



9.1 Suffolk County

This section presents the jurisdictional annex for Suffolk County.

9.1.1 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
Thomas O’Hara, PDM Project Manager P.O. Box 127 Yaphank, NY 11980 Phone: (631) 852-4908 E-mail: thomas.ohara@suffolkcountyny.gov	Robert Sheron, PDM Planning Aide P.O. Box 127 Yaphank, NY 11980 Phone: (631) 852-4909 E-mail: Robert.Sheron@suffolkcountyny.gov

9.1.2 County Profile

Please refer to Section 4, Volume I of this Plan for details on Suffolk County’s population, location, climate, history, growth and development.

9.1.3 Natural Hazard Event History Specific to Suffolk County

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.

9.1.4 Natural Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for Suffolk County.

Table 9.1-1. 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)
4	Coastal Erosion	RCV in CEHA: \$4,897,697,416	Frequent	24
9	Drought	Damage estimate not available	Frequent	9
7	Earthquake	500-Year MRP: \$476,442,003 2,500-Year MRP: \$7,958,414,258	Rare	16
10	Expansive Soils	Damage estimate not available	Rare	6
6	Flood	1% Annual Chance: \$2,951,911,802 0.2% Annual Chance: \$4,852,228,055	Frequent	18
5	Groundwater Contamination (natural)	Damage estimate not available	Frequent	21
3	Hurricane	Category 1 SLOSH: \$11,826,347,426 Category 2 SLOSH: \$42,182,670,083 Category 3 SLOSH: \$76,860,233,276	Occasional	36



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)
		Category 4 SLOSH: \$105,464,671,427		
5	Infestation	No measurable impact to property	Frequent	21
1	Nor'Easter	100-Year RCV: \$6,450,731,550 500-Year RCV: \$47,400,260,141	Frequent	54
2	Severe Storm	100-Year RCV: \$6,450,731,550 500-Year RCV: \$47,400,260,141	Frequent	48
1	Severe Winter Storm	1% of GBS: \$4,309,333,611 5% of GBS: \$21,546,668,053	Frequent	54
5	Shallow Groundwater Flooding	Damage estimate not available	Frequent	21
8	Wildfire	Estimated RCV in Interface/Intermix: \$156,662,592,248	Occasional	12

- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on the custom inventory developed for Suffolk County and probabilistic modeling results and exposure analysis as discussed in Section 5.
- c. The earthquake and hurricane wind hazards were evaluated by Census tract. The Census tracts do not exactly align with municipal boundaries; therefore, a total is reported for each Town inclusive of the Villages and the Tribes within the Town boundary.
- d. Frequent = Hazard event that occurs more frequently than once in 10 years; Occasional = Hazard event that occurs from once in 10 years to once in 100 years, Rare = Hazard event that occurs from once in 100 years to once in 1,000 years; None = Hazard event that occurs less frequently than once in 1,000 years
- e. The estimated potential losses for Nor'Easter and Severe Storm are from the HAZUS-MH probabilistic hurricane wind model results. See footnote c.



9.1.5 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

Table 9.1-2. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Enforcement Authority	Code Citation and Comments (Code Chapter, date of adoption, name of plan, explanation of authority, etc.)
Building Code	Local	Regulated at local and state levels.
Zoning Ordinance	Local	Suffolk County Planning Committee (SCPC) has non-binding review power over municipal zoning/subdivision actions and proposed site plans that occur within jurisdictional boundaries of SCPC.
Subdivision Ordinance	Local	See above.
Site Plan Review Requirements	Local	See above.
Growth Management	Local	Suffolk County Planning Department prepared a plan that recommends the application of principles of Smart Growth to the municipalities within SC. A Review of Selected Growth & Development Areas, Suffolk County, NY; Suffolk County Open Space Acquisition Programs See August 06 Report
Floodplain Management/ Basin Plan	Local	Narrow Bay Floodplain & Hazard Mitigation Plan – Report issued. NFIP NYS Coordinator requires Floodplain Mgr at Town & Village level not at county level
Storm Water Management Plan / Ordinance	Local	Water Quality Protection & Restoration Program – pending referendum through 2030; Capital Budget; Funded through ¼ cent sales tax – ok to 2013
General Plan or Comprehensive Plan	County and Local	Long Island Regional Planning Board Bi-County Comprehensive Plan; Suffolk County Dept. of Fire Rescue & Emergency Services (SCFRES) All Hazard Comprehensive Emergency Management Plan (AHCEMP) dated 3/2005
Capital Improvements Plan	County	Multi-Year Capital Budget – updated annually
Habitat Conservation Plan	County and Local	Water Quality Protection & Restoration Program; Vector Control & Wetlands Management Long Term Plan (Dept. of Public Works)
Economic Development Plan	Local	Town Function
Emergency Response Plan	County and Local	Suffolk County Fire Rescue & Emergency Services All Hazard Comprehensive Emergency Management Plan dated 3/2005
Shoreline Management Plan	Federal, State, County and Local	Hurricane Damage Mitigation Plan; Proposed LI South Shore Hazard Management Program; related to SC properties including parks
Post Disaster Recovery Plan	County	Defined in Continuity of Operations Plan (COOP), dated 3/2005
Post Disaster Recovery Ordinance	Y	Robert T Stafford Act
Real Estate Disclosure req.	Local	Disclosure Requirement for Suffolk County owned property – Public Real Estate disclosure is NYS-mandated local requirement
General Comment		The Constitution of the State of New York is written in a fashion which provides local jurisdictions with home rule powers



Administrative and Technical Capability

Table 9.1-3. 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	Suffolk County Department of Economic Development and Planning (SCDEDP); SC Dept. Public Works (SCDPW); SC Dept. Health Services (SCDHS)
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Suffolk County Dept. Public Works; (engineers and architects)
Planners or engineers with an understanding of natural hazards	Y	Suffolk County Planning Dept.; SC Dept. Public Works
NFIP Floodplain Administrator	N	Per NYS Coordinator of NFIP Floodplain Mgr not applicable on County level as requirement and jurisdiction is with Towns and Villages
Surveyor(s)	Y	Suffolk County Dept. Public Works; SC Dept. of Energy & Environment, Div. of Real Estate
Personnel skilled or trained in “GIS” applications	Y	Suffolk County Information Technology, SC Planning Dept; SC Fire Rescue & Emergency Services; etc.
Scientist familiar with natural hazards in the municipality.	Y	Suffolk County Planning Dept.
Emergency Manager	Y	Suffolk County Fire Rescue & Emergency Services
Grant Writer(s)	Y	Multiple departments
Staff with expertise or training in benefit/cost analysis	Y	Multiple departments

Fiscal Capability

Table 9.1-4. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG)	Yes - used for infrastructure upgrades, such as storm water drainage improvements & bulkhead repairs
Capital Improvements Project Funding	Yes – Suffolk County Capital Program/Budget finances erosion & flood control projects, land acquisition for Open Space, acquisition of development rights to preserve agriculture uses
Authority to Levy Taxes for specific purposes	Yes - Suffolk County levies taxes for police districts, sewer districts, erosion control districts, etc.
User fees for water, sewer, gas or electric service	Yes - Suffolk County charges user fees for sewer service
Impact Fees for homebuyers or developers of new development/homes	No - Town or Village function as related to homebuyers or developers of new development/homes. SC has the ability on a limited basis related to County Roads.
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	Not aware of this at the County level – more at the Federal level – Coastal Barrier Resource Act (CBRA)
Mitigation grant programs	Yes – Through their various departments, the County leverages available grant programs to support mitigation efforts.
Other	



Community Classifications

Table 9.1-5. Community Classifications

Program	Classification	Date Classified
Community Rating System (CRS)	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	N/A	N/A
Public Protection	N/A	N/A
Storm Ready	Storm Ready	February 2000
Firewise	NP	N/A

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

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

Criteria for classification credits are outlined in the following documents:

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

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

It is the intention of this County to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of the County’s administrative, regulatory and operational framework. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into existing County programs and planning mechanisms, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation “capabilities”:

Land Use Planning: The Department of Economic Development and Planning supports all aspects of local planning, and seeks to integrate considerations of natural hazard risk and support mitigation project identification and implementation through its planning programs and resources. The Department has been directly supporting the ongoing New York Rising Community Redevelopment programs in participating communities, and have identified a number of County-led mitigation initiatives to address vulnerable areas within the County.



Stream Maintenance and Stormwater Management Programs: Through SCDPW and SC Parks Department, the County continues to support stream maintenance and stormwater management programs to mitigate local flooding issues. Specific related mitigation initiatives are included in the County's updated mitigation strategy.

Planning for Coastal Storms: The County continues to develop and enhance plans to include comprehensive evaluation of coastal storms and the reduction of their impacts at local level, and seeks to coordinate all levels of planning in this area. The efforts of the Regional Catastrophic Planning Team and the program are winding down over the next 2 years. Many plans have been completed and are presently being distributed. The RCPT hired a regional field liaison to visit each jurisdiction and advocate and educate for the use of the plans.

Integration of Improved Hazard Information into Existing Emergency Management Plans: The County continues to develop, enhance and implement existing emergency response plans to utilize new and developing technology/information as it becomes available. Bus Evacuation Plan has been updated to include home pick-ups, a call center, and designated phone number. Fire Island Evacuation and Re-Occupation plans have been completed. Equipment Typing is a work-in-progress, as is the Resource database both of which will continue to be refined as new information and data become available.

Development of Improved Asset Information to support Risk/Vulnerability Assessment and Mitigation Efforts: The County continues to work to resolve discrepancy between the Real Property Tax Dept. and the Treasurer's Office databases regarding number of tax parcels to support or enhance County-wide risk assessment. Further, through this plan update process, the County is continues to enhance the building inventory for all of Suffolk County using latest technology and GIS applications for use within HAZUS-MH for future risk assessment to be performed by Suffolk County, Towns and Villages. These databases are being made available to all plan participants and County stakeholders to support mitigation efforts, including performing Benefit-Cost Analysis for grant applications.

Public Education and Outreach Programs: SC FRES routinely gives educational presentations to requesting organizations and regular scheduled meetings are held with the Emergency Managers in each of the ten towns within the County. Additional meetings are held with Native American Nations and a variety of safety organizations and forums across the County. SC Ready program flyers produced for information. SC received an HMPG 1692 Grant for Public Education and has established a website (www.suffolkcountyny.gov/mend) that presents a vast amount of information to the public. In addition, an approved LOI and subsequent HMGP application #1249 under DR 4085 is being submitted on 10/30/13 for expansion of the County Education Program over a three year period that will address hazards of concern to all County residents.

Presentations made by SC OEM staff to the public and organizations throughout the County have increased the awareness of Hazard Mitigation. The SC HMP website at www.suffolkcountyny.gov/respond has recorded over 19,000 visits since coming on line attesting to its visibility and stakeholder involvement. The current update of the SC HMP has an aggressive program for stakeholder involvement including the use of social media, on-line questionnaires and public meetings.

Using Tax-Lien and Open-Space Programs to reduce long term flood vulnerability: The County continues to curtail floodplain development by transferring flood-prone properties in the Narrows Bay area obtained by Suffolk County through tax lien procedures to the SC Parks, Recreation and Conservation Dept. for open space purposes as per Narrow Bay Floodplain and Mitigation Plan 1997.



Addressing Seismic Risk through Integration with Emergency Management Planning: Enhance the SC Comprehensive Emergency Management Plan (CEMP) to address the earthquake hazard, including the findings, recommendations and specific initiatives identified in this plan update.

Integrating Risk Data to support Land Use Planning: The County continues to inquire about future development in all participating jurisdictions annually, at the annual plan review meeting, and map these locations within GIS/HAZUS to determine if they are/are not located within identified hazard areas. Improvements in the County's GIS capabilities will facilitate this initiative in the future. It is a key discussion point in the Plan update and will be an Agenda item at each annual plan review meeting moving forward.



9.1.6 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 County’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 9.1-6. Past Mitigation Initiative Status

Description	Status	Review Comments
SC-1: Creation of a Suffolk County Multi-Jurisdictional Comprehensive Debris Management Plan.	In Progress, Ongoing	An amended version of this initiative has been carried forward in the County’s updated mitigation strategy. Following Hurricane Sandy the SC DPW began the assembly of a Countywide Debris Management Plan based on the successes and organizational structure utilized during Sandy, as well as the Debris Management Plan Template and Toolbox created by the Regional Catastrophic Planning Team.
SC-2: Stormwater Management – Nissequogue River and Lake Ronkonkoma areas – enhance stormwater conveyance capability in areas contributing to shallow groundwater.	Continuous/Ongoing	The SC DPW has supported both County and local efforts to improve stormwater conveyance within the area. This initiative has been carried forward in the County’s updated mitigation strategy.
SC-3: Cooperate with federal, state and local agencies to study, identify, and remediate the causes of shallow groundwater and flooding issue.	Continuous/Ongoing (SCDPW)	This initiative is being removed from the County’s updated mitigation strategy as it refers to activities that are an ongoing and normal part of County operations. Specific related have been identified within the County’s updated mitigation strategy.
SC-4: Implement proactive stream/drainage system maintenance.	Continuous/Ongoing (SCDPW, SC Parks)	This initiative is being removed from the County’s updated mitigation strategy as it refers to activities that are an ongoing and normal part of County operations.
SC-5: Provide backup power sources at vital critical facilities where necessary	In Progress	Power Assessment surveys of critical facilities throughout the County were repeatedly taken over the past several years in conjunction with the US ACE to identify and prioritize needs. Budget constraints and financial priorities within the County have delayed the procurement of backup power sources for these facilities. However, the electrical need profiles and prioritization of facilities has been completed.
SC-6: Continue to support actions of the Wild Fire Task Force	Continuous/Ongoing	Suffolk County coordinated with NYS to conduct Firewise training in the county. Firewise includes public education and outreach designed for home owners at risk in the wildland-urban interface. Suffolk County coordinated and financed the installation of 6 fire wells in the pine barrens where city water does not exist. NY Wildfire and Incident Management Academy increased their course availability by holding the academy in both the spring and fall (used to be just in the fall). Additionally, offered several courses free of charge to Suffolk County firefighters.
SC-7: Develop or enhance plans to include comprehensive evaluation of coastal storms and the reduction of their impacts at local level. Seek to coordinate all levels of planning in this area.	Continuous/Ongoing	This initiative is being removed from the County’s updated mitigation strategy as it refers to activities that are an ongoing and normal part of County operations. Specific related have been identified within the County’s updated mitigation strategy. The efforts of the Regional Catastrophic Planning Team and the program are winding down over the next 2 years. Many plans have been completed and are presently being distributed. The RCPT hired a regional field liaison to visit



