Islip Emergency Operations Center

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	1	
Political	1	
Legal	1	
Fiscal	0	
Environmental	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	10	
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: Town of Islip
Number: Sandy HMGP LOI #: 400
Mitigation Action/Initiative: Town of Islip - GIS Mapping

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm
Specific problem being mitigated:	The primary geographic information systems (GIS - mapping) servers used in the Town's disaster response are located within a data center that is geographically removed from our Incident Command Center. Thus, our critical IT infrastructure which needed before, during, and after storm events cannot be fully relied upon. This is especially true during power outages that necessitate a separate generator power supply, including geographic isolation without reliable and consistent power supply to IT infrastructure. This problem has existed since the late 1990's—the inception of GIS technology in the Town. Formal damages to capital infrastructure do not occur; however, the continuity of government and any emergency response is severely hindered by a lack of appropriate GIS technology. The Super Storm Sandy Case Study further shows that, power outages aside, the ability of over 30 'CEDAR' Building Inspectors to adequately perform a 'rapid building assessment' was hindered by relying on a paper-based form (which necessitates hundreds of hours of staff data-entry time). A coordinated, technology-based response would have allowed the assessment to occur in a much more efficient way. Most importantly, a technology-based solution allows for the fast transmittal of structural or flood damage assessment to our regional power company LIPA (soon to be PSE&G). During Hurricane Sandy, using a paper-based information system, LIPA had no knowledge of which properties were properly inspected and/or had their electrical systems certified for re-energizing. The GIS center, replicated during Super Storm Sandy, has now been dismantled. Town is currently serving GIS infrastructure from existing data center.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no action and rely on paper based forms. This is time consuming and will result in a delay in transmitting data to utility companies, thereby delaying the restoration of power to residences and commercial buildings. Additionally, this data was used to report damage to State and Federal Emergency Management Agencies.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The availability of up to 35 hand-held tablets or laptop computers, with 3G/4G connectivity, along with a distributed web interface, eliminates the need for hundreds of labor-hours dedicated to filling out paper-based forms and the conversion of that information to a GIS database. Further, the

	availability of a reliable GIS Server, located on the upper floors of our Town Hall West facility (within the same building as our Incident Command Center), is absolutely critical. Fundamentally, this modest capital investment ensures the continuity of government during a storm other crisis and is key to maintaining public health and welfare. GIS Server – Dell – $10,225.00 ; 35 Panasonic Toughpad @$1,548 each – Total $54,180.00; outside professional contract for server installation, configuration, and management - $30,000
Mitigation Action/Project Type	Natural Systems Protection
Objectives Met	3, 12, 13, 14
Applies to existing structures/infrastructure, future, or not applicable	Not Applicable
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$94,405
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 400
Mitigation Action/Initiative: Town of Islip - GIS Mapping

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	0	
Fiscal	0	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	10	
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: Town of Islip
Number: Sandy HMGP LOI #: 440
Mitigation Action/Initiative: Town of Islip – Hardening 401 Main - Emergency Operations Center

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	Emergency Operations Center, 401 Main Street, Islip, NY Many critical components of the Town of Islip's government operations are located in 401 Main Street, Islip including the Emergency Operations Center. The Town of Islip's Emergency Operations Center is currently located at 401 Main Street, Islip is located in a flood zone about one mile north of our coastal waterway and is highly vulnerable to experience flooding in the event of a Category 2 hurricane or greater. Access to and egress from the facility during a strong hurricane poses a critical threat not only to the continuity of operations for the Town but to the safety of all personnel reporting to the EOC during a major storm. The Town's current EOC is located in an approximately 600 sq ft room where all Town and outside agency personnel report to during activation. There is a small 12' x 6' room used as a conference room. The building has no backup generator to support it during a loss of power nor are there any IT assets or fiber network in the building. Radio communications personnel use a small 4' x 12' space at the rear of the EOC. Personnel answering incoming and outgoing calls from our residents are also stacked up at the rear of the room with very little work space and noise coming from the EOC. In addition, there are no redundant air conditioning/ventilation/heating systems in the building.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Move the EOC to the Long Island MacArthur Airport. Subject of an additional mitigation project.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	It is critical that the Town Emergency Operations Center remain functioning throughout a storm or other disaster. As such, the Town of Islip intends to employ the following measures to harden, advance and expand the existing EOC to create a more robust center designed to further protect Islip Town and its residents by enabling and enhancing the Town's ability to prepare, meet and mitigate the effects of a man-made or natural disaster: • Expand the Towns Emergency Operations function to include a separate call center, whereupon employees can gather information from residents and communicate real time data to the Emergency Management Staff; • Increase the Information Technology function in the current Emergency Operations Center to include fiber network support and communications support;

	• Increase information gathering capability with cameras systems and GIS mapping components; • Install a back up power supply generator to enable continuous functionality.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$350,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 440
Mitigation Action/Initiative: Town of Islip – Hardening 401 Main - Emergency Operations Center

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	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	11	
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: Town of Islip
Number: Sandy HMGP LOI #: 661
Mitigation Action/Initiative: DPW - Hardening of Town Hall West - 401 Main Street - Islip, NY