Description	Status	Review Comments
		each jurisdiction and advocate and educate for the use of the plans.
SC-8: Continue to develop, enhance and implement existing emergency response plans to utilize new and developing technology/information as it becomes available.	Continuous/Ongoing	<p>This initiative is being removed from the County’s updated mitigation strategy as it refers to activities that are an ongoing and normal part of County operations. Specific related have been identified within the County’s updated mitigation strategy.</p> <p>Bus Evacuation Plan has been updated to include home pick-ups, a call center, and designated phone number. Other private bus companies have been brought into the plan as well. Fire Island Evacuation and Re-Occupation plans have been completed. Equipment Typing is a work-in-progress, as is the Resource database both of which will continue to be refined as new information and data become available.</p>
SC-9: Expand the public education on ways to protect their property before and during hazard events and where they can acquire the appropriate property protection measures	Continuous/Ongoing	<p>An amended version of this initiative has been carried forward in the County’s updated mitigation strategy, specifically under the Sandy HMGP Project #931, “Mitigation Education for Natural Disasters” (MEND).</p> <p>SC FRES routinely gives educational presentations to requesting organizations and regular scheduled meetings are held with the Emergency Managers in each of the ten Towns in SC. Additional meetings are held with Native American Nations and a variety of Safety organizations and forums across the County. SC Ready program flyers produced for information. SC received an HMPG 1692 Grant for Public Education and has established a website www.suffolkcountyny.gov/mend that presents a vast amount of information to the public. In addition, an approved LOI and subsequent HMGP application #1249 under DR 4085 is being submitted on 10/30/13 for expansion of the SC Education Program over a three year period that will address Hazards of Concern to all SC residents.</p>
SC-10: Continue/enhance the development of engineered beaches where appropriate	In Progress / Ongoing	<p>An amended version of this initiative has been carried forward in the County’s updated mitigation strategy, specifically to include the following mitigation initiative.</p> <p>The Disaster Relief Appropriations Act of 2013 established a pool of \$700 million for the Fire Island to Montauk Point (FIMP) project to upgrade natural and manmade storm protections along the 83 mile stretch of Long Island’s south shore. The US ACE will be working with NYS and SC to establish multiple barriers of protection including: dune enhancement; surge dampening; elevation of homes and transportation infrastructure; and modifications to facilitate movement of sand along the shoreline and inlets. This multi-year US ACE project which will become a national model for managing shorelines and protecting coastal communities is expected to begin during the winter of 2013/2014 and will address floodplain management and maintenance activities moving forward.</p>
SC-11: Develop or enhance existing beach nourishment plans	In Progress / Ongoing	This initiative has been carried forward within the amended prior initiative.
SC-12: Enhance operation of the Suffolk County Emergency Operations Center (EOC) through improvements in facilities/hardware/technology and information as it becomes available.	In Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>Improvements to the SC EOC are continually being made. Recent improvements include improved space utilization, new laptop computer stations, new seating and furniture, new HVAC units, new large screen interactive TV/computers, improvements to software including the E-Team system for managing emergency and large scale events, procurement of CodeRed a reverse 911 calling system for emergency notifications, expansion of GIS capabilities, expansion of wifi capabilities, etc. SC is also moving forward with the establishment of a back-up EOC with the selection of a location and work beginning on initial</p>



Description	Status	Review Comments
		communication/data connections.
SC-13: Enhance functionality of Points of Distribution (PODs)	In Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>POD plans have been finalized. POD training and exercises in conjunction with SC Health Dept. and other organizations and agencies occur annually, including the use of POD's to distribute flu vaccinations to county employees. Improvements will continue to be made to more effectively make use of the POD concept.</p>
SC-14: Expand and enhance Joint Emergency Evacuation Program (JEEP) program through improvements to technology and information as it becomes available.	In Progress	<p>A modified version of this initiative has been carried forward in the updated County mitigation strategy, specifically to identify the changes noted below.</p> <p>The JEEP program has undergone improvements and is now known as the SC Emergency Preparedness Registry. SC FRES worked in conjunction with SC EMS, Office for People with Disabilities and IT, to put into service an on-line enrollment feature along with improvements to the database and applicant review and approval processes. Enrollment in the program has increased to over 750 individuals throughout the County who have special needs. The improvements made have been accomplished with existing staff and within the constraints of the SC Budget. The Program goals continue to be increasing enrollment and making technology and informational improvements as they become available through grant funding, cooperative efforts and available resources.</p>
SC-15: Resolve discrepancy between the Real Property Tax Dept. and the Treasurer's Office databases regarding number of tax parcels to support or enhance County-wide risk assessment	In Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>Efforts continue to align the two databases. Additional work is required and addressed as resources are available.</p>
SC-16: Cap Budget # 1729 - Implement the Suffolk County Information Technology Disaster Recovery Plan	In Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>This effort is on-going. There has been progress with the building of a Disaster Recovery Data Center in the Riverhead County Building. Equipment has been upgraded and future usage is being reviewed</p>
SC-17: Cap Budget # 3230 - Establishment of a Backup Fire Rescue Communications Facility	In Progress, 95% Completed	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>The establishment of a "Hot" back up Fire Rescue Communications Facility began in Nov 2010 and is fully operational at present (10/13). Final items are being addressed and the project is expected to be 100% completed by March 2014. The Project is funded from the SC Capital Budget.</p>
SC-18: Cap Budget # 3418 - Improvements to the Suffolk County Emergency Operations Center (EOC)	No Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>Due to financial limitations within the County this Budget Item in the SC Capital Budget has been reviewed for prioritization and rescheduled for subsequent years. It is expected to move forward when funding is available. A Letter of Intent (LOI) for SC EOC Improvements was submitted under the Sandy DR 4085 HMGP but no approvals were received to establish grant funding for this effort.</p>
SC-19: Enhance emergency preparedness awareness by active participation in training exercises at both the county and local levels	In Progress	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>SC OEM regularly participates in training exercises, tabletops and workshops both within and outside of the County with federal, state, local municipalities, Tribal</p>



Description	Status	Review Comments
		<p>Nations, PNP's, Utilities, Agencies and other organizations. On average FRES staff participates in over 20 training sessions each year. FRES regularly conducts training in our Emergency Management software system E-Team for all county departments, municipalities, agencies, and organizations as needed. In the last several years, over 400 people have been trained in the use of E-Team.</p>
<p>SC-20: Curtail floodplain development by transferring flood-prone properties in the Narrows Bay area obtained by Suffolk County through tax lien procedures to the SC Parks, Recreation and Conservation Dept. for open space purposes as per Narrow Bay Floodplain and Mitigation Plan 1997</p>	<p>In Progress (Planning and RE)</p>	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>Planning and RE</p>
<p>SC-21: Where appropriate, support retrofitting of structures located in flood-prone areas to protect structures from future damage, especially those known to be identified as "repetitive loss".</p>	<p>In Progress (SC DPW)</p>	<p>An amended version of this initiative has been carried forward in the updated County mitigation strategy, incorporating the following similar mitigation initiative.</p>
<p>SC-22: Where appropriate, support acquisition and relocation of structures from flood-prone areas, especially those known to be identified as "repetitive loss"</p>	<p>In Progress (Planning and RE)</p>	<p>This initiative is being carried forward as an amendment to the above.</p>
<p>SC-23: Maintain ocean inlets at current locations and configurations. Close new inlets if they develop.</p>	<p>In Progress</p>	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>The Disaster Relief Appropriations Act of 2013 established a pool of \$700 million for the Fire Island to Montauk Point (FIMP) project to upgrade natural and manmade storm protections along the 83 mile stretch of Long Island's south shore. The US ACE will be working with NYS and SC to establish multiple barriers of protection including: dune enhancement; surge dampening; elevation of homes and transportation infrastructure; and modifications to facilitate movement of sand along the shoreline and inlets. This multi-year US ACE project which will become a national model for managing shorelines and protecting coastal communities is expected to begin during the winter of 2013/2014 and will address floodplain management and maintenance activities moving forward.</p>
<p>SC-24: Through a regularly scheduled sand bypassing operation, stabilize ocean inlet channels for navigation and maintain the longshore transport of sand across the inlets.</p>	<p>In Progress</p>	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>The Disaster Relief Appropriations Act of 2013 established a pool of \$700 million for the Fire Island to Montauk Point (FIMP) project to upgrade natural and manmade storm protections along the 83 mile stretch of Long Island's south shore. The US ACE will be working with NYS and SC to establish multiple barriers of protection including: dune enhancement; surge dampening; elevation of homes and transportation infrastructure; and modifications to facilitate movement of sand along the shoreline and inlets. This multi-year US ACE project which will become a national model for managing shorelines and protecting coastal communities is expected to begin during the winter of 2013/2014 and will address floodplain management and maintenance activities moving forward.</p>
<p>SC-25: Participation in a multi-jurisdictional update of SC All Hazards Comprehensive Emergency Management Plan</p>	<p>In Progress (95% complete); Continuous</p>	<p>This initiative is being removed from the County's updated mitigation strategy as it refers to activities that have been established by the County within Section of this plan update.</p>
<p>SC-26: Ensure that all appropriate county employees are NIMS trained and qualified</p>	<p>In Progress</p>	<p>This initiative has been carried forward in the updated County mitigation strategy.</p> <p>SC FRES conducts NIMS and ICS training courses throughout the year for all County employees, municipalities, Agency and organizational emergency management personnel. Course announcements are distributed County-wide to ensure maximum visibility. Since 2006 approximately 4,700 personnel have been trained during 90 different training sessions in various levels</p>



Description	Status	Review Comments
		of NIMS and ICS
SC-27: Enhance the flood protection at the Suffolk County Maximum Security Facility Jail	In Progress (SCDPW)	An amended version of this initiative has been carried forward; see SC-32 below.
SC-28: Enhance the flood and shoreline protection at the Bergen Point Sewage Treatment Plant	In Progress (SCDPW)	An amended version of this initiative has been carried forward; see SC-32 below.
SC-29: Develop and/or enhance the current stormwater management system to be in compliance with federal and state regulations such that there will be a net reduction in the flood risk caused by stormwater impacts	In Progress	2009 Update – DPW Drainage improvements. DPW and Planning
SC-30: Enhance the building inventory for all of Suffolk County using latest technology and GIS applications for use within HAZUS-MH for future risk assessment to be performed by Suffolk County, Towns and Villages	In Progress	Continuing improvements being made to building inventory through technology and GIS application capabilities.
SC-31: Continue to develop, enhance and implement plans to protect the 6 ½ mile Bergen Point Sewage Treatment Plant Ocean Outfall Pipe from damage during coastal or other hazard events	In Progress (SCDPW)	An amended version of this initiative has been carried forward; see SC-32 below.
SC-32: Retrofit critical facilities and infrastructure vulnerable to natural hazards.	In Progress	An amended version of this initiative has been carried forward in the updated County mitigation strategy, specifically identifying specific facilities and projects, including those identified in SC-27 and SC-28. 2009 Update – DPW prior HMGP grant application for SCPD headquarters
SC-33: Continue to support the implementation, monitoring, maintenance and updating of this Plan, as defined in Section 7.0	Ongoing / Continuous	This initiative is being removed from the updated strategy as it identifies a continuous and ongoing program. This plan update represents this ongoing effort.
SC-34: Enhance the SC Comprehensive Emergency Management Plan (CEMP) to address hazards from earthquakes	In Progress	This initiative has been carried forward in the updated County mitigation strategy. This effort is still planned however six Federal disaster declarations affecting Suffolk County since 2008, budget constraints, financial priorities and grant funding opportunities within the County have delayed the kickoff of this effort.
SC-35: Inquire about future development in all participating jurisdictions annually, at the annual plan review meeting, and map these locations within GIS/HAZUS to determine if they are/are not located within identified hazard areas. Update the plan with these findings.	In Progress	This initiative has been carried forward in the updated County mitigation strategy. Improvements in the County’s GIS capabilities will facilitate this initiative in the future. It is a key discussion point in the Plan update and will be an Agenda item at each annual plan review meeting moving forward.
SC-36 (added during 2009 update): Expand Stakeholder involvement and participation with SC HMP	In Progress / Ongoing	This initiative is being removed from the updated strategy as it identifies a continuous and ongoing program. This plan update represents this ongoing effort, which has now included all municipalities, the two Tribal Nations. Further, a comprehensive group of stakeholders have participated and provided input to this plan update process, as documented in Section 3. The updated mitigation strategy includes programs and initiatives that will further stakeholder involvement and participation in hazard mitigation throughout the county. Presentations made by SC OEM staff to the public and organizations throughout the County have increased the awareness of Hazard Mitigation. The SC HMP website at www.suffolkcountyny.gov/respond has recorded over 19,000 visits since coming on line attesting to its visibility and stakeholder involvement. The current update of the SC HMP has an aggressive program for stakeholder involvement including the use of social media, on-line questionnaires and public meetings.



Proposed Hazard Mitigation Initiatives for the Plan Update

Suffolk County 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 9.1-7 identifies the County'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 9.1-8 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

It is noted that a number of special purpose districts and Private-Non-Profits (PNPs) were identified as having submitted Letters of Intent under Sandy HMGP. All such stakeholders were included in the stakeholder outreach strategy identified in Section 3, and given the opportunity to identify whether they were intending to further pursue these or other mitigation projects. Various districts and private-non-profits have worked directly with either the County or municipalities and included their mitigation projects with the respective updated mitigation strategies, which may include associated Action Worksheets.

To fully account for those districts and PNPs who have identified interest in mitigation, at a minimum through the submission of an LOI, the County has identified such Sandy HMGP LOI applicants in Table 9.1-9 following the prioritization table. It is the intention of the County to support these stakeholders as appropriate, without providing financial support or implied manpower for the project(s), if and when they pursue funding and/or project implementation.