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	During Hurricane Irene and Super Storm Sandy, Town of Islip facilities and office buildings were used as information gathering and distribution centers, disaster recovery centers and communication outlets. Town Hall West, located at 401 Main Street is the Town's fusion center, which housed the Red Cross, Suffolk County Health Department, Small Business Administration, FEMA's disaster recovery center, and NYS Department of Financial Services. The Town held (and continues to hold) informational meetings with residents and businesses alike. Additionally, several of the Town's government functions and departments such as Emergency Management Operations and Call Centers, Public Safety, Public Works, Environmental Conservation, Comptroller's Office, Senior Citizen Services, Planning and GIS Mapping are co-located to the 401 Main Street facility.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no action.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	To ensure the Town can provide continued government services and a robust emergency response, the Town intends to harden and improve its 401 facility by employing measures that would reinforce necessary staging for a disaster recovery center, communication and public gathering centers, personnel and shelter staging areas. Additionally, by hardening this structure, it would be rendered operational during and immediately following a hurricane or super storm. The proposed mitigation measures to Town Hall West are as follows: • Gymnasium and shower facility to be utilized as a Town essential personnel refuge facility and comfort station. Mitigation to this area will include electrical, plumbing and carpentry to the main gym area and restroom/shower facilities. Approximate Cost: $1,250,000 • Auditorium to create a disaster recovery and public information center. This area could be used by FEMA, the NYS Emergency Management, LIPA, Suffolk County Emergency Management, Small Business Administration, American Red Cross, etc. These agencies requested and were granted work space during Hurricane Irene and Super Storm Sandy in Town Hall West. Proposed mitigation to this area will include electrical, plumbing and carpentry and data access. Approximate cost: $1,250,000.

	Total Estimated Cost: $2,500,000.00
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 12, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$2,500,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 661
Mitigation Action/Initiative: DPW - Hardening of Town Hall West - 401 Main Street - Islip, NY

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	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
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: Town of Islip
Number: Sandy HMGP LOI #: 694
Mitigation Action/Initiative: Town of Islip – DPW – Hardening of Facilities and Additional Shelters

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	Many Town of Islip facilities and office buildings are critical to maintaining government operations. These buildings require mitigation measures in order to allow them to be functional during a storm or other emergency. Several of these facilities are located in low lying coastal areas that are prone to flooding and wind damage. This poses difficulty in staging resources for a rapid response to emergencies. I.e. evacuation, roadway clearance, assisting utility companies, etc. Additionally, some facilities that are maintained by the Town could be used as temporary emergency shelters for residents who need to evacuate their homes. These facilities require upgrades to allow them to withstand high winds and other forces of nature.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no action
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Ensure our Town can provide continued government services to our residents and employees by protecting them and giving them a safe and secure place to wait out the storm and provide shelter when needed. The Town intends to harden its facilities by employing measures that would reduce flooding potential and protect from heavy winds. The Town will reinforce the facilities so they could be used for emergency shelter and personnel staging areas. Additionally, by hardening these structures, they can be rendered operational immediately following the storm. The Town proposes the following measures: • Install flood doors at Islip Town Hall located at 655 Main Street, Islip. This is the Town's epicenter of government operations. ($35,000) • Implement wind, rain, flood and other weather prevention measures including replacing doors, windows, strengthen roof, etc. at: o Bay Shore Highway Yard – 245 Second Ave, Bay Shore - $50,000 o Sayville Highway Yard – 1200 Lincoln Ave, Holbrook - $50,000 o Central Islip Highway Yard – 299 Carleton Ave, Central Islip - $50,000 These locations are instrumental in coordinating operations inasmuch as road clearing (debris, snow), emergency response, vehicle repair, etc. These yards are also fueling stations for Town vehicles and emergency

	vehicles (fire departments, EMS, school districts) throughout the Town of Islip. • Replace windows, upgrade electric, implore flood mitigation measures and make plumbing upgrades to prepare for future storms and emergencies at the following locations which will be used for resident Shelters in the event of an emergency: o Ronkonkoma Pavillion-299 Rosevale Ave., Ronkonkoma ($100,000) o West Islip Senior Ctr – 90 Higbie Lane, West Islip ($100,000) o Islip Senior Ctr – 555 Clayton St, Central Islip ($100,000) o These locations will also include secured areas to facilitate the storage of emergency supplies. Furnish and install two (2) 10,000 gallon tanks at the Long Island MacArthur Airport for essential emergency and Town vehicles and generator refueling - $350,000
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 10, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: $400,000
Estimated Cost	$835,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 694

Mitigation Action/Initiative: Town of Islip – DPW – Hardening of Facilities and Additional Shelters

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	0	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
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: Town of Islip
Number: Sandy HMGP LOI #: 1248
Mitigation Action/Initiative: Town of Islip - Atlantique Marina Bulkhead and Decking