Table 9.1-7. 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	
SCEDP - 1	Ecological Restoration of the Stream Corridor and Floodplain in Mud Creek County Park, Suffolk County, NY											See Action Worksheet (SCEDP – 1 - Mud Creek Park – 030314)
SCEDP - 2	Acquisition of Properties within Coastal Flood Hazard Areas in Suffolk County, New York											See Action Worksheet (SCEDP -2 - Open Space Acquisitions - 030314)
SCEDP - 3	Bus Rapid Transit Demonstration Project											See Action Worksheet (SCEDP-3 - Bus Rapid Transit Demo Project)
SCEDP - 4	A pilot program to upgrade wastewater infrastructure in flood prone coastal communities in Suffolk County											See Action Worksheet (SCEPD-4 - Wastewater Infrastructure Upgrades)
SCEDP - 5 (Sandy HMFP LOI #1291)	Tidal Wetland Restoration at Smith Point County Park to Improve Protection against Flooding and Storm Damage											See Action Worksheet (SCEPD-5 - Smith Point Cty Park)
SCFRE S – 1	Build Local Floodplain Management and Disaster Recovery Capabilities											See Action Worksheet (SCFRES-1 - Floodplain Management - 031814)
SCFRE S – 2	Jurisdictional Knowledge of Mitigation Needs of Property Owners											See Action Worksheet (SCFRES-2 - Mitigation Info on Private Property - 031814)
SCFRE S – 3 (former SC-1)	Countywide Debris Management Plan											See Action Worksheet (SCFRES-3 - Debris Management Plan - 031814)
SCFRE S – 4	Create a Multi-Jurisdictional Seismic Safety Committee in											See Action Worksheet (SCFRES-4 - Seismic Safety Committee - 031814)



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
	Suffolk County										
SCFRE S – 5	Alignment of Mitigation through All Level of Authority					See Action Worksheet (SCFRES-5 - Alignment of Mitigation Initiatives)					
SCFRE S – 6 (former SC-9)	Mitigation Education for Natural Disasters.					See Action Worksheet (SCFRES-6 - LOI 931 - Mitigation Education - 031814)					
SCFRE S – 7	County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures					See Action Worksheet (SCFRES-7 - Housing Location and Relocation Planning Initiative - 050914)					
SCDP W-1 (Sandy HMGP LOI #280)	Restoration of Bulkheading throughout Suffolk County.					See Action Worksheet (SCDPW-1 - LOI 280 - 031814)					
SCDP W-2 (Sandy HMGP LOI #292)	Reconstruction of Shinnecock Canal Jetties and Bulkheads.					See Action Worksheet (SCDPW-2 - LOI 292 Shinnecock Locks - 033114)					
SCDP W-3 (Sandy HMGP LOI #302)	CP 5116, Safety and Drainage Improvements to the Center Medians on CR46, William Floyd Parkway, from Coraci Blvd. to Smith Point.					See Action Worksheet (SCDPW-3 - LOI 302 - 031814)					
SCDP W-4 (Sandy HMGP LOI #306)	Weatherproofing PDHQ Building for Hurricane					See Action Worksheet (SCDPW-4 - Weatherproof PDHQ - 033114)					
SCDP W-5	CP 8710, Northeast Branch Nissequogue					See Action Worksheet (SCDPW-5 - LOI 310 - 031814)					



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
(Sandy HMGP LOI #310)	River Restoration Project, from the vicinity of Clearbrook Drive to Miller's Pond.										
SCDP W-6 (Sandy HMGP LOIs #315, #350)	CP No: 5005 Project Title: Improvements to CR38, North Sea Road, from CR39, North road to vicinity of Noyack Road .					See Action Worksheet (SCDPW-6 - LOI 315_350 - 031814)					
SCDP W-7 (Sandy HMGP LOI #329)	CP 5583, Improvements to CR79, Sag Harbor/ Bridgehampton Turnpike, from Brick Kiln Road to NYS Rt. 27, Montauk Highway.					See Action Worksheet (SCDPW-7 - AW329 - 031314)					
SCDP W-8 (Sandy HMGP LOI #347)	Improvements to County Road 39, North Road/ Flying Point Road.					See Action Worksheet (SCDPW-8 - AW347 - 031314)					
SCDP W-9 (Sandy HMGP LOI #366)	Suffolk County Sewer District No.3 - Southwest - Infiltration/inflow.					See Action Worksheet (SCPDW-9 - LOI 366)					
SCDP W-10 (Sandy HMGP LOI # 373)	Suffolk County Sewer District No. 1 - Port Jefferson - Sewage Pump Station and Force Main.					See Action Worksheet (SCDPW-10 - LOI 373 - 031814)					
SCDP	Suffolk County Sewer					See Action Worksheet					



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
W-11 (Sandy HMGP LOI #378)	District No. 6 - Outfall Rehabilitation.										(SCDPW-11 - LOI 378 - 031414)
W-12 (Sandy HMGP LOI #382)	Suffolk County Sewer Districts Emergency Electric Generators.										See Action Worksheet (SCDPW-12 - LOI 382 - 031814)
W-13 (Sandy HMGP LOI #391)	Suffolk County Sewer District No. 3 - Southwest - Pumping Stations 9 & 10.										See Action Worksheet (SCDPW-13 - LOI 391)
W-14 (Sandy HMGP LOI #395)	Suffolk County Sewer District No. 3 - Southwest - Electrical Substation.										See Action Worksheet (SCDPW-14 - LOI 395)
W-15 (Sandy HMGP LOI #399)	Suffolk County Sewer District No. 3 - Southwest - Perimeter Wall.										See Action Worksheet (SCDPW-15 - LOI 399 - 031814)
W-16 (Sandy HMGP LOI #426)	Suffolk County Sewer District No.3 - Southwest - Ocean Outfall.										See Action Worksheet (SCDPW-16 - LOI 426 - 031814)
W-17 (Sandy HMGP LOI #426)	Suffolk County Sewer District No. 3 -										See Action Worksheet (SCDPW-17 - LOI 1129)





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
(Sandy HMGP LOI #1129)	Southwest - Co-generation.										
SCDP W-18 (Sandy HMGP LOI #403)	Suffolk County Sewer Districts Vulnerability Analyses					See Action Worksheet (SCDPW-18 - LOI 403)					
SCPD – 1	Radio Tower Infrastructure Retrofit.					See Action Worksheet (SCPD-1 - Radio Tower Retrofit - LOI 414)					
SCPD – 2	Marine Bureau Fuel Supply Protection Project.					See Action Worksheet (SCPD-2 - Marine Bureau Fuel - LOI 417)					
SCPD – 3	Marine Bureau Shop Damage Mitigation Project.					See Action Worksheet (SCPD- 3 - Marine Bureau Shop Mitigation - LOI 428)					
SCPD – 4	Permanent Generator Installation- 911 Backup Center.					See Action Worksheet (SCPD-4 - Generator 911 Backup - LOI 1835)					
SCPD – 5	Permanent Generator Installation- Aviation East Hanger.					See Action Worksheet (SCPD-5 - Generator Aviation East Hanger - LOI 1836)					
SCPD – 6	Permanent Generator Installation- Police Academy Emergency Work Shelter.					See Action Worksheet (SCPD-6 - Generator Academy Worker Shelter - LOI 1837)					
SCPD – 7	Permanent Generator Installation- Special Patrol Bureau.					See Action Worksheet (SCPD-7 - Generator Special Patrol Bureau - LOI 1839)					
Sandy HMGP LOI #1845	Permanent Generator Installation- Marine Bureau.					Currently being addressed by DPW as part of a 406 funded project.					



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	
SCSW CD-1	Drainage Deflection Maintenance to Protect Public and Private Property on Eastern Suffolk											See Action Worksheet (SCSWCD-1 - AW16 - 032614)
SCDHS -1	Suffolk County DSS Emergency Generators Countywide.											See Action Worksheet (SCDHS-1 - Generator LOI 1840 – 033114)
SCDSS -1	Suffolk County DSS Emergency Generators Countywide.											See Action Worksheet (SCDSS-1 - Generators LOI 1790 - 033114)
SCParks - 1	Meschutt Beach County Park: Develop "engineered beach"											See Action Worksheet (SCParks-1-Meschutt Beach)
SCParks - 3	Orient Point County Park - Infrastructure protection and erosion control measures											See Action Worksheet (SCParks-3 - Orient Point)
SCParks - 4	Indian Island County Park: Infrastructure protection & erosion control measures for the "bluff"											See Action Worksheet (SCParks-4 - Indian Island County Park Bluff)
SCParks - 5	Indian Island Golf Course: Erosion control measure to protect Hole #5											See Action Worksheet (SCParks-5 - Indian Island Golf Course)
SCParks - 6	Cedar Point Lighthouse: Reinforce Structural Integrity to protect against storm activity											See Action Worksheet (SCParks-6 - Cedar Point Lighthouse)
SCParks - 7	Long Island Maritime Museum: Historic buildings - Raise historic structures (Oyster House, Penny Boat Bldg.) to protect against storm surges.											See Action Worksheet (SCParks-7 - Long Island Maritime Museum)
SCParks - 8	Timber Point Golf Course: erosion											See Action Worksheet (SCParks-8 - Timber Point Golf Course)



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
	control measures - The areas along the Great South Bay (Blue Course holes 5 & 6 and "Gibraltar") could be protected against erosion and storm surges by the installation of rip rap up the slope of Gibraltar and the installation of a protective, vegetated berm along the fairways of Holes 5 & 6.										
SCParks-9 (Sandy HMGP LOI #242)	Coindre Hall Boat House Complex Stabilization & Restoration.	See Action Worksheet (SCParks-9 - LOI 242 Coindre Boathouse - 031814)									
SC-2	Stormwater Management – Nissequogue River and Lake Ronkonkoma areas – enhance stormwater conveyance capability in areas contributing to shallow groundwater.	New and Existing	All except Wildfire, Earthquake, Infestation and Drought	2,3,4,5,6,7,9,11, & 15	SC Parks Dept.	Medium (property protection through flood reduction and shallow g/w infiltration)	Medium (Preliminary Estimate \$794,000)	FEMA-HMGP or PDM Grant and County Operating budget for local share	Long Term, DOF	Medium	SIP, NRP
SC-5	Provide backup power sources at vital critical facilities where necessary. Specific facilities have been identified in this strategy.	Existing	All	3,7,14,15 & 16	SC FRES	High (continued service of critical facilities)	Low, OG	Leverage Existing Red Cross Grant Program in conjunction with Suffolk & Nassau Counties	Short Term	High	SIP
SC-6	Continue to support actions of the Wild Fire Task Force.	New and Existing	Wildfire	1,2,3,4,5,6,7,8,11,12,13,14,15, & 16	SC FRES	Low (improved wildfire risk)	Low	County Operating Budget	Short Term	High	All types





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
						management)					
SC-10	Continue/enhance existing beach nourishment plans, and the development of engineered beaches where appropriate.	Existing	Hurricane, Nor'Easter, Coastal Erosion, Severe Storm, Flood, and Severe Winter Storm	2,4,5,6,15, & 16	SC Parks Dept.	High (protection of structures and infrastructure)	High	FEMA – FMA or PDM Grant and County Operating Budget for local share	Long Term, DOF	Medium	SIP, NRP
SC-12	Enhance operation of the Suffolk County Emergency Operations Center (EOC) through improvements in facilities/hardware/technology and information as it becomes available	NA	All	3,7,12,13,14, & 16	SC FRES - OEM	High (enhanced emergency management function; life safety)	Low, OG	County Operating and Capital Budgets	Short Term	High	SIP
SC-13	Enhance functionality of Points of Distribution (PODs).	NA	All	3,7,12,13,14, & 16	SC FRES	Medium (improved post-disaster logistics)	Low, OG	Leverage existing programs with County Operating Budget	Short Term	High	EAP
SC-14	Continue to expand and enhance SC Emergency Preparedness Registry (formerly known as the Joint Emergency Evacuation Program - JEEP) program through improvements to technology and information as it becomes available.	NA	All except Shallow Groundwater, Groundwater Contamination and Infestation	3,12,13, & 14	SC FRES	Low (life safety; improved preparedness)	Low, OG	Leverage existing programs with County Operating Budget	Short Term	High	EAP
SC-15	Resolve discrepancy between the Real Property Tax Dept. and the Treasurer's Office databases	NA	All	1,3,14,15	SC Treasurer's Office and Real Property	Low (improved property data to support risk)	Low, OG	Leverage existing programs with County Operating	Short Term	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
	regarding number of tax parcels to support or enhance County-wide risk assessment				Dept with assistance from SC IT and/or SC GIS	assessment and mitigation)		Budget			
SC-16	Cap Budget # 1729 Implement the Suffolk County Information Technology Disaster Recovery Plan	NA	All	3,12,13,14, & 16	SC Information Technology	Low (continued county operations post-disaster – COOP/COG)	Low (Budget Estimate \$2,100,000)	Suffolk County Capital Budget – transfer from General Fund	Short Term	High	All types
SC-17	Cap Budget # 3230 Establishment of a Backup Fire Rescue Communications Facility	New and existing	All	1,4,12,13,14 & 16	SC FRES	Medium (life safety; improved preparedness and response)	Low (Budget Estimate \$2,175,000)	Suffolk County Capital Budget – Serial Bonds and transfer from General Fund	Short Term	High	N/A
SC-18	Cap Budget # 3418 Improvements to the Suffolk County Emergency Operations Center (EOC)	Existing	All	3,7,12,13,14 & 16	SC FRES - OEM	Low (life safety; improved preparedness and response)	Low (Budget Estimate \$4,593,450)	Suffolk County Capital Budget – Serial bonds	Short Term	High	N/A
SC-19	Enhance emergency preparedness awareness by active participation in training exercises at both the county and local levels	NA	All	1,3,7,12,13, & 14	SC FRES – OEM	Low (life safety; improved preparedness and response)	Low, OG	County Operating Budget	Short Term	High	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
SC-20	Curtail floodplain development by transferring flood-prone properties in the Narrows Bay area obtained by Suffolk County through tax lien procedures to the SC Parks, Recreation and Conservation Dept. for open space purposes as per Narrow Bay Floodplain and Mitigation Plan 1997	Existing	Hurricane, Nor'Easter, Coastal Erosion, Severe Storm, Flood, and Severe Winter Storm	2,3,5,6,&15	SC Planning Dept.	High (eliminate future risk in known hazard zones)	Low, OG	Non-payment of taxes	Standing Program	High	LPR, NRP
SC-21 (and former SC-22)	Where appropriate, support retrofitting, acquisition and/or relocation of structures located in flood-prone areas to protect structures from future damage, especially those known to be identified as 'repetitive loss'.	Existing	Hurricane, Nor'Easter, Coastal Erosion, Severe Storm, Flood, Shallow Groundwater, and Severe Winter Storm	2,3,4,6,15&16	SC Planning Dept.	High (reduced risk to structures)	High	FEMA FMA,SRL, RFC, HMGP or PDM Grant and County Operating Budget for local share	Long Term, DOF	Medium	SIP
SC-23	Maintain ocean inlets at current locations and configurations. Close new inlets if they develop.	NA	Hurricane, Nor'Easter, Coastal Erosion, Severe Storm, Flood, and Severe Winter Storm	5,7,15&16	USACE and SC Planning Dept.	High (maintain natural features protecting structures and infrastructure)	High	Cooperative effort – USACE, NYS DEC, and SC	Long Term, DOF	Medium	NRP
SC-24	Through a regularly scheduled sand bypassing operation, stabilize ocean inlet channels for	NA	Hurricane, Nor'Easter, Coastal Erosion, Severe	5,7,15&16	USACE and SC Planning Dept.	High (maintain natural features protecting	High	Cooperative effort – USACE, NYS DEC, and SC	Periodic maintenance dredging	Medium	NRP





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
	navigation and maintain the long-shore transport of sand across the inlets.		Storm, Flood, and Severe Winter Storm			structures and infrastructure)					
SC-26	Ensure that all appropriate county employees are NIMS trained and qualified	NA	All	7,12,13,& 14	SC FRES	Low (improved emergency response and recovery)	Low	County Operating Budget	Short Term	High	N/A
SC-29	Develop and/or enhance the current stormwater management system to be in compliance with federal and state regulations such that there will be a net reduction in the flood risk caused by stormwater impacts	New and Existing	All except Earthquake, Wildfire, Infestation and Drought	2,3,4,5,6,7,9,11 &15	SC DPW	Medium (reduced flood risk to structures and infrastructure)	Medium	FEMA FMA, HMGP or PDM grant or County Operating/Capital budget	Long Term Depending on Funding (DOF)	Medium	LPR, NRP
SC-30	Enhance the building inventory for all of Suffolk County using latest technology and GIS applications for use within HAZUS-MH for future risk assessment to be performed by Suffolk County, Towns and Villages	NA	All	1,3,14 & 15	SC FRES with assistance from SC GIS and Town and Village GIS staffs	Medium (improved property data to support risk assessment and mitigation)	Medium	Leverage existing programs within the County, Town and Village Operating Budgets	Long Term Depending on Funding (DOF)	Medium	EAP
SC-32	Retrofit critical facilities and infrastructure vulnerable to natural hazards. Specifically identified are the following facilities: <ul style="list-style-type: none"> Enhance the flood protection at the Suffolk County Maximum Security Facility Jail (former SC-27) Enhance the flood and shoreline protection at the Bergen Point Sewage Treatment Plant (former SC-28) Continue to develop, enhance and implement plans to protect the 6 ½ mile Bergen Point Sewage Treatment Plant Ocean Outfall Pipe from damage during coastal or other hazard events (former SC-31) 										
	See above	Existing	All except Infestation, Natural Groundwater Contaminati	2,13,15 & 16	Owners of critical facilities and infrastructure	High (protection of critical facilities)	High	FEMA HMGP or PDM grant and/or Operating Budgets	Long Term Depending on Funding (DOF)	Medium	SIP





Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Objectives Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category
			on and Drought Earthquake								
SC-34	Enhance the SC Comprehensive Emergency Management Plan (CEMP) to address hazards from earthquakes. Implementation of this initiative will be supported by the development of the countywide Seismic Task Force (new Initiative SCFRES-4)	NA	Earthquake	1,3,12,13,&14	SC FRES - OEM	Medium (life-safety through improved post-disaster response)	Low	FEMA HMGP or DMP Grant and/or County Operating Budget	Short	High	LPR, EAP
SC-35	Inquire about future development in all participating jurisdictions annually, at the annual plan review meeting, and map these locations within GIS/HAZUS to determine if they are/are not located within identified hazard areas. Update the plan with these findings.										
	See above	New	All	3, 6, 15	SC FRES - OEM	Medium (improved data to support programs to protect high risk areas from development)	Low	County Operating Budget	Short	High	LPR, EAP

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 (incl. FMA, HMGP, PDM)
- HMA Hazard Mitigation Assistance grant program (incl. 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





Costs:

Where actual project costs have been reasonably estimated:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where actual project costs cannot reasonably be established at this time:

Low = Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.

Medium = Could budget for under existing work plan, but would require a reappropriation of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.

High = Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low = < \$10,000

Medium = \$10,000 to \$100,000

High = > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low = Long-term benefits of the project are difficult to quantify in the short term.

Medium = Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.

High = Project will have an immediate impact on the reduction of risk exposure to life and property.

Timeline:

Short = 1 to 5 years

Long Term = 5 years or greater

OG = On-going program

DOF = Depending on funding

Notes (for 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 9.1-8. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
SCEDP - 1	Ecological Restoration of the Stream Corridor and Floodplain in Mud Creek County Park, Suffolk County, NY	1	1	1	1	1	0	0	1	0	1	1	1	1	1	11	High
SCEDP- 2	Acquisition of Properties within Coastal Flood Hazard Areas in Suffolk County, New York	1	1	1	1	1	0	0	1	0	1	1	1	1	1	11	High
SCEDP- 3	Bus Rapid Transit Demonstration Project	1	-1	1	1	1	1	-1	1	1	0	1	1	1	1	9	Medium
SCEDP- 4	A pilot program to upgrade wastewater infrastructure in flood prone coastal communities in Suffolk County																High
SCEDP- 5	Tidal Wetland Restoration at Smith Point County Park to Improve Protection against Flooding and Storm Damage	0	1	1	0	0	0	1	1	1	0	0	1	1	1	8	Medium
SCFRES – 1	Build Local Floodplain Management and Disaster Recovery Capabilities	1	1	1	1	1	1	1	1	1	0	1	1	1	1	13	High
SCFRES – 2	Jurisdictional Knowledge of Mitigation Needs of Property Owners	0	1	1	1	1	1	0	0	0	1	0	1	1	0	8	Medium
SCFRES – 3 (former SC-1)	Countywide Debris Management Plan	1	1	1	1	1	0	1	1	0	1	1	1	1	1	12	High
SCFRES – 4	Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County	1	1	1	1	1	0	1	0	0	1	0	1	1	0	9	Medium/High
SCFRES – 5	Alignment of Mitigation through All Level of Authority	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCFRES – 6	Mitigation Education for	1	1	1	1	1	1	0	1	1	0	1	1	1	1	12	High





Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
(former SC-9)	Natural Disasters.																
SCFRES – 7	County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures.	1	0	1	1	1	1	1	0	1	1	1	1	1	1	12	High
SCDPW-1 (Sandy HMGP LOI #280)	Restoration of Bulkheading throughout Suffolk County.	1	1	1	1	1	0	1	0	0	1	1	1	1	0	10	High
SCDPW-2 (Sandy HMGP LOI #292)	Reconstruction of Shinnecock Canal Jetties and Bulkheads.	1	1	1	1	1	0	1	0	0	1	1	1	1	1	11	High
SCDPW-3 (Sandy HMGP LOI #302)	CP 5116, Safety and Drainage Improvements to the Center Medians on CR46, William Floyd Parkway, from Coraci Blvd. to Smith Point.	0	0	-1	0	1	0	1	1	0	1	-1	1	1	1	5	Medium
SCDPW-4 (Sandy HMGP LOI #306)	Weatherproofing PDHQ Building for Hurricane	1	1	1	1	1	0	0	0	1	1	-1	1	1	0	8	High
SCDPW-5 (Sandy HMGP LOI #310)	CP 8710, Northeast Branch Nissequogue River Restoration Project, from the vicinity of Clearbrook Drive to Miller’s Pond.	0	1	1	1	1	0	0	1	0	1	1	1	1	1	10	High
SCDPW-6 (Sandy HMGP LOIs #315, #350)	CP No: 5005 Project Title: Improvements to CR38, North Sea Road, from CR39, North road to vicinity of Noyack Road .	1	1	1	1	0	1	1	1	1	0	1	1	1	0	11	High
SCDPW-7 (Sandy HMGP LOI #329)	CP 5583, Improvements to CR79, Sag Harbor/ Bridgehampton Turnpike, from Brick Kiln Road to NYS Rt. 27, Montauk Highway.	1	1	1	1	0	1	1	1	0	1	1	1	1	0	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	Total	High / Medium / Low
SCDPW-8 (Sandy HMGP LOI #347)	Improvements to County Road 39, North Road/ Flying Point Road.	1	1	1	1	0	1	1	1	0	1	1	1	1	0	11	High
SCDPW-9 (Sandy HMGP LOI #366)	Suffolk County Sewer District No.3 - Southwest - Infiltration/inflow.	1	1	1	1	1	0	1	0	1	1	1	1	1	1	12	High
SCDPW-10 (Sandy HMGP LOI # 373)	Suffolk County Sewer District No. 1 - Port Jefferson - Sewage Pump Station and Force Main.	1	1	1	1	1	0	1	1	1	1	0	1	1	1	12	High
SCDPW-11 (Sandy HMGP LOI #378)	Suffolk County Sewer District No. 6 - Outfall Rehabilitation.	1	1	1	1	1	0	1	1	1	1	0	1	1	1	12	High
SCDPW-12 (Sandy HMGP LOI #382)	Suffolk County Sewer Districts Emergency Electric Generators.	1	1	1	1	1	0	1	1	1	1	0	1	1	1	12	High
SCDPW-13 (Sandy HMGP LOI #391)	Suffolk County Sewer District No. 3 - Southwest - Pumping Stations 9 & 10.	1	1	1	1	1	0	1	1	1	1	0	1	1	1	12	High
SCDPW-14 (Sandy HMGP LOI #395)	Suffolk County Sewer District No. 3 - Southwest - Electrical Substation.	1	1	1	1	1	0	1	1	1	1	0	1	1	1	12	High
SCDPW-15 (Sandy HMGP LOI #399)	Suffolk County Sewer District No. 3 - Southwest - Perimeter Wall.	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	High
SCDPW-16 (Sandy HMGP LOI #426)	Suffolk County Sewer District No.3 - Southwest - Ocean Outfall.	1	1	1	1	1	0	0	1	0	1	1	1	1	1	11	High
SCDPW-17	Suffolk County Sewer	1	1	1	1	1	0	1	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	Total	High / Medium / Low
(Sandy HMGP LOI #1129	District No. 3 - Southwest - Co-generation.																
SCDPW-18 (Sandy HMGP LOI #403)	Suffolk County Sewer Districts Vulnerability Analyses	1	1	1	1	1	0	1	1	1	1	1	1	1	1	13	High
SCPD – 1	Radio Tower Infrastructure Retrofit.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCPD – 2	Marine Bureau Fuel Supply Protection Project.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCPD – 3	Marine Bureau Shop Damage Mitigation Project.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCPD – 4	Permanent Generator Installation- 911 Backup Center.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCPD – 5	Permanent Generator Installation- Aviation East Hanger.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCPD – 6	Permanent Generator Installation- Police Academy Emergency Work Shelter.	1	0	1	1	1	1	1	1	0	1	1	1	1	1	12	High
SCPD – 7	Permanent Generator Installation- Special Patrol Bureau.	1	1	1	1	1	1	1	1	0	1	1	1	1	1	13	High
SCSWCD-1	Drainage Deflection Maintenance to Protect Public and Private Property on Eastern Suffolk	1	1	1	1	0	1	0	1	1	1	1	1	1	0	11	High
SCDHS-1	Suffolk County DSS Emergency Generators Countywide.	1	1	1	1	1	0	0	0	1	1	1	1	1	0	10	Medium
SCDSS-1	Suffolk County DSS Emergency Generators Countywide.	0	0	1	1	1	1	1	0	1	1	1	1	1	0	10	High
SCParks - 1	Meschutt Beach County Park: Develop "engineered beach"	0	1	1	1	1	1	1	1	1	1	1	1	1	1	13	High
SCParks - 3	Orient Point County Park -	0	1	1	1	1	1	0	0	0	1	1	1	1	0	9	High



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
	Infrastructure protection and erosion control measures																
SCParks - 4	Indian Island County Park: Infrastructure protection & erosion control measures for the "bluff"	0	1	1	1	1	1	1	1	0	1	1	1	1	1	12	High
SCParks - 5	Indian Island Golf Course: Erosion control measure to protect Hole #5	0	1	1	1	1	1	1	0	0	1	1	1	1	0	10	High
SCParks - 6	Cedar Point Lighthouse: Reinforce Structural Integrity	0	1	1	1	1	1	1	0	0	1	1	1	1	0	10	High
SCParks - 7	Long Island Maritime Museum: Raise historic structures.	0	1	1	1	1	1	1	0	0	1	1	1	1	0	10	High
SCParks - 8	Timber Point Golf Course: erosion control measures	0	1	1	1	1	1	1	0	0	1	1	1	1	0	10	High
SCParks-9 (Sandy HMGF LOI #242)	Coindre Hall Boat House Complex Stabilization & Restoration.	1	1	1	1	1	1	1	0	0	1	1	1	1	0	11	High
SC-2	Stormwater Management – Nissequogue River and Lake Ronkonkoma areas – enhance stormwater conveyance capability in areas contributing to shallow groundwater.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-5	Provide backup power sources at vital critical facilities where necessary. Specific facilities have been identified in this strategy.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-6	Continue to support actions of the Wild Fire Task Force.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-10	Continue/enhance existing beach nourishment plans, and the development of	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
	engineered beaches where appropriate.																
SC-12	Enhance operation of the Suffolk County Emergency Operations Center (EOC) through improvements in facilities/hardware/technology and information as it becomes available	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-13	Enhance functionality of Points of Distribution (PODs).	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-14	Continue to expand and enhance SC Emergency Preparedness Registry (formerly known as the Joint Emergency Evacuation Program -JEEP) program through improvements to technology and information as it becomes available.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-15	Resolve discrepancy between the Real Property Tax Dept. and the Treasurer’s Office databases regarding number of tax parcels to support or enhance County-wide risk assessment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-16	Cap Budget # 1729 Implement the Suffolk County Information Technology Disaster Recovery Plan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-17	Cap Budget # 3230 Establishment of a Backup Fire Rescue Communications Facility	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-18	Cap Budget # 3418	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	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	Total	High / Medium / Low
	Improvements to the Suffolk County Emergency Operations Center (EOC)																
SC-19	Enhance emergency preparedness awareness by active participation in training exercises at both the county and local levels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-20	Curtail floodplain development by transferring flood-prone properties in the Narrows Bay area obtained by Suffolk County through tax lien procedures to the SC Parks, Recreation and Conservation Dept. for open space purposes as per Narrow Bay Floodplain and Mitigation Plan 1997	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-21 (and former SC-22)	Where appropriate, support retrofitting, acquisition and/or relocation of structures located in flood-prone areas to protect structures from future damage, especially those known to be identified as 'repetitive loss'.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-23	Maintain ocean inlets at current locations and configurations. Close new inlets if they develop.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-24	Through a regularly scheduled sand by-passing operation, stabilize ocean inlet channels for navigation and maintain the longshore transport of sand across the inlets.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
SC-26	Ensure that all appropriate county employees are NIMS trained and qualified	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-29	Develop and/or enhance the current stormwater management system to be in compliance with federal and state regulations such that there will be a net reduction in the flood risk caused by stormwater impacts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-30	Enhance the building inventory for all of Suffolk County using latest technology and GIS applications for use within HAZUS-MH for future risk assessment to be performed by Suffolk County, Towns and Villages	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium
SC-32	Retrofit critical facilities and infrastructure vulnerable to natural hazards. Specifically identified are the following facilities: Enhance the flood protection at the Suffolk County Maximum Security Facility Jail (former SC-27) Enhance the flood and shoreline protection at the Bergen Point Sewage Treatment Plant (former SC-28) Continue to develop, enhance and implement plans to protect the 6 ½ mile Bergen Point Sewage Treatment Plant Ocean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Medium



Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
	Outfall Pipe from damage during coastal or other hazard events (former SC-31)																
SC-34	Enhance the SC Comprehensive Emergency Management Plan (CEMP) to address hazards from earthquakes. Implementation of this initiative will be supported by the development of the countywide Seismic Task Force (new Initiative SCFRES-4)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High
SC-35	Inquire about future development in all participating jurisdictions annually, at the annual plan review meeting, and map these locations within GIS/HAZUS to determine if they are/are not located within identified hazard areas. Update the plan with these findings.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	High

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions. Mitigation actions being carried forward from prior strategies have either retained their prioritization (shown by “-“ within updated prioritization criteria), or have been re-prioritized at the discretion of the County if they believe re-evaluation is inappropriate due to changed conditions since the original prioritization.