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding, Coastal Erosion
Specific problem being mitigated:	The docks and facilities located at the Atlantique Marina received significant damage from Super Storm Sandy. Initial repairs to the facility allowed for some hardening of the marina; however further measures are necessary to protect its docks and facilities from devastation upon another super storm or hurricane. Damaged portions of the marina were replaced with vinyl bulkhead, IPE decking and hurricane fasteners and electrical components were raised to avoid damage from flooding. The upgrade and expansion of this marina to accept ferries to evacuate residents and receive supplies would enhance the ability to response to and recover from an emergency event.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no Action
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	To further reduce damage brought about by another super storm or hurricane and to facilitate evacuation during a weather event and an efficient response/recovery, the Town proposes the following mitigation measures be employed at the Atlantique Marina. • Upgrade and expand the dock to allow for improved resident evacuation, delivery of emergency supplies and equipment; freight service. • Raise remaining portions of the Marina decking system and replace decking with IPE wood and hurricane fasteners;
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 3, 7, 10, 12, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: $1,977,000
Estimated Cost	$2,500,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety

Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 1248
Mitigation Action/Initiative: Town of Islip - Atlantique Marina Bulkhead and Decking

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	0	
Political	1	
Legal	0	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	0	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	6	
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: Town of Islip
Number: Sandy HMGP LOI #: 1253
Mitigation Action/Initiative: Town of Islip - Atlantique Marina – Centralized Facility Improvement

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	Atlantique Marina is a popular destination for both residents and tourists,. A tropical storm, hurricane or other severe weather event poses severe threats to residents, visitors, town employees, and to the immediate surrounding communities of Atlantique. There are no centrally located shelters or emergency operations facilities at or near Atlantique Marina, or on Fire Island.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Take no action and leave residents, visitors and town employees without an emergency shelter. Emergency response would have to be coordinated from various community fire houses located east and west of Atlantique.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	For the purpose of public safety and emergencies, the Town proposes to raise the existing structures at Atlantique and consolidate functionality to allow for a satellite Emergency Operations Center and shelter for residents. These raised structures would house substations for the Suffolk County Police Department, Fire Island Lifeguard Protection district, and Marina personnel. In addition to Atlantique residents and visitors, this new facility would allow for integrated emergency response including full data and voice communication capabilities to maintain coordination between agencies. During the post-Sandy clean-up, an EOC at Atlantique would have served as a valuable centralized distribution position. Furthermore, a shelter for residents and beachgoers would be valuable. With flash thunderstorms becoming more of an issue, there is little time to find appropriate shelter at Fire Island. A centrally located shelter would employ critical safety measures and provide a coordination center for emergency
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 7, 9, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Future structure

Benefits (losses avoided)	Recent Damages: $1,977,000
Estimated Cost	$3,000,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 1253

Mitigation Action/Initiative: Town of Islip - Atlantique Marina – Centralized Facility Improvement

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	0	
Technical	0	
Political	1	
Legal	0	
Fiscal	-1	
Environmental	0	
Social	1	
Administrative	0	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	6	
Priority (High/Med/Low)	Med	

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 Islip
Number: Sandy HMGP LOI #: 1406
Mitigation Action/Initiative: Town of Islip - DPW - Road Raising and Flood Mitigation – Phase I

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	Due to the combination of the low elevation and a high groundwater table, tidal cycles in combination with rainfall events cause periodic flooding onto the roadway and homes of the Islip low lying coastal community. The presence of leaching basins and perforated pipe in the existing drainage system allows groundwater which is influenced by tides to enter the drainage system. The reduction in storm water storage increases the magnitude and duration of roadway flooding. Several millions of dollars in damage has been realized to residential properties in the areas identified below. Furthermore, the Town has experienced approximately $450,000 in road repairs and de-watering operations in the subject areas. The Town of Islip has 375 miles of road in the flood plain that need to be elevated 4 feet over the next 80 years at an approximate cost of $1 billion in order to allow for emergency responder access and egress and to ensure continuity of government services. The first phase described in the mitigation measure below would raise a small portion of the targeted area 1 foot.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No alternative would leave the road at risk of flooding. 2. Raising roads four feet above the current surface is not practical at this time. To implement the raising of the road surface at a level of 1 foot is a cost effective alternative. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Town of Islip's proposal includes a closed drainage system and elevation changes to the roadway which will allow residents and emergency and fire equipment access. Without employing these measures, the identified locations below will continue to require frequent flood mitigation, including pumping by the Town during rainfall events. The roadway condition will continue to deteriorate due to standing water and regular flooding. The locations identified below include a mitigation proposal to raise the road 1 foot Middlesex Ave, Oakdale (2,631 ft) $789,000 (Potential CRZ Candidate) Shore Drive, Oakdale (5,008 ft) $1,502,400 Eaton Lane, West Islip (1,915 ft) $574,500 South Court, Bay Shore (1,230 ft) $369,000 Browns River Rd II, Bayport (2,300ft) $690,000

	Browns River Road, Sayville (995ft) $298,500 Terry Street, Sayville (1,250ft) $375,000 Bayview Ave, East Islip (2,800 ft) $840,000 South Bay Avenue, Islip (5,500 ft) $1,650,000 Sequams Center, East & West, West Islip (6,000 ft) $1,800,000 (Potential CRZ Candidate)
Mitigation Action/Project Type	Structure and Infrastructure Protect
Objectives Met	2, 9, 12, 13, 14, 15, 16, 17
Applies to existing structures/infrastructure, future, or not applicable	Existing Structures (roads)
Benefits (losses avoided)	Recent Damages: $450,000
Estimated Cost	$9,698,400
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Medium
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 HMGP LOI #: 1406
Mitigation Action/Initiative: Town of Islip - DPW - Road Raising and Flood Mitigation – Phase I