It is noted that a number of special purpose districts and Private-Non-Profits (PNPs) were identified as having submitted Letters of Intent under Sandy HMGP. All such stakeholders were included in the stakeholder outreach strategy identified in Section 3, and given the opportunity to identify whether they were intending to further pursue these or other mitigation projects. Various districts and private-non-profits have worked directly with either the County or municipalities and included their mitigation projects with the respective updated mitigation strategies, which may include associated Action Worksheets.

To fully account for those districts and PNPs who have identified interest in mitigation, at a minimum through the submission of an LOI, the County has identified such Sandy HMGP LOI applicants in Table 9.1-9. It is the intention of the County to support these stakeholders as appropriate, without providing financial support or implied manpower for the project(s), if and when they pursue funding and/or project implementation.

Table 9.1-9. Potential Special Purpose District and Private/Non-Profit Initiatives

LOI #	Applicant/Organization	Project Title
30	Huntington Hospital	Hospital Facility Hardening
31	Long Island Home	Hospital Facility Hardening
40	Southside Hospital	Hospital Facility Hardening
120	South Huntington Water District	Administration Building Fuel Station
388	Quick Social Services, Inc.	BASEMENT FLOODING/ROOF REPLACEMENT
638	Central Suffolk Hospital d/b/a Peconic Bay Medical Center	Structural Retrofitting of Peconic Bay Medical Center Roof
698	Point O' Woods Volunteer Fire Department	Maintain Operability of POWVFD; a premiere first responder team on Fire Island
1175	Good Samaritan Hospital Medical Center	Civil engineering study for mitigation of flooding at Good Samaritan Hospital Medical Center and Our Lady of Consolation Nursing
808	Lindenhurst School District	Hardening masonry window wall reconstruction
1024	Southside Hospital	Emergency ATO (in coordination with LIPA)
1026	Southside Hospital	Flood Mitigation
1029	Southside Hospital	Wind Mitigation
1032	Southside Hospital	Electrical & IT Mitigation
1042	Southside Hospital	Mechanical Mitigation
1206	The Nature Conservancy	Post-Sandy Natural Infrastructure Restoration and Rehabilitation
1396	John T. Mather Memorial Hospital	MRI Uninterrupted Power System
1557	South Huntington Water District	Emergency Generator for Plant 9
1846	Bayshore Fire District	Emergency Power Supply for Bayshore Fire Department



LOI #	Applicant/Organization	Project Title
1610	EPIC Long Island	Power Generators for Group Homes Serving Adults with DD
1619	EPIC Long Island	Power Generators for Group Homes Serving Adults with DD
1621	EPIC Long Island	Power Generators for Group Homes Serving Adults with DD
1623	The Way Back, Inc	15 Eagle Rd, Rocky Point Power Generator
1624	The Way Back, Inc	269 Veterans Memorial Highway, Commack Power Generator
1625	The Way Back, Inc	38 Catherine St, East Northport Power Generator
1631	Maryhaven Center of Hope	Standby generator installation
1634	Maryhaven Center of Hope	Standby generator installation
1635	Maryhaven Center of Hope	Standby generator installation
1636	EPIC Long Island	Power Generators for Group Homes Serving Adults with DD
1638	Maryhaven Center of Hope	Standby generator installation
1639	Maryhaven Center of Hope	Standby generator installation
1640	Maryhaven Center of Hope	Standby generator installation
1642	Maryhaven Center of Hope	Standby generator installation
1644	Maryhaven Center of Hope	Standby generator installation
1646	Maryhaven Center of Hope	Standby generator installation
1648	EPIC Long Island	Power Generators for Group Homes Serving Adults with DD
1650	Maryhaven Center of Hope	Stand by generator installation
1651	Maryhaven Center of Hope	Stand by generator installation
1661	Maryhaven Center of Hope	Standby generator installation
1662	Maryhaven Center of Hope	Standby generator installation
1663	Maryhaven Center of Hope	Standby generator installation
1664	Maryhaven Center of Hope	Standby generator installation
1665	Maryhaven Center of Hope	Standby generator installation
1666	Maryhaven Center of Hope	Standby generator installation
1667	Maryhaven Center of Hope	Standby generator installation
1668	Maryhaven Center of Hope	Standby generator installation
1669	Maryhaven Center of Hope	Standby generator installation
1674	Nassau Suffolk Services for the Autistic, Inc.	NSSA Lights On



LOI #	Applicant/Organization	Project Title
1682	Pederson Krag Center Inc	Back up generator
1688	IGHL	IGHL Permanent Back Up Power Systems
1764	Little Flower Children & Family Services of NY	Laurelton IRA back up generator
1771	Little Flower Children & Family Services of NY	Cottages 1 & 2 Back up generator
1799	AHRC Suffolk	AHRC Suffolk's IRA Permanent Back-up Power System
1800	Aid to the Developmentally Disabled, Inc.	Back-up Power
1847	Lindenhurst Fire Department	Project to supply emergency power to the Lindenhurst Fire Department
2263	Our Lady of Consolation Nursing Home	Emergency Electrical Power Generation for Our Lady of Consolation Nursing Home
2281	Good Samaritan Hospital Medical Center	Emergency Electrical Power Generation for Good Samaritan Hospital Medical Center
1920	Gordon Heights Fire District	The Back-Up Power Plan for the Gordon Heights Fire District
586	Concern for Independent Living, Inc.	Amityville Community Resource Center
1952	Holtsville Fire District	Generator for Critical Fire Protection Facility
1975	Options for Community Living, Inc.	Back Up Generator - Community Residence 1
1976	Options for Community Living, Inc.	Back Up Generator - Community Residence 2
1977	Options for Community Living, Inc.	Back Up Generator - Community Residence 3
1987	Brighter Tomorrows Inc.	Brighter Tomorrows Back Up Generator
1997	Catholic Charities - Alhambra	OPWDD Alhambra Emergency Power Backup
2002	Catholic Charities - Bishop Ryan	OPWDD Bishop Ryan Emergency Power Backup
2011	Catholic Charities - MotherTeresa	OPWDD Mother Teresa Emergency Power Backup
2012	Catholic Charities - Beebe	OPWDD Beebe Emergency Power Backup
2014	Catholic Charities - Beebe	OPWDD Beebe Emergency Power Backup
2016	Catholic Charities - Bustamante	OPWDD - Bustamante Emergency Power Backup
2018	Catholic Charities - Seton	OPWDD - Seton Emergency Power Backup
2020	Catholic Charities - Caritas	OPWDD - Caritas Emergency Power Backup
2022	Catholic Charities - Mako	OPWDD - Mako Emergency Power Backup
2028	United Cerebral Palsy	Church Street Generator
2030	United Cerebral Palsy	Elwood Generator
2032	United Cerebral Palsy	Dexter Generator
2035	Catholic Charities - Virdone	OPWDD - Virdone Emergency Power Backup





LOI #	Applicant/Organization	Project Title
2038	Catholic Charities - Ted Hansler	OPWDD Hansler Emergency Power Backup
2041	United Cerebral Palsy	Geery Generator
2044	United Cerebral Palsy	Harrison Generator
2045	United Cerebral Palsy	Lakeside Generator
2048	United Cerebral Palsy	Mayflower Generator
2049	United Cerebral Palsy	Old Town Generator
2050	Head Injury Association	Project Generator
2051	United Cerebral Palsy	Roe Blvd Generator
2052	United Cerebral Palsy	Martingale Court Generator
2054	United Cerebral Palsy	Silver Leaf Generator
2055	United Cerebral Palsy	Teele Generator
2056	United Cerebral Palsy	Tracy Lane Generator
2072	Developmental Disabilities Institute, Inc.	Install Generator for Meadow Glen - OPWDD Day Program Location
2074	Developmental Disabilities Institute, Inc.	Install Generator at Babylon IRA - OPWDD Residential Program Location
2076	Lindenhurst School District	Backup generator
2079	Lindenhurst School District	Hardening backup generator
2085	Developmental Disabilities Institute, Inc.	Install Generator for Bond Lane IRA - OPWDD Residential Program Location
2086	Developmental Disabilities Institute, Inc.	Install Generator for Creek Road IRA - OPWDD Residential Program Location
2087	Developmental Disabilities Institute, Inc.	Install Generator for Don Lane IRA - OPWDD Residential Program Location
2088	Developmental Disabilities Institute, Inc.	Install Generator for Edgar IRA - OPWDD Residential Program Location
2089	Developmental Disabilities Institute, Inc.	Install Generator for German Boulevard IRA - OPWDD Residential Program Location
2090	Developmental Disabilities Institute, Inc.	Install Generator for Greenlawn ICF - OPWDD Residential Program Location
2091	Developmental Disabilities Institute, Inc.	Install Generator for Gull Dip IRA - OPWDD Residential Program Location
2092	Developmental Disabilities Institute, Inc.	Install Generator for Maridon IRA - OPWDD Residential Program Location
2093	Developmental Disabilities Institute, Inc.	Install Generator for Melrose IRA - OPWDD Residential Program Location
2095	Developmental Disabilities Institute, Inc.	Install Generator for Plainview IRA - OPWDD Residential Program Location
2101	Developmental Disabilities Institute, Inc.	Install Generator for Radio Ave IRA - OPWDD Residential Property Location
2102	Developmental Disabilities Institute, Inc.	Install Generator for Richard Court IRA - OPWDD Residential Program Location
2103	Developmental Disabilities Institute, Inc.	Install Generator for Selden IRA - OPWDD Residential Program Location



LOI #	Applicant/Organization	Project Title
2105	Developmental Disabilities Institute, Inc.	Install Generator for Spencer House - OPWDD Residential Program Location
2128	St. Johnland Nursing Center, Inc.	St. Johnland Nursing Center Back-Up Generator Replacement
2143	Huntington Union Free School District	Backup Power Generator Plan
2165	Three Village Central School District	Emergency Backup Power
599	Concern for Independent Living, Inc.	Shoreham-Port Jefferson Community Residence Generators
2275	St. Catherine of Siena Medical Center	Emergency Electrical Power Generation for St. Catherine of Siena Medical Center
2276	St. Charles Hospital	Emergency Electrical Power Generation for St. Charles Hospital
2279	Catholic Charities Diocese Rockville Centre Talbot House	Generator
2285	Maryhaven Center of Hope	Emergency Electrical Power Generation for Maryhaven Center of Hope
2305	Catholic Schools - Diocese of Rockville Centre - Education Department	St. John the Baptist Diocesan High School
2306	Catholic Schools - Diocese of Rockville Centre - Education Department	McGann Mercy High School CHP project
2321	Thea Bowman FSPA	Thea Bowman Residence
2330	Patchogue Medford Schools	Patchogue Medford Critical Facility Backup Power
2340	Hope For Youth	"Power Up" project
2346	Patchogue Medford Schools	Saxton Red Cross Shelter Backup Power
2353	John T. Mather Memorial Hospital	Generator



9.1.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.1.8 Hazard Area Extent and Location

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

9.1.9 Additional Comments

None at this time.



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: Suffolk County Department of Health Services
Number: SCDHS – 1 (Sandy HMGP LOI #: 1840)
Mitigation Action/Initiative: PURCHASE AND INSTALLATION OF GENERATOR FOR FULL POWER SUPPLY AT COUNTY OWNED HEALTH CENTERS

Assessing the Risk	
Hazard(s) addressed:	
Specific problem being mitigated:	Hazards being mitigated: loss of power due to weather, power authority issues, terrorism, or other causes. This project will fund the purchase and installation of an emergency generator at one county-owned health center building – The Maxine S. Postal Tri-Community Health Center in Amityville. In case of emergency, this generator will provide for the full backup of all systems necessary to run the health center and treat those requiring medical attention.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No generator will be purchased for the M. Shellabarger South Brookhaven Health Center East (Shirley) due to proposed changes in operation and siting of that facility. 2. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	With the purchase of this generator, there will be two health centers with full backup generators. The centers are geographically separate, west and east: Amityville and Riverhead. This will ensure continuity of care as well as protection of expensive vaccines in the event of a disaster or emergency.
Mitigation Action/Project Type	Structure and infrastructure.
Objectives Met	Ensure continuity of care and protection of vaccines.
Applies to existing structures/infrastructure, future, or not applicable	Existing and future: At existing building, install new generator.
Benefits (losses avoided)	Avoid loss of care to patients. Avoid loss of expensive vaccines.
Estimated Cost	\$253,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Suffolk County Department of Health Services: Gary T. Amato, Accountant & Linda Suntup, Asst. Facilities Space Manager





Local Planning Mechanism	Suffolk County Department of Public Works staff and hired contractor.
Potential Funding Sources	Suffolk County Capital Program and Budget.
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)

PROGRESS REPORT

Date of report: March 19, 2014

General Status: Continuing

Planning: 75% complete

Funding: Nearly complete. Most funding has already been appropriated. Additional appropriation of \$25,000 will be required.

Funding Source: Suffolk County Capital Budget.

Timeline for Completion: Approximately June, 2015.