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	1	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	13	
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: Town of Islip
Number: Sandy HMGP LOI #: 1513
Mitigation Action/Initiative: Long Island McArthur Airport Back-Up Generators

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake
Specific problem being mitigated:	MAINTENANCE AND SNOW FACILITY, LI MACARTHUR AIRPORT, CLARK DRIVE, RONKONKOMA, NY 11779 10,000Sf vehicle and equipment maintenance and storage facility. 3000 sf snow building. The existing backup generator permanently failed during SS Sandy. This unit was donated to the airport in 1964, and was used when donated. During SS Sandy the airport fuel pumps were not operational for three days due to the power outage. Additionally, all vehicle and equipment repairs were suspended during this power outage. AIRPORT CONFERENCE ROOM, MAIN TERMINAL BUILDING, LI MACARTHUR AIRPORT,100 ARRIVAL AVENUE, RONKONKOMA, NY 11779 Due to the location and elevation (99' ASL), this room has been identified as a backup EOC should 401 Main St become flooded, or otherwise unavailable. The conference room is not supported by the sole 25Kw backup generator in the main terminal building. The existing conference room is approximately 700 SF (28'x25') The room is equipped with (1) Intelliboard, (1) Wide-screen TV, There are 10 data lines feeding the room, and 5 pots lines. ARFF (Airport Rescue and Fire Fighting) , LI MACARTHUR AIRPORT, CLARK DRIVE, RONKONKOMA, NY 11779 The ARFF facility is over 50 years old. The existing 80Kw backup generator was donated to the airport over 25 years ago. When donated, the unit had been used for ten years at another location. Should the backup generator fail during a power outage, the ARFF will not be able to use equipment necessary to operate their equip, e.g. compressors, overhead doors, lighting etc. During a failure the bay doors will need to remain open to allow prompt egress for FF equip, creating a hazardous condition within the ARFF, particularly from wind, water or snow. A loss of backup power will also impact the HVAC system. The ARFF is the base for all airport communications. Loss of backup power will result in the disruption of all airport communications, including radios and telephone. There is one pots line from ARFF to the LE office. Fire Fighting equip is routinely plugged into the building electrical system to insure all vehicle batteries are fully charged at all times. A power disruption may result in an airport closure should vehicles not be fully charged.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tree Trimming-remove tree branches that may fall onto power lines causing power outages. This is currently being done as existing town maintenance, to protect feeder lines, but doesn't help with primary or secondary lines off Town

	property.
	2. Bury Power Lines. This option is not being pursued as it is cost prohibitive due to the long run and the Town does not have the legal authority to bury the lines.
	3. Urge Special Treatment from Power Company-Meet with the executive team and urge them to take steps necessary to prevent power failures to Town Hall • This is not the best alternative because it relies on others to address the problem. The solution remains outside the control of the Town. • Though we do get priority, the system is complex and does not provide a direct connection to a sub-station. (Another alternative could be to install a secondary electrical feed from an independent section of the local grid – this is typically technically infeasible and cost-prohibitive.)
Action/Project Intended for Implementation	
Description of Selected Action/Project	MAINTENANCE AND SNOW FACILITY, LI MACARTHUR AIRPORT, CLARK DRIVE, RONKONKOMA, NY 11779 The Airport owns a 200 Kw generator that was donated by the FAA in 1999 that has never been used. This unit can be serviced and installed to support both the Maintenance and Snow Building.Cost: $125,000. Annual Maintenance is approximately $2000. AIRPORT CONFERENCE ROOM, MAIN TERMINAL BUILDING, LI MACARTHUR AIRPORT,100 ARRIVAL AVENUE, RONKONKOMA, NY 11779 Install a 250 Kw backup generator to power the conference room during power interruptions. The generator will also support adjacent space not currently powered by the existing generator. Install additional data/voice lines in increments of 8. Cost: $250,000 for back-up generator, including installation. Annual maintenance: $2000. Additional voice/data blocks $1000 ea. for 8 ports. ARFF (Airport Rescue and Fire Fighting) , LI MACARTHUR AIRPORT, CLARK DRIVE, RONKONKOMA, NY 11779 Purchase and install an 80Kw backup generator. Est. cost: $175,000. Annual maintenance: $2000.00
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 3, 7, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$558,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety

Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	8-18 months (after funds are approved)
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 HMGP LOI #: 1513
Mitigation Action/Initiative: Long Island McArthur Airport Back-Up Generators

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will allow this critical facility to remain operational during power outages.
Property Protection	0	This project will have no significant effect on reducing damage to the Village Hall structure.
Cost-Effectiveness	1	This project is considered highly cost-effective
Technical	1	There are no technical issues associated with the project, and with routine maintenance will provide long term protection against power interruptions.
Political	1	This project is supported both publically and politically.
Legal	1	The municipality has full legal authority to implement this project.
Fiscal	0	The town can currently fund the local match if a grant were awarded.
Environmental	1	There are no environmental constraints associated with this project.
Social	1	This project benefits all sectors of the community equally.
Administrative	1	The Town has all administrative and technical resources necessary to implement this project
Multi-Hazard	1	This project provides protection against multiple hazards.
Timeline	1	The project can be implemented within one year once funding is secured.
Agency Champion	1	The Town Supervisor and Emergency Management Coordinator are the leads for this critical project.
Other Community Objectives	1	This project supports the Town's commitment to provide uninterrupted critical services to their residents, particularly in times of natural disasters and other emergencies.
Total	12	
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: Town of Islip
Number: Sandy HMGP LOI #: 1576
Mitigation Action/Initiative: MacArthur Compost Generator

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake
Specific problem being mitigated:	MacArthur Composting, 1101 Railroad Avenue, Ronkonkoma, NY The Compost facility is the primary site used to accept and process vegetative debris which is typically generated by the storm event. Uninterrupted power is necessary to accurately measure and quantify materials delivered, as required by FEMA rules and regulations and safely operate the site – up to 18 hours per day – seven days a week. The lack of stable, reliable power can severely limit our ability to safely and continuously operate. Storm events usually occur during reduced daylight periods and therefore facility safety may be compromised without adequate site lighting. When equipment goes down, we need to be able to repair it immediately – on site. This may require a combination of lighting, compressors, welding equipment, lifts/hoists and other power tools within the maintenance shop.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tree Trimming-remove tree branches that may fall onto power lines causing power outages. This is currently being done as existing town maintenance, to protect feeder lines, but doesn't help with primary or secondary lines off Town property.
	2. Bury Power Lines. This option is not being pursued as it is cost prohibitive due to the long run and the Town does not have the legal authority to bury the lines.
	3. Urge Special Treatment from Power Company-Meet with the executive team and urge them to take steps necessary to prevent power failures to Town Hall • This is not the best alternative because it relies on others to address the problem. The solution remains outside the control of the Town. • Though we do get priority, the system is complex and does not provide a direct connection to a sub-station. (Another alternative could be to install a secondary electrical feed from an independent section of the local grid – this is typically technically infeasible and cost-prohibitive.)
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase & installation of 3 natural gas generators for the scale house, office and maintenance shop. In order to facilitate acceptance and processing of storm debris, supplemental lighting at these facilities is also necessary. A safe, well lit site extends the period of debris processing. These generators are also necessary for the onsite repair and maintenance of processing equipment at each site (both routine maintenance as well as repairs).

	Estimated Project Cost: $170,000 for natural gas generators; $50,000 for bringing natural gas to the generator sites
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 3, 7, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$220,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	8-18 months (after funds are approved)
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 HMGP LOI #: 1576
Mitigation Action/Initiative: MacArthur Compost Generator

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will allow this critical facility to remain operational during power outages.
Property Protection	0	This project will have no significant effect on reducing damage to the Village Hall structure.
Cost-Effectiveness	1	This project is considered highly cost-effective
Technical	1	There are no technical issues associated with the project, and with routine maintenance will provide long term protection against power interruptions.
Political	1	This project is supported both publically and politically.
Legal	1	The municipality has full legal authority to implement this project.
Fiscal	0	The town can currently fund the local match if a grant were awarded.
Environmental	1	There are no environmental constraints associated with this project.
Social	1	This project benefits all sectors of the community equally.
Administrative	1	The Town has all administrative and technical resources necessary to implement this project
Multi-Hazard	1	This project provides protection against multiple hazards.
Timeline	1	The project can be implemented within one year once funding is secured.
Agency Champion	1	The Town Supervisor and Emergency Management Coordinator are the leads for this critical project.
Other Community Objectives	1	This project supports the Town's commitment to provide uninterrupted critical services to their residents, particularly in times of natural disasters and other emergencies.
Total	12	
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: Town of Islip
Number: Sandy HMGP LOI #: 1578
Mitigation Action/Initiative: Hauppauge Landfill Generators

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake
Specific problem being mitigated:	Hauppauge Landfill, 440 Blydenburgh Road, Hauppauge, NY The Town operates an active clean fill landfill and closed MSW Superfund site. This site has many systems in place to protect the health and welfare of the surrounding residents. These include gas and leachate collection systems which need electrical power to operate to prevent off site migration and contamination into the regions aquifer which is the source of drinking water for Long Island's residents.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tree Trimming-remove tree branches that may fall onto power lines causing power outages. This is currently being done as existing town maintenance, to protect feeder lines, but doesn't help with primary or secondary lines off Town property.
	2. Bury Power Lines. This option is not being pursued as it is cost prohibitive due to the long run and the Town does not have the legal authority to bury the lines.
	3. Urge Special Treatment from Power Company-Meet with the executive team and urge them to take steps necessary to prevent power failures to Town Hall • This is not the best alternative because it relies on others to address the problem. The solution remains outside the control of the Town. • Though we do get priority, the system is complex and does not provide a direct connection to a sub-station. (Another alternative could be to install a secondary electrical feed from an independent section of the local grid – this is typically technically infeasible and cost-prohibitive.)
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase & installation of 3 natural gas generators for the scale house, office and maintenance shop. Two additional generators for the gas collection and leachate collection systems would be needed. In order to facilitate acceptance and processing of storm construction and demolition debris, site lighting at these facilities needs to be operable. These generators are also necessary for the onsite repair and maintenance of processing equipment at each site (both routine maintenance as well as repairs). Estimated Project Cost: $310,000 for natural gas generators; $100,000 for bringing natural gas to the generator sites

Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 3, 7, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$410,000
Priority*	
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	8-18 months (after funds are approved)
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 HMGP LOI #: 1578
Mitigation Action/Initiative: Hauppauge Landfill Generators

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will allow this critical facility to remain operational during power outages.
Property Protection	0	This project will have no significant effect on reducing damage to the Village Hall structure.
Cost-Effectiveness	1	This project is considered highly cost-effective
Technical	1	There are no technical issues associated with the project, and with routine maintenance will provide long term protection against power interruptions.
Political	1	This project is supported both publically and politically.
Legal	1	The municipality has full legal authority to implement this project.
Fiscal	0	The town can currently fund the local match if a grant were awarded.
Environmental	1	There are no environmental constraints associated with this project.
Social	1	This project benefits all sectors of the community equally.
Administrative	1	The Town has all administrative and technical resources necessary to implement this project
Multi-Hazard	1	This project provides protection against multiple hazards.
Timeline	1	The project can be implemented within one year once funding is secured.
Agency Champion	1	The Town Supervisor and Emergency Management Coordinator are the leads for this critical project.
Other Community Objectives	1	This project supports the Town's commitment to provide uninterrupted critical services to their residents, particularly in times of natural disasters and other emergencies.
Total	12	
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: Town of Islip
Number: Sandy HMGP LOI #: 1931
Mitigation Action/Initiative: Town of Islip – DPW - Generators

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake
Specific problem being mitigated:	Town of Islip facilities, yards and mechanic shops were without power during Super Storm Sandy; thereby preventing the Town from being continually operational and providing uninterrupted essential services to its residents. Many of the town facilities are without generators and/or emergency power capabilities.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tree Trimming-remove tree branches that may fall onto power lines causing power outages. This is currently being done as existing town maintenance, to protect feeder lines, but doesn't help with primary or secondary lines off Town property.
	2. Bury Power Lines. This option is not being pursued as it is cost prohibitive due to the long run and the Town does not have the legal authority to bury the lines.
	3. Urge Special Treatment from Power Company-Meet with the executive team and urge them to take steps necessary to prevent power failures to Town Hall • This is not the best alternative because it relies on others to address the problem. The solution remains outside the control of the Town. • Though we do get priority, the system is complex and does not provide a direct connection to a sub-station. (Another alternative could be to install a secondary electrical feed from an independent section of the local grid – this is typically technically infeasible and cost-prohibitive.)
Action/Project Intended for Implementation	
Description of Selected Action/Project	Ensure the Town of Islip is capable of providing continued government services to residents by reducing the risk and loss of transportation, communications, or energy in its infrastructure and provide shelter when needed. During Super Storm Sandy, an absence of available power resulted in loss of essential services. Generators would ensure fuel capabilities, long-term government function, and emergency response. The Town proposes that generators are purchased and installed as follows: Quant. – Location – Cost 1 – Town Hall West - 401 Main St. Islip (for IT) – $200,000 1 – Islip Town Hall – 655 Main St. Islip (for building) – $200,000 1 – Sayville Fueling Station-1200 Lincoln Ave, Holbrook – $5,000

	1	Bay Shore Fueling Station – 245 Second Ave, Bay Shore	$5,000
	1	Central Islip Fueling Station – 299 Carleton Ave., Central Islip	$5,000
	1	Bay Shore Mechanic Shop – 245 Second Ave, Bay Shore	$20,000
	1	Sayville Highway Yard – 1200 Lincoln Ave, Holbrook	$20,000
	1	Central Islip Highway Yard – 299 Carleton Ave, Central Islip	$20,000
	1	Ronkonkoma Pavillion-299 Rosevale Ave., Ronkonkoma	$25,000
	1	West Islip Senior Ctr – 90 Higbie Lane, West Islip	$50,000
	1	Central Islip Senior Ctr – 555 Clayton St., Central Islip	$50,000
	3	Century 500 Utility Station (@ $ 50,000 each)	$150,000
	1	Carriage House 50 Irish Lane, East Islip	$50,000
Mitigation Action/Project Type	Structure and Infrastructure Project		
Objectives Met	2, 3, 13, 14, 15, 16		
Applies to existing structures/infrastructure, future, or not applicable	Existing		
Benefits (losses avoided)	Recent Damages: $0		
Estimated Cost	$800,000		
Priority*	High		
Plan for Implementation			
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety		
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.		
Potential Funding Sources	FEMA HMPG, Town budget for local match		
Timeline for Completion	8-18 months (after funds are approved)		
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 HMGP LOI #: 1931
Mitigation Action/Initiative: Town of Islip – DPW - Generators

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will allow this critical facility to remain operational during power outages.
Property Protection	0	This project will have no significant effect on reducing damage to the Village Hall structure.
Cost-Effectiveness	1	This project is considered highly cost-effective
Technical	1	There are no technical issues associated with the project, and with routine maintenance will provide long term protection against power interruptions.
Political	1	This project is supported both publically and politically.
Legal	1	The municipality has full legal authority to implement this project.
Fiscal	0	The town can currently fund the local match if a grant were awarded.
Environmental	1	There are no environmental constraints associated with this project.
Social	1	This project benefits all sectors of the community equally.
Administrative	1	The Town has all administrative and technical resources necessary to implement this project
Multi-Hazard	1	This project provides protection against multiple hazards.
Timeline	1	The project can be implemented within one year once funding is secured.
Agency Champion	1	The Town Supervisor and Emergency Management Coordinator are the leads for this critical project.
Other Community Objectives	1	This project supports the Town's commitment to provide uninterrupted critical services to their residents, particularly in times of natural disasters and other emergencies.
Total	12	
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: Town of Islip
Number: TOI-9
Mitigation Action/Initiative: Storage for gas and diesel