Prioritization

Number: SCDHS – 1 (Sandy HMGP LOI #: 1840)
Mitigation Action/Initiative: PURCHASE AND INSTALLATION OF GENERATORS FOR FULL POWER SUPPLY AT COUNTY OWNED HEALTH CENTERS

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Continue to provide health care.
Property Protection	1	Protect expensive vaccines.
Cost-Effectiveness	1	The cost of vaccine losses in power outages could be greater than generator purchase and installation cost. Benefits of continued provision of health care is not as easily measured in dollars but is even more valuable.
Technical	1	Project is very feasible. Equipment is expected to last more than 10 years.
Political	1	Public may not be aware of this but the population served will be very supportive.
Legal	0	Not applicable/neutral.
Fiscal	0	Most funding has been appropriated; additional appropriation of \$25,000 will be required. Funding source: Suffolk County Capital Budget.
Environmental	0	Neutral – no effect on environment.
Social	1	Positive rather than adverse effects.
Administrative	1	Personnel and administrative capabilities exist.
Multi-Hazard	1	Risks reduced of 2 hazards: loss of vaccines, loss of health care.
Timeline	1	Can be completed in about one year.
Agency Champion	1	County Health Dept. strongly supports and County Public Works very willing to aid in planning and implementing project.
Other Community Objectives	0	
Total	10	
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 280

Mitigation Action/Initiative: Restoration of Bulkheading throughout Suffolk County

Assessing the Risk	
Hazard(s) addressed:	Nor' Easter, Flooding (Coastal), Hurricane
Specific problem being mitigated:	The breakwater at Timber Point Police Marina, located at N40°42'45" and W73°08'38", protects the marina from damaging wave action. The marina is headquarters for the police marine bureau that serves and protects the surrounding waters of Suffolk County. The breakwater was substantially damaged during Hurricane Sandy. The marina is located at the southern tip of the Timber Point Golf Course, located at 150 Great River Rd, Great River, NY. The property is owned and maintained by Suffolk County. The marina is located on a minor channel off of the Great South Bay. The marina was rehabilitated in 1999 and 2009, and is currently in very good condition.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No action would cause the wave energy to continue through to the marina. This would cause the police vessels to rock heavily, likely breaking off from the mooring piles, and crashing into the bulkhead. Major impact into the bulkhead could result in catastrophic failure, resulting in collapse of the supported land and sidewalk. Floating docks would detach from the bulkhead and suffer significant damage.
	2. The proposed breakwater is not a solid wall. A solid breakwater was considered to prevent any wave energy from passing through the breakwater to the marina. Although this would benefit the marina, and better protect the boats, this option would require a costly hydrology study on the adjacent bulkheads to determine if they would be capable of handling the additional wave energy that they were not designed for. This option would also likely require extending the existing bulkhead opposite the canal to prevent erosion of the land due to additional wave energy.
	3. A second alternative considered is to raise the height of the breakwater to prevent overtopping. To do so would require removing the existing piles, and installing new, longer piles. This is estimated to increase the construction cost of the current option by \$100,000. Raising the height of the breakwater would diminish the line of sight of the boat operators, and therefore lead to boating accidents of two vessels coming around the breakwater at the same time. The increase in cost and the creation of this hazard is not worth the advantages of preventing overtopping.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The estimated costs to re-build the breakwater is \$207,000. The breakwater is approximately 560 square feet. This will slightly increase the wave energy in the 96,000 square foot canal, as well as decrease the wave energy in the 25,000 square foot marina. The project will include replacing approximately 80 cubic yards of clean fill that was washed away by hurricane sandy. The existing piles are in good condition, so the breakwater construction will be limited to carpentry work. The drawings





	and specifications are 80% complete.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 13, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structure
Benefits (losses avoided)	The expected future damage without an effective breakwater in place is a potential \$3,000,000 worth of police water vessels subject to damage. Also approximately \$50,000 in 2 floating docks and boat ramps and approximately \$500,000 potential damage to bulkhead sheeting.
Estimated Cost	\$207,000
Priority*	See Below
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Bridges & Structures
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	Grant funding with local cost share (Suffolk County, Owner)
Timeline for Completion	145 Weeks
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 #: 280

Mitigation Action/Initiative: Restoration of Bulkheading throughout Suffolk County

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	The breakwater protects the police boats in the marina. The marine bureau requires operational boats in emergency situations.
Property Protection	1	The breakwater reduces the wave energy, significantly reducing damage to the boats, bulkhead, and structures in the marina.
Cost-Effectiveness	1	The cost is significantly less than the potential loss of life and/or property damage.
Technical	1	The project is at 80% for design. The expected life of the new breakwater is 50 years.
Political	1	Yes, Suffolk County Dept. of Public Works and the Police Bureau have a strong willingness to re-build the breakwater. The Suffolk County Legislature has appropriated funds to improve the marina.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	1	Funds are available from existing appropriations for rehabilitation at the site.
Environmental	0	The project will not have any environmental impacts and will comply with all environmental regulations.
Social	0	Replacing this in-kind will not have any sociological effects.
Administrative	1	Yes, Suffolk County Dept. of Public Works will implement the project.
Multi-Hazard	1	Yes, reducing the wave energy in the marina protects the marina, the boats and docks in the marina, and the police bureau building.
Timeline	1	The timeline is 145 weeks.
Agency Champion	1	Yes, the Suffolk County Police Bureau has a strong desire to get the breakwater re-built to protect the marina and their boats.
Other Community Objectives	0	This project does not affect other local objectives. It does support the policies of local plans and programs.
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 292
Mitigation Action/Initiative: Reconstruction of Shinnecock Canal Jetties and Bulkheads

Assessing the Risk	
Hazard(s) addressed:	Flooding (Coastal), Hurricane
Specific problem being mitigated:	A backup emergency generator is necessary for operation of the Shinnecock Canal Locks, located at N40°53'19" and W72°30'03". In an emergency situation, the coast guard, as well as businesses along the canal, may need to navigate through the canal. When the tide gates are closed, it is absolutely necessary that the Lock Gates can be opened. The existing generator and transfer switch were damaged in Hurricane Sandy. The new generator will be located in the existing lock house, on an elevated concrete pad, adjacent to the Shinnecock Canal. The lock house is located just south of Sunrise Highway, off of Canal Road, adjacent to the Lock Gates. The surrounding area of the lockhouse is mostly paved, or concrete sidewalk, with a few shrubs.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. Take no action. A temporary generator is currently on site in a trailer. This is needed for emergency locations in other areas of the county, and cannot remain. If a permanent generator is not installed, and the canal is not navigable in an emergency situation, this can result in loss of property and life.</p> <p>2. Just replace the transfer switch. Although this would have a significant cost savings, this would rely on the temporary generator being at the site. If not, this would rely on a generator being available. These are not situations that can be guaranteed.</p> <p>3. To just replace the generator, and not the transfer switch. This would require the maintenance mechanic on site to have to manually switch the power source to the locks to the generator. This would be an extremely dangerous scenario to the maintenance mechanic in an emergency situation, and may result in a loss of his/her life.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>The install of a new generator and transfer switch at a raised elevation would ensure backup power to the lock gates in an emergency situation. The cost for the design, engineering, construction, and construction inspection to do so is estimated to be \$205,000. All NFIP requirements will be addressed in the design phase, including elevating to the 500-year-floodplain level. This level has not yet been determined due to time constraints. The concrete pads that the generator and transfer switch rest on will be set to this level.</p> <p>The Shinnecock Canal connects Peconic Bay to Shinnecock Bay, including Shinnecock Inlet, which connects to the ocean. During peak, hurricane season, an average of 400 boaters a day travel through the lock gates. The tide gates function by water pressure created by the difference in elevations between the two bays. The lock gates are opened and closed hydraulically.</p>





	<p>If the tide gates and lock gates were closed at the same time, navigation would not be possible. Without electric to power the pumps, the gates would be stuck. Function of the lock gates is absolutely necessary at all times for boaters to navigate Shinnecock Canal.</p> <p>A contractor will be hired to remove the existing generator and transfer switch, raise the concrete platforms, and install a new generator and transfer switch. The construction will not involve any excavation or earth-moving activities. The construction will not have any negative impacts on the surrounding areas as this area is only used for matters related to the Shinnecock lock/tide gates.</p> <p>The project is currently in the conceptual stage. No studies have been performed as the project will be replacing the current generator.</p>
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2, 13, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structure/generator
Benefits (losses avoided)	<p>This project involves replacing an existing generator that was rendered inoperable during Hurricane Sandy, as well as raising the generator and transfer switch elevations above the 500 year storm level. The benefit is not suffering future failure in the event another 100 yr. storm hits the region.</p> <p>The costs are mostly potential costs if a working generator is not on site. During a storm event, the site does/may lose power. Without power, there would be no means to open/close the lock gates. They would be stuck in the position they are at the time of the failure. This would put the following at risk:</p> <p>The United States Coast Guard has a station at the northern end of the canal. If the lock gates were stuck closed, they would have to travel 95 miles around the southern fork of Long Island to get to Shinnecock Bay. The normal route through the canal would be less than a mile. They would not be able to rapidly respond to an emergency in Shinnecock Bay, possibly resulting in loss of life.</p> <p>There are approximately 20 businesses along the canal that may need to travel up or down the canal during a storm event. The inability to do so may result in the loss of human life or property.</p> <p>During the summer season, there is an average of 400 boats a day that travel through the lock gates. The inability of these boats to cross would force them to re-route 95 miles around the south fork of Long Island.</p> <p>If the gates were stuck in the open position, this would cause the level of the water in the Peconic Bay, to the north, to rise. That could potentially cause flooding of the approximately 1000 homes and 100 businesses located along the shore.</p> <p>If the gates were stuck in the closed position, this would cause the level of Shinnecock Bay, to the south, to rise. That could potentially cause flooding of the approximately 200 homes and 20 businesses located along the shore.</p>





Estimated Cost	\$205,000
Priority*	See Below
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Bridges and Structures
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	Grant funding with local cost share (Suffolk County, owner)
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 #: 292

Mitigation Action/Initiative: Reconstruction of Shinnecock Canal Jetties and Bulkheads

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Navigation of the channel may be necessary to save lives in an emergency.
Property Protection	1	Raising the elevation of the generator and transfer switch will prevent damage.
Cost-Effectiveness	1	The cost is significantly less than the potential loss of life and property damage.
Technical	1	Construction of the raised pad will be relatively easy, and permanent.
Political	1	Yes, Suffolk County Dept. of Public Works has a strong willingness to get a permanent, operable generator on site as soon as possible.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	1	Funds could be used from existing appropriations for rehabilitation at the site.
Environmental	0	The project will not have any environmental impacts and will comply with all environmental regulations.
Social	0	Replacing this in-kind will not have any sociological effects.
Administrative	1	Yes; Suffolk County Dept. of Public Works will implement the project.
Multi-Hazard	1	Yes, prevents flooding and preserves transportation.
Timeline	1	The timeline is 108 weeks.
Agency Champion	1	Yes, Suffolk County Dept. of Public Works has a strong willingness to get a permanent, operable generator on site as soon as possible.
Other Community Objectives	1	Ensuring operation of the gates during a hurricane allows the coast guard and emergency personnel to travel the canal
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 302
Mitigation Action/Initiative: CP 5116, Safety and Drainage Improvements to the Center Medians on CR46, William Floyd Parkway, from Coraci Blvd. to Smith Point

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricane, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	During sever rain events (such as Superstorm Sandy), the roadway experiences localized flooding, and facilities and property damage due to inadequate drainage system/ facilities. Additionally, the roadway becomes impassable, therefor compromising emergency rescue and evacuation efforts. This problem has existed since the roadway was originally constructed in the early 1930's. Average annual costs are estimated to be approximately \$ 2,500,000. The drainage improvements will reduce the roadway flooding and improve safety throughout the corridor. In addition, the project will eliminate the need to provide emergency rescue services, flood insurance, and federal disaster assistance in the future. No studies have been performed to date.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No-build/ Unacceptable to maintain current risk level 2.Full Reconstruction w/ Positive Drainage/ Need ROW & Hydraulically inefficient, not cost effective 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The proposed project will reconstruct the existing drainage system/ swale located in the center median of CR46, William Floyd Parkway. The drainage system will be rebuilt employing the latest and most appropriate Best Management Practice (BMP) to remediate stormwater discharge runoff prior to discharge into local waterways. In addition, the project will also include shoulder and swale regarding, curb and gutter installation, and spot drainage improvements at localized flooding areas. This work is required after the drainage system is installed.
Mitigation Action/Project Type	SIP
Objectives Met	15,16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$2,500,000





Estimated Cost	\$5,000,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Paul McMahon, Principal Civil Engineer, Project Manager – paul.mcmahon@ suffolkcountyny.gov
Local Planning Mechanism	Suffolk County Capital Program
Potential Funding Sources	“HMGP; <u>25%</u> for Local Match”
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 3/7/2014 Progress on Action/Project: Preliminary Engineering is now complete. Consultant Engineering Firm will be procured to complete Final Design and Construction Bid Documents. Design and Construction Funding is programmed in Suffolk County Capital Program. Construction is scheduled for 2017.

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 302
Mitigation Action/Initiative: CP 5116, Safety and Drainage Improvements to the Center Medians on CR46, William Floyd Parkway, from Coraci Blvd. to Smith Point

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	Project will have minimal impact on safety
Property Protection	0	No structures in project area
Cost-Effectiveness	-1	High cost for very limited retention capacity
Technical	0	
Political	1	SC Legislature (Browning supports project)
Legal	0	This is a Suffolk County Project, not NY State
Fiscal	1	Project is programmed for funding in current Capital Program
Environmental	1	Project will improve Water Quality
Social	0	
Administrative	1	Project will be implemented by SCDPW
Multi-Hazard	-1	This project will only reduce some minor roadway surface flooding
Timeline	1	Yes, if construction funding is appropriated
Agency Champion	1	SC Legislator Kate Browning
Other Community Objectives	1	This project is in compliance with WQ improvement policy and is a capital improvement
Total	5	
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: Suffolk County
Number: 609
Mitigation Action/Initiative: Weatherproofing

Assessing the Risk	
Hazard(s) addressed:	<i>Hurricane / Wind Damage</i>
Specific problem being mitigated:	<i>Existing Suffolk County PDHQ building Envelope is not resistant to Category 3 Hurricane</i>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Build a Hurricane Resistant Bldg. elsewhere - too expensive 2. Install Removable covers on windows – Not effective 3. Install mechanically operated shutters – Impractical
Action/Project Intended for Implementation	
Description of Selected Action/Project	Removal and Replacement of Aluminum Curtain Wall System and Doors and Roof at SCPD HQ
Mitigation Action/Project Type	SIP
Objectives Met	# 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structure
Benefits (losses avoided)	The loss of the Command and Control functions that the Counties PDHQ building provides County Wide in a disaster would be devastating
Estimated Cost	<i>High</i>
Priority*	<i>High</i>
Plan for Implementation	
Responsible Organization	<i>SDPW</i>
Local Planning Mechanism	<i>"</i>
Potential Funding Sources	<i>Capital Project 1664 – “Energy Improvement Measures at County Buildings” and Capital Project 1603 – “Safety Improvements at County Buildings”</i>
Timeline for Completion	<i>13 months</i>
Reporting on Progress	
Date of Status Report/ Report of Progress	Date:3/30/14 Progress on Action/Project: Design substantially complete, contractor estimates received



* Refer to results of Prioritization (page 2)

Prioritization

Number: 609

Mitigation Action/Initiative: Weatherproofing

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	PDHQ functions are critical in the Counties response plans to a disaster such as a hurricane
Property Protection	1	“
Cost-Effectiveness	1	“
Technical	1	“
Political	1	“
Legal	0	
Fiscal	0	Existing budgets cannot fund project
Environmental	0	No impact on environment
Social	1	No impact Socially
Administrative	1	DPW can manage the project
Multi-Hazard	-1	No
Timeline	1	Can be completed in 1 year
Agency Champion	1	Many agencies will advocated for this project
Other Community Objectives		
Total	8	
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 310

Mitigation Action/Initiative: CP 8710, Northeast Branch Nissequogue River Restoration Project, from the vicinity of Clearbrook Drive to Miller’s Pond

Assessing the Risk

Hazard(s) addressed:	Shallow groundwater
Specific problem being mitigated:	<p>The proposed project will mitigate recurring groundwater flooding that impacts residents and businesses in the watershed area of Miller’s Pond and the Northeast Branch of the Nissequogue River. At least 268 homes are known to have experienced damages and another 662 are identified as likely to have experienced damages relating to the flood hazard. These 930 homes were identified through analysis of topography, groundwater contours and housing characteristics (elevations, basements). The affected area is located in the vicinity of Miller’s Pond and a 4,500 LF segment of the Northeast Branch of the Nissequogue River that runs from the point where the stream first enters the Village (in the vicinity of Clearbrook Drive) to the upstream limit of Miller’s Pond.</p> <p>The Suffolk County Hazard Mitigation Plan indicates that the Northeast Branch is one of the most widely recognized areas affected by shallow groundwater flooding in Suffolk County. This area was the subject of a 1980 study entitled “Drainage Improvements including Groundwater Relief” (H2M, 1980) prepared by the consulting engineering firm H2M for the Suffolk County Department of Public Works. This study indicates that the Northeast Branch is a series of ponds and streams which brings water to New Mill Pond for ultimate discharge to the Long Island Sound via the Nissequogue River. The H2M study identifies specific problem areas in the Northeast Branch and notes that the type, duration, cause, and history of the flooding problems in each of these areas varies. Mr. Ted Sanford, the former Town Engineer in Smithtown, stated in May 2007 that the areas identified in the H2M study are still quite accurate.</p> <p>The H2M Study summarized groundwater flooding problems in the Northeast Branch vicinity as follows: -As of the date of the study, groundwater levels were found to be quite high throughout the area, reflecting high amounts of precipitation over the previous five years. -A development boom in the late 1960s took place when water levels were very low as a result of severe drought in the early to mid</p>





1960s. This drought period, from 1960 to 1966, was the most severe drought recorded on Long Island, and groundwater levels dropped Island-side as much as 5 to 10 feet. In this area, where groundwater levels are typically among the highest on the Island, the drop in water table actually exceeded 10 feet in places.