Assessing the Risk	
Hazard(s) addressed:	Widespread Power Outages
Specific problem being mitigated:	A fuel shortage would not only affect Town vehicles and generators, but would hinder the ability for Fire Services and Community Ambulances to function as well, thereby placing the safety of the public at risk. It should be noted that during the immediate aftermath of Super Storm Sandy, residential homes and commercial buildings (including gas stations) were without power for nearly 10 days. Additionally, New York ports were closed to incoming vessels carrying fuel and many local gas stations were non operational for more than one week.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Stage multiple fuel trucks before every major storm. This costly measure would divert resources from their normal operations of supplying fuel to gas stations.
	2. Rely on periodic deliveries to small pumping depots located throughout the town. If the suppliers run out of fuel, the Town is left with what is remaining in the holding tanks at the pumping depots.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Add storage (temporary and mobile) for gas and diesel in the Long Island MacArthur Airport maintenance yard for use by other town departments, and/or designated organizations (e.g. fire service, community ambulances)
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	12, 13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing facility (Long Island MacArthur Airport) Future project
Benefits (losses avoided)	Recent Damages: During Super Storm Sandy, a large portion of the Town was without power for up to 10 days. Fuel deliveries were sparse to this region and Town vehicles and emergency vehicles (Fire services and Ambulance services) needed to remain operational and rely on the Town to supply their vehicles with fuel.
Estimated Cost	
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town of Islip: Long Island MacArthur Airport

Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	18 months (after funds are approved)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: TOI-9
Mitigation Action/Initiative: Storage for gas and diesel

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This project will provide a fuel supply for the Town's fleet, as well as fire service and ambulance services in the event of a fuel shortage.
Property Protection	1	Town vehicles are used for debris removal and flood pumping
Cost-Effectiveness	1	The Town can purchase and store fuel in bulk rather than stage multiple fuel deliveries during an emergency.
Technical	0	
Political	0	
Legal	0	
Fiscal	0	
Environmental	-1	There is an environmental review component to this project.
Social	1	
Administrative	1	
Multi-Hazard	1	
Timeline	-1	Permitting process will
Agency Champion	0	
Other Community Objectives	0	
Total	4	
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: Town of Islip
Number: TOI-22
Mitigation Action/Initiative: Retrofit tax receiver's office

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Flooding
Specific problem being mitigated:	This office is one of the primary customer service locations for the Town of Islip. It is the location whereupon taxes are collected and administrative duties are performed. This office houses several paper and electronic documents. A flood would decimate the Town's tax records.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Move this office to another location away from Town Hall.
	2. Take no action.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Retrofit the Tax Receiver's Office located at 40 Nassau Avenue with a second story addition. This facility would need a freight elevator or lift system in order to move items to the second floor and for handicap accessibility. The building would benefit from the addition of structural security to hurricane proof the building and windows.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: 0
Estimated Cost	
Priority*	Low to Medium
Plan for Implementation	
Responsible Organization	Town of Islip
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Medium
Reporting on Progress	

Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: TOI-22
Mitigation Action/Initiative: Retrofit tax receiver's office

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Preserve tax records.
Cost-Effectiveness	0	
Technical	0	
Political	0	
Legal	1	
Fiscal	1	
Environmental	0	
Social	0	
Administrative	1	This is a key customer service location for Town residents.
Multi-Hazard	0	
Timeline	0	
Agency Champion	0	
Other Community Objectives	1	
Total	5	
Priority (High/Med/Low)		

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 Islip
Number: NY Rising Oakdale-West Sayville 3
Mitigation Action/Initiative: Identify low-lying roads

Assessing the Risk	
Hazard(s) addressed:	Coastal Erosion, Flood, Hurricane, Nor'Easter, Severe Storm
Specific problem being mitigated:	Identify roads that are low lying and fund construction of the roads that are deemed as the highest priority to mitigate from flooding. The goal is to identify roads that are candidates for raising in order to provide egress during an evacuation and access to emergency vehicles.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. This project has been identified by the NY Rising Community Reconstruction Program – Oakdale/West Sayville Committee.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify roads that are low lying and fund construction of the roads that are deemed as the highest priority to mitigate from flooding.
Mitigation Action/Project Type	Infrastructure Project
Objectives Met	2, 5, 9, 11, 12, 13, 14, 15, 16, 17
Applies to existing structures/infrastructure, future, or not applicable	Existing
Benefits (losses avoided)	Recent Damages:
Estimated Cost	$1,760,000
Priority*	
Plan for Implementation	
Responsible Organization	NY Rising Community Reconstruction Program
Local Planning Mechanism	Town of Islip
Potential Funding Sources	CDBG DR; HMGP; NY Rising
Timeline for Completion	12-24 months (after funds are approved)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Islip NY Rising Oakdale-West Sayville 3
Mitigation Action/Initiative: Identify low-lying roads

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

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 Islip
Number: Sandy HMGP LOI #: 179
Mitigation Action/Initiative: Town of Islip - DEC - Portable and Vehicle Based Radios

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Loss of Power
Specific problem being mitigated:	DEC Administrative Offices, 401 Main Street, #302, Islip, NY MacArthur Composting, 1101 Railroad Avenue, Ronkonkoma, NY Hauppauge Landfill, 440 Blydenburgh Road, Hauppauge, NY WRAP Center, 1155 Lincoln Avenue, Holbrook, NY Collection Unit, 1165 Lincoln Avenue, Holbrook, NY Animal Shelter, 210 South Denver Avenue, Bay Shore, NY The sites have limited on-site communications, with the exception of the Animal Shelter, which has Town frequency radios. Administration currently does not have any digital radios (hand held, vehicle based or base stations) for interoperable communication. If landline and cell phones are non-operable, the use of digital interoprable radios would continue the operations of these facilities.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No alternative selected because communication among resources are critical during times of emergency.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Purchase and install digital interoperable radios at all sites for all DEC site supervisors, foremen, inspectors, collection drivers and administrative personnel. These radios are needed to facilitate interoperable communication, between various departments, emergency agencies, management and the EOC.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	12, 13, 14, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structures
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$75,000
Priority*	High
Plan for Implementation	

Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 179
Mitigation Action/Initiative: Town of Islip - DEC - Portable and Vehicle Based Radios

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	0	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	Med	

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 Islip
Number: Sandy HMGP LOI #: 180
Mitigation Action/Initiative: Town of Islip - DEC - Microwave Communications Equipment

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Loss of Power
Specific problem being mitigated:	DEC Administrative Offices, 401 Main Street, #302, Islip, NY MacArthur Composting, 1101 Railroad Avenue, Ronkonkoma, NY Hauppauge Landfill, 440 Blydenburgh Road, Hauppauge, NY WRAP Center, 1155 Lincoln Avenue, Holbrook, NY Collection Unit, 1165 Lincoln Avenue, Holbrook, NY Immediately following severe weather events, these sites continue to experience serious interruptions in voice, video and data communication abilities due to downed cables and broken fiber links.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No alternative selected because communication among resources are critical during times of emergency.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	In order to harden our infrastructure, we propose installing microwave links to our four major sites which have responsibility for collection, receiving and processing of vegetative as well as solid and hazardous storm debris. Communications with these sites is crucial in order to properly and accurately manage the flow of storm related debris into our sites. This allows for accurate collection and real time data acquisition – which is needed on a daily basis for internal as well as external emergency management (Suffolk County, NYS and FEMA).
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	7, 12, 13, 14, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structures
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$50,000
Priority*	High
Plan for Implementation	

Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 180
Mitigation Action/Initiative: Town of Islip - DEC - Microwave Communications Equipment

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	0	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
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: Town of Islip
Number: Sandy HMGP LOI #: 219
Mitigation Action/Initiative: Town of Islip - Communications Functionality

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storms, Severe Winter Storm, Loss of Power
Specific problem being mitigated:	During Hurricane Sandy the Town of Islip experienced multiple communications outages due to fallen tree limbs though out the town. The Town's fiber network was damaged in multiple locations and prevented its remote sites from being able to communicate with its data network. During the storm our co-location facility lost their connection to the internet rendering our town website unreachable. The current phone system has limitations which prevented the Town from making changes to the system . Additionally, the Town of Islip Executive Corps utilizes computers and smart phones to maintain continuity of government operations. Portable radios are used by employees in the field to carry out their daily functions. In the event of a major storm, resulting in a loss of cell phone towers and power, communications will be disabled.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tree pruning is performed by the Town on town property. However, electric lines, phone lines and cable lines are serviced by various utility companies and the Town relies on these utilities to perform operations as well.
	2. No alternative selected because communication among resources are critical during times of emergency.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The Town of Islip intends to create a wireless backup infrastructure to prevent interruption of communications internally by building out a wireless infrastructure for the town's remote sites and installation of microwave antennas and wireless bridges at 25 of the Towns locations. The Town further intends to install redundant web services at a different collocation site that can be used if our primary site loses power/outside connection. The Town will replace current phone system with a modern IP based PBX's and handsets that can be maintained / configured by our staff so we can make changes as necessary and provide the flexibility to adapt to a rapidity changing environment. Additionally, the town will purchase satellite phones in order to ensure communication is maintained by the Town Supervisor and his emergency

	management staff.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	7, 12, 13, 14, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structures
Benefits (losses avoided)	Recent Damages: $0
Estimated Cost	$950,000
Priority*	High
Plan for Implementation	
Responsible Organization	Town of Islip: Anthony J. D'Amico, Deputy Commissioner of Public Safety
Local Planning Mechanism	Municipal Budget-Funds will be requested during the next budget cycle for matching funds for a FEMA grant.
Potential Funding Sources	FEMA HMPG, Town budget for local match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

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

Prioritization

Number: Sandy HMGP LOI #: 219
Mitigation Action/Initiative: Town of Islip - Communications Functionality

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	0	
Social	1	
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	9	
Priority (High/Med/Low)	High	