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

The Northeast Branch of the Nissequogue River serves to drain stormwater and groundwater from its watershed. The waterway's ability to efficiently convey excess groundwater to downstream waters depends on the condition of the stream itself. Over the last 30+ years the Northeast Branch (including Miller's Pond) has been subjected to high silt and sediment loads from surrounding residential neighborhoods and roadways. The bottom profile of the waterway has become blocked by sediment, and debris (fallen trees, leaves, trash) has accumulated. These deposits have led to flow restrictions, decreased hydraulic capacity of culverts and streams, and further degraded the stream's capacity to convey groundwater away from the area. These conditions contribute to the groundwater hazard in the project area. Further, the culverts currently in place are of insufficient capacity to allow for optimal flows and are undersized for a 50 year storm as well as a 100 year storm. They need to be replaced with more modern structures with lower inlet elevations that will allow for greater drainage.

The project will address these problems by restoring the capacity of the Northeast Branch and improving stormwater infrastructure so that it may efficiently convey excess groundwater from its watershed, thereby providing relief from the shallow groundwater hazard. The H2M 1980 study provides engineering and analysis that supports the proposed project's feasibility and effectiveness. Final engineering and construction plans are currently under development and are expected to be complete by September/ 2013.

Damages associated with the groundwater flooding includes residents' costs to clean up from flooding, including pumping out basements (electricity, pumping parts/supplies, labor to monitor and repair pumps); cleaning supplies; dehumidifier replacement; labor to clean mold/algae; labor to disinfect; labor for repairs to sheetrock/masonry; supplies for replacement of walls, shelving, etc.

A benefit cost analysis BCA performed by the NYS Office of Emergency Management in November 2010 calculated total benefits of this project at \$3,637,438 and a BCA figure of greater than 1.





	Further detail is available upon request and the BCA will be updated should the subapplicant be invited to submit a full application under HMGP-4085.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No-build/ Unacceptable to maintain current risk level
	2. Full Reconstruction / on Local Roads and won't address current problem
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>The proposed project consists of implementation of stormwater management measures within a 4,500 LF segment of the Northeast Branch of the Nissequogue River as follows:</p> <ol style="list-style-type: none"> 1. Streambed restoration and silt removal. This process entails the use of small, high-capacity portable suction devices to remove sands and silts within stream channels. This strategy is modeled on work previously completed on an adjacent segment of the Northeast Branch of the Nissequogue River by the Town of Smithtown. 2. Culvert removal and installation of greater capacity culvert at lowered elevation. Two existing culverts will be demolished and replaced with modern culvert structures designed to a 100 year storm event. Invert elevations will be reduced by an estimated 12 inches to allow for more effective drainage of elevated groundwater. 3. Upland stormwater improvements to reduce flow of sediment to waterway, including installation of new or replacement of old catch basins with sediment filters. <p>Best Management Practices, public education as well as an appropriate maintenance schedule will be implemented to maintain natural function of the waterbody and sustain its ability to adequately convey groundwater away from the affected area.</p> <p>The intended outcome of the project is to lower groundwater levels in the project area and improve the stormwater and groundwater conveyance systems, so as to maximize the ability of these systems to convey excess stormwater from the impacted neighborhoods prior to being recharged back into the groundwater regime. To that end, proposed new culverts will be designed to accommodate flows generated by a 100 year storm event. The proposed improvements will have the affect of minimizing the extent and frequency of future stormwater and groundwater related flooding.</p>
Mitigation Action/Project Type	(SIP & NRP)
Objectives Met	5, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Structures





Benefits (losses avoided)	Recent Damages: 500,000
Estimated Cost	\$2,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Paul McMahon, Principal Civil Engineer
Local Planning Mechanism	County of Suffolk Capital Program
Potential Funding Sources	"HMGP; <u>25%</u> for Local Match"
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 3/10/2014 Progress on Action/Project: Preliminary Engineering is now complete. Final Design Plans and Construction Bid Documents are nearly complete. Construction Letting will be scheduled as funding becomes available.

* Refer to results of Prioritization (page 2)





Prioritization

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

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	Project will have minimal impact on safety
Property Protection	1	Project will help prevent against flood damage to residential properties
Cost-Effectiveness	1	Flood damage protection will greatly reduce property damage costs
Technical	1	Yes, Plans based on detailed hydraulic analysis and engineering
Political	1	This project has support of County and Local elected officials, and community civic groups
Legal	0	This is a County Project, not a State Project
Fiscal	0	Construction funds not yet secured
Environmental	1	This project has secured a NYSDEC Permit
Social	0	Project is on Public ROW
Administrative	1	Yes, SCDPW will implement the project
Multi-Hazard	1	This project will reduce flooding and reduce damages
Timeline	1	Yes, design is nearly complete and construction can be fast-tracked when funding is secured
Agency Champion	1	SC Legislator John Kennedy
Other Community Objectives	1	Project will advance WQ Improvement objective, preserve open spaces, and is a Capital Improvement
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 315/350 (LOIs were combined into one HMGP Application (#1537))
Mitigation Action/Initiative: CP No: 5005 Project Title: Drainage Improvements to CR 38, North Sea Road, from CR 39, North Road to vicinity of Noyack Road and CR 52, Sandy Hollow Road from CR 39, North Road to CR 38, North Sea Road

Assessing the Risk	
Hazard(s) addressed:	
Specific problem being mitigated:	During severe rain events (such as Superstorm Sandy), the roadway experiences localized flooding, and adjacent facilities and properties sustain damage due to inadequate drainage system/ facilities. Additionally, the roadway becomes impassable, therefore compromising emergency rescue and evacuation efforts. This problem has existed since the roadway was originally constructed in the early 1930's. The drainage improvements will reduce the roadway flooding and improve safety throughout the corridor. In addition, the project will eliminate the need to provide emergency rescue services, flood insurance, and federal disaster assistance in the future. No studies have been performed to date.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Construct New Infiltration Basin 2. Construct Leaching Basins only 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The proposed project will rehabilitate/ reconstruct the existing drainage system/ which is not adequate to handle the watershed area. The drainage system will be rebuilt employing the latest and most appropriate Best Management Practice (BMP) to remediate stormwater discharge runoff prior to discharge into local waterways/ recharge basins. In addition, the project will also include pavement rehabilitation and resurfacing, shoulder and swale regrading, curb, sidewalk and gutter installation, and spot drainage improvements at localized flooding areas. The roadway will need to be reconstructed after the drainage system is installed.
Mitigation Action/Project Type	Structure/Infrastructure Project
Objectives Met	13, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing and proposed infrastructure





Benefits (losses avoided)	\$20,000/year savings (approx. 50%)
Estimated Cost	\$5,200,000
Priority*	High (11/14)
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Erik Bergey, P.E., Senior Civil Engineer
Local Planning Mechanism	N/A
Potential Funding Sources	HMGP; Suffolk County Capital for Local Match
Timeline for Completion	156 weeks from start of conceptual design to construction closeout
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: March 12, 2014 Progress on Action/Project: FEMA HMGP Application submitted in December 2013.

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Sandy HMGP LOI #: 315/350

Mitigation Action/Initiative:

CP No: 5005 Project Title: Drainage Improvements to CR 38, North Sea Road, from CR 39, North Road to vicinity of Noyack Road and CR 52, Sandy Hollow Road from CR 39, North Road to CR 38, North Sea Road

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	0	
Legal	1	
Fiscal	1	
Environmental	1	
Social	1	
Administrative	0	
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 329
Mitigation Action/Initiative: CP 5583, Improvements to CR79, Sag Harbor/ Bridgehampton Turnpike, from Brick Kiln Road to NYS Rte 27, Montauk Highway

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	During severe rain events (such as Superstorm Sandy), the roadway experiences localized flooding, and facilities and property damage due to inadequate drainage system/ facilities. Additionally, the roadway becomes impassable, therefore compromising emergency rescue and evacuation efforts. This problem has existed since the roadway was originally constructed in the early 1930's. Average annual costs are estimated to be approximately \$ 3,000,000. The drainage improvements will reduce the roadway flooding and improve safety throughout the corridor. In addition, the project will eliminate the need to provide emergency rescue services, flood insurance, and federal disaster assistance in the future. No studies have been performed to date.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action – if no action is taken, flooding problems will continue and possibly worsen in severity. A major flood coinciding with a coastal evacuation would be devastating to the community, as CR 79 provides the best and safest route to SR 27. 2. Acquisition of Property for a Recharge Basin, Design and Construction of new positive drainage system – This is a lengthy/costly alternative and could take 10 years just to acquire a property. 3. Use Permeable Asphalt, Install tip-up and Leaching Basins – This alternative is very costly and take longer design construction schedule. Permeable asphalt is still not a well proven pavement alternative, especially given the time-consuming and costly maintenance considerations associated with it.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The proposed project will rehabilitate/ reconstruct the existing drainage system/ culvert system which is not adequate to handle the watershed area. The drainage system and culverts will be rebuilt employing the latest and most appropriate Best Management Practice (BMP) to remediate stormwater discharge runoff prior to discharge into local waterways/ recharge basins. In addition, the project will also include pavement rehabilitation and resurfacing, shoulder and swale regrading, curb, sidewalk and gutter installation, and spot drainage improvements at localized flooding areas. The roadway will need to be reconstructed after the drainage system is installed.





Mitigation Action/Project Type	SIP – Road Rehabilitation and Installation of new Drainage System.
Objectives Met	13,15,16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures
Benefits (losses avoided)	Recent Damages: \$4,999,997
Estimated Cost	\$10,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Joni Rivera, Jr. Civil Engineer
Local Planning Mechanism	N/A
Potential Funding Sources	“HMGP; <u>25%</u> 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 #: 329

Mitigation Action/Initiative: CP 5583, Improvements to CR79, Sag Harbor/ Bridgehampton Turnpike, from Brick Kiln Road to NYS Rte 27, Montauk Highway

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	0	
Legal	1	
Fiscal	1	
Environmental	1	
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 347

Mitigation Action/Initiative: Improvements to County Road 39, North Road/ Flying Point Road

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	This portion of CR 39 experiences flooding conditions due to old and insufficient drainage that caused the deterioration of the existing concrete panels and adjacent asphalt shoulders. The panels are cracking and the joints between the panels are open allowing water to drain to the roadway's subbase, which accelerates roadway deterioration. This has been an ongoing problem for several years. The average annual cost is \$ 250,000.00 No studies have been performed to date.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action – if no action is taken, flooding problems will continue and accelerates pavement deterioration. Complaints will increase and maintenance cost will increase.
	2. Installation of new positive drainage system, raise the lowest section to 1.5 feet, repair concrete joints, and resurface roadway. – This is costly and lengthy alternative.
	3. Full depth reconstruction of roadway, raising the road by 1.5 feet by selected borrow fill, install new drainage system. – This is more costly and lengthy alternative.
Action/Project Intended for Implementation	
Description of Selected Action/Project	This project will rehabilitate the existing roadway before it deteriorates to the point that a more costly full reconstruction will be required. There are two (2) roadways that cross the Shinnecock Canal and can be utilized to evacuate the South fork of Long Island. One is NYS Rte 27, Sunrise Highway (Coastal Evacuation Route) and the other is County Road 80, Montauk Highway. County Road 39 parallels both of these roadways and both roadways are accessible by County Road 39. CR 39 will operate as a part of the Coastal Evacuation Route especially if one of the other roadways will not be accessible. This project involves installation of stormwater treatment units and leaching basins, catch basins, reinforced concrete pipe, pavement repair, seeding and planting on disturbed areas during construction.
Mitigation Action/Project Type	SIP – Road Rehabilitation and Installation of New Drainage System
Objectives Met	13,15,16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures





Benefits (losses avoided)	Recent Damages: \$1,000,000
Estimated Cost	\$4,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Joni Rivera, Jr Civil Engineer
Local Planning Mechanism	N/A
Potential Funding Sources	"HMGP; <u>25%</u> 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 #: 347

Mitigation Action/Initiative: Improvements to County Road 39, North Road/ Flying Point Road

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	0	
Legal	1	
Fiscal	1	
Environmental	1	
Social	0	
Administrative	1	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	0	
Total	00	
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 366

Mitigation Action/Initiative: Suffolk County Sewer District No.3 - Southwest - Infiltration/Inflow

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	Sewer District No.3 - Southwest is located in the southwestern quadrant along the Great South Bay. During significant storms, the additional clean water that enters the collection system from adjacent surface waters or as a relief of homeowners utilizing sump pumps for flooded basements consumes capacity in the sewer system and treatment plant. Under these conditions, treatment could be inadequate and sanitary sewer overflows have occurred.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Expand the capacity of the treatment plant for an additional 10 million gallons per day (beyond the currently planned expansion) to treat the excess flow. The estimated budget for this alternative would be at \$90 million and would significantly exceed the cost of the project.
	2. Replace all the problem pipes within the project area with new PVC pipes to minimize infiltration. This estimated budget for this alternative would be \$183 million and would significantly exceed the cost of the project.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>Implement the collection system rehabilitation program to reduce the impact of infiltration and inflow (I/I) on the plant capacity, the system and the environment.</p> <p>Reducing I/I avoids overburdening the collection system and treatment plants which limits their capacity during extreme events. Reducing I/I will decrease the number of sanitary sewer overflows which may occur during major wet weather events.</p> <p>Suffolk County Department of Public Works is currently conducting the Inflow and Infiltration study in the three district study areas within the Sewer District No. 3 - Southwest located south of Montauk Highway (see attached map). The study is expected to be completed in June 2014 and will result in recommendations to rehabilitate sewer system to significantly decrease the amount of inflow and infiltration. These recommendations will be the basis for the design and appropriate limited construction to rehabilitate the collection system.</p>
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)





Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Losses: \$102,500 (estimated cost of treatment of excessive flows)
Estimated Cost	\$10,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation.
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds.
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 366

Mitigation Action/Initiative: Suffolk County Sewer District No.3 - Southwest - Infiltration/Inflow

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Derimental impact on collection system facilities can result in back-ups and overflows that can be a threat to public health
Property Protection	1	Property will be protected from damage to collection system infrastructure.
Cost-Effectiveness	1	The project will reduce cost of treatment and potential sanitary sewer overflows.
Technical	1	Technically feasible long term solution.
Political	1	There is political support for this project from both Suffolk County and the residents.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	1	The County 25% share of the project cost can be funded under existing program budgets.
Environmental	0	There are no environmental impacts foreseen.
Social	1	The project will benefit the entire community
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	1	The project will protect from flooding and potential sanitary sewer overflows
Timeline	1	Yes, the project can be completed within 5 years
Agency Champion	1	Entire staff behind protective measurement projects for Bergen Point
Other Community Objectives	1	The project supports policies of protection of water quality
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 373
Mitigation Action/Initiative: Suffolk County Sewer District No. 1 - Port Jefferson - Sewage Pump Station and Force Main

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	During storm events, storm water infiltrates into the sewer system causing the main pumping station to receive flows in excess of design capacity. The potential exists during storm conditions for sanitary sewer overflows to be created. The district is located on Port Jefferson Harbor and the village economic and environmental well being thrives on the Harbor water quality that could be in jeopardy. Storm Sandy had created a surge impacting the pump station site.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Inflow and infiltration studies and video inspections. Seek legal actions against any illegal connections of storm sewers/sump pump connections. These actions could be time consuming and costly without any immediate results to remedy the problems. 2. Upgrade of the pump station to include equalization that would aid in peak flow storm conditions. This solution may not be efficient enough in a major storm surge event. Land availability may also be an issue. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Portions of a larger force main are being installed with the SEQRA process and design finalization being performed for other portions. In addition, the pumping station will require upgrading along with further work to reduce infiltration and inflow. Once all work is completed, the Harbor would be protected from the results of events such as Storm Sandy.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$10,000
Estimated Cost	\$1,750,000
Priority*	High
Plan for Implementation	





Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 373

Mitigation Action/Initiative: Suffolk County Sewer District No. 1 - Port Jefferson - Sewage Pump Station and Force Main

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Flooding of pump station facilities can result in back ups and spills that can be a threat to public health safety.
Property Protection	1	Flooding of pump station facilities may result in damaged mechanical and electrical equipment.
Cost-Effectiveness	1	Costs are commensurate with benefits achieved.
Technical	1	Project is technically feasible and is a long term solution.
Political	1	There is political support of the project by both the Suffolk County and local agencies
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations
Social	1	All work for the project is within County owned or Village of Port Jefferson owned properties/ right of ways.
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	0	Project will only serve to avoid flooding of the existing pump station
Timeline	1	Project can be completed within 5 years
Agency Champion	1	There is a strong advocate for the project from County staff
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 378
Mitigation Action/Initiative: Suffolk County Sewer District No. 6 - Outfall Rehabilitation

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricane, Nor'Easters, Severe Storms, Severe Winter Storm
Specific problem being mitigated:	During Storm Sandy, the outfall pipe became clogged with storm surge backflow. By becoming clogged, the treated effluent could no longer be discharged into the appropriate location in Smithtown Bay with the sanitary sewer overflow being created upstream. Any overflow will enter the wetlands and Bay with the potential to have an environmental impact.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Cleaning of pipe from smaller structure further upstream or downstream. This is very difficult due to the size of the pipe and the structures and does not offer any solution to future system problems. 2. Replace pipe. This is the most costly solution due to being an inverted syphon under the river bed that would present environmental issues. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	An access manhole for cleaning and to perform pipe cleaning to prevent future clogging is necessary. The access manhole can be utilized to provide the cleaning/clearing of the outfall terminal point.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structure/Infrastructure
Benefits (losses avoided)	Recent Damages: \$150,000
Estimated Cost	\$1,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	"HMGP; _____ for Local Match"





Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 378

Mitigation Action/Initiative: Suffolk County Sewer District No. 6 - Outfall Rehabilitation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Flooding and back up of the outfall pipe can result in back ups and spills at the treatment facilities that can be a threat to public health safety
Property Protection	1	Flooding and back up of the outfall can result in back ups and spillages from the treatment process tanks that can damage equipment and property resulting in expensive cleanups and fines
Cost-Effectiveness	1	Costs are commensurate with benefits achieved
Technical	1	The project is a feasible long term solution
Political	1	There is overall project support from the County and local government agencies
Legal	0	This is not a NYS project; it is a Suffolk County project
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	The project will comply with all environmental regulations
Social	1	The property is owned and maintained by the Town of Smithtown
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	0	The project will only serve for the intended purpose
Timeline	1	The project can be completed within 5 years
Agency Champion	1	There is a strong advocate for the project from County staff
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 382
Mitigation Action/Initiative: Suffolk County Sewer Districts Emergency Electric Generators

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake
Specific problem being mitigated:	Although all 103 pumping stations and 23 treatment plants have emergency electric generators, there is the likelihood that a number will fail during a storm condition and/or extended use. During Storm Sandy, the systems operated continuously for over two weeks. With limited mobile units to support failed generators, redundancy is needed. The size and electrical characteristics determine the supplemental systems to be available. Many units are adjacent to homes or wetland/surface waters.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Purchase additional portable generators, trucks to transport and hire additional emergency personnel. This option has risks due to flooding of roads and downed trees and poles. 2. Run secondary power feeds from other sites. In the case of area wide power outages this would not work. Also this is a very large expense. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The purchase of additional mobile electric generators of variable sizes would be used for any failed units at the 103 pumping stations and 23 treatment plant sites. The plan is to purchase five to seven units in the 100 kw to 750 kw range depending on fuel tank capacity. Without pumping capacity, sewage cannot be conveyed for treatment and back-ups or overflows can occur.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 13, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$200,000
Estimated Cost	\$1,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: John Donovan, P.E., Chief Engineer





Local Planning Mechanism	Capital Project Review, Adoption, Implementation.
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds.
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization





Prioritization

Number: Sandy HMGP LOI #: 382

Mitigation Action/Initiative: Suffolk County Sewer Districts Emergency Electric Generators

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Loss of power at wastewater facilities can result in back ups and spills that can be a threat to public health safety
Property Protection	1	Loss of power can result in system back ups flooding out and damaging equipment.
Cost-Effectiveness	1	Costs are commensurate with benefits achieved.
Technical	1	It is a feasible long term solution.
Political	1	There is overall political will and support from the County and local governmental agencies.
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations.
Social	1	All properties are existing and owned by Suffolk County Department of Public Works.
Administrative	1	Suffolk County Department of Public Works will implement the project.
Multi-Hazard	0	The project will only serve to provide back up emergency power
Timeline	1	Project can be completed within 5 years if funding is secured.
Agency Champion	1	There is a strong advocate for the project from the County staff.
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 391
Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Pumping Stations 9 & 10

Assessing the Risk	
Hazard(s) addressed:	Flooding; Severe Storm
Specific problem being mitigated:	Both pump stations #9 and #10 were flooded during Superstorm Sandy. The elevation of mechanical and electrical equipment makes it vulnerable to potential damage during storm.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. Raise the elevation of the pump stations. This alternative will require significant structural, architectural and electrical changes to the building resulting in higher cost and longer project schedule comparing to the proposed project.</p> <p>2. Design and install a perimeter wall around the pumps stations at the appropriate elevation to mitigate flooding and potential disastrous impacts. The pump stations are located in the densely populated residential areas and community opposition would be expected. In addition, the higher costs and longer project schedule do not provide any significant benefits.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>SCDPW will protect the pump stations from future flooding and associated damage with flood barrier protection system at doors and windows The scope of work will include:</p> <ul style="list-style-type: none"> o Installation of flood barriers in front of the doors to 48 inches above floors o Relocation or modification of the louvers so that the bottom of the louvers is 48 inches above the floor. o Install lightweight barriers to the lower half of the existing windows up to 48 inches above the floor o Interior water proofing treatment of the wall separating the electrical room and wet well o Constructing a sump pump system in the floor of the electrical room to transfer water to the wet well that may leak into the room
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)





Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$188,000
Estimated Cost	\$600,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 391

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Pumping Stations 9 & 10

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Flooding of pump station facilities can result in backups and spills that can be a threat to public health safety.
Property Protection	1	Flooding of pump station facilities may result in damaged mechanical and electrical equipment.
Cost-Effectiveness	1	The project is considered highly cost-effective
Technical	1	Project is technically feasible and is a long term solution.
Political	1	There is political support of the project by both the Suffolk County and local agencies
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations
Social	1	All work for the project is within County owned or Villages of Amityville and Lindenhurst owned properties/ right of ways.
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	0	Project will only serve to avoid flooding of the existing pump station
Timeline	1	Project can be completed within one year once funding is secured
Agency Champion	1	There is a strong advocate for the project from County staff
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 395

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Electrical Substation

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	<p>During Superstorm Sandy, the plant experienced flooding up to a point of approximate elevation 13.0.</p> <p>The existing concrete slab that supports the substation/transformer site was constructed at elevation 16.0. The substation serves as the main hub for providing power to the whole plant from the utility and main generators and, as such, was at significant risk of being flooded.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Raise the elevation of the substation which would be 7-8 times more expensive than cost of the project. 2. Use temporary generators for all parts of the treatment plant in case of the power loss by substation. This is more expensive alternative that may not provide enough electrical capacity for significantly long periods of loss of power.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Protect the electrical substation/transformer site at the wastewater treatment plant. The proposed flood mitigation wall would consist of a reinforced concrete wall and footing and associated security fencing (see attached drawings). An 8-foot wide opening in the flood mitigation wall would be provided to allow access to the site during normal non-flooding conditions. An 8-foot wide removable flood gate would be provided for installation prior to storm/flood conditions.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 3, 16





Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Losses avoided: \$\$
Estimated Cost	\$600,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 395

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Electrical Substation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Will allow critical facility to remain operational and protected from flooding. Flooding of electrical substation could result in loss of power and would present a significant threat to public safety.
Property Protection	1	Flooding of electrical substation may result in damaged mechanical and electrical equipment.
Cost-Effectiveness	1	This project is considered highly cost effective
Technical	1	Project is technically feasible and is a long term solution.
Political	1	There is political support of the project by both the Suffolk County and local agencies
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations
Social	1	This project benefits all parts of the community equally.
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	0	Project will only serve to avoid flooding of the existing electrical substation
Timeline	1	Project can be completed within 2 years
Agency Champion	1	There is a strong advocate for the project from County staff
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 399

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Perimeter Wall

Assessing the Risk	
Hazard(s) addressed:	Flooding
Specific problem being mitigated:	The Bergen Point Wastewater Treatment facility is located on the Great South Bay. The facility is installed at an elevation that is subject to flooding which could be more severe in the future rendering the treatment process inadequate to handle the flows and provide adequate treatment. If the facility is inundated, the majority of equipment and a portion of the infrastructure would require replacement at a cost of over \$240 million, exclusive of months of inadequate treatment and associated economic and environmental loss. Historical data estimates that the value of the Bay far exceeds \$15 million annually relative to economic, recreational, environmental as well as collated benefits to the entire area.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Raise the buildings that are susceptible to flooding. This action would increase the cost far beyond the perimeter wall and cause operational problems during construction.
	2. Implement a system of channels, underdrains and sumps to catch and pump flood waters. The volume of flood and tidal waters that would have to be pumped would require massive pump stations that would be too costly.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install a flood wall around the entire Bergen Point site which is approximately 5,000 feet at an appropriate elevation to eliminate the flooding and potential disasterous impact such as Storm Sandy. The site varies in elevation from 10 to 15 and has experienced flood damage numerous times.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$1,000,000
Estimated Cost	\$20,000,000





Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption,, Implementation.
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds.
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 399

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest - Perimeter Wall

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will remove safety hazards of workers that must remain onsite.
Property Protection	1	Property will be protected from damage to buildings, machinery and flooding of process tankage.
Cost-Effectiveness	1	Flood prevention will save future costly damages to the plants infrastructure.
Technical	1	Technically feasible long term solution.
Political	0	This project has not been introduced for public commentary.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	1	The County 25% share of the project cost can be funded under existing program budgets.
Environmental	0	There are no environmental impacts foreseen. Permits from USACE and NYSDEC will be required.
Social	0	Property is owned entirely by Suffolk County
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	1	Yes, the wall will also serve as a protective barrier against intrusion
Timeline	1	Yes, the project can be designed and constructed within 5 years
Agency Champion	1	Entire staff behind protective measurement projects for Bergen Point
Other Community Objectives	0	N/A
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 426
Mitigation Action/Initiative: Suffolk County Sewer District No.3 - Southwest - Ocean Outfall

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricane, Nor'Easters,
Specific problem being mitigated:	As severe storms impact the flow and capacity at the Bergen Point Wastewater Treatment facility, the pumping system that must be used for high flow conditions feeds the ocean outfall under increased pressures. The outfall has been defined as being in a failed state where increased pressures could create a loss of discharge to the ocean and instead place treated effluent within the Great South Bay. The replacement outfall is a tunnel beneath the Bay thus eliminating any environmental issues. Damage to the Bay has significant economic loss and environmental impact well beyond the cost of the pipeline. Historical data estimates that the value of the Bay far exceeds \$15 million annually relative to economic, recreational, environmental as well as collated benefits to the entire area..
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Sliplining of the existing pipe by sliding a smaller pipe inside. This system however would decrease the inner diameter of the outfall pipe. This could result in choking the flow in storm flow events. 2. Dredging a new pipe into the bottom of the bay. This type of construction though widely used is not acceptable to the NYSDEC for environmental reasons 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The ocean outfall section which is beneath the Great South Bay is under design for a replacement such that high pressures and the type of pipe would not cause any concerns or failure and impact the Great South Bay. The current 72 inch diameter is to be replaced by a minimum 120 inch diameter with an improved pipe material at less pressure.
Mitigation Action/Project Type	Structure and infrastructure Project (SIP)
Objectives Met	2,15,16
Applies to existing structures/infrastructure, future, or not applicable	Existing structure/infrastructure
Benefits (losses avoided)	There are no direct monetary losses associated with the pipe. However damage to the pipe would result in major potential damage to the environmental and recreational uses of the Great South Bay.
Estimated Cost	\$242,000,000





Priority*	
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation.
Potential Funding Sources	75 % HMGP, 25% match from Capital Budget Funds
Timeline for Completion	Short term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 426

Mitigation Action/Initiative: Suffolk County Sewer District No.3 - Southwest - Ocean Outfall

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	The replacement of the pipe will result in protection of the public from possible contamination of the public waters due to leakage.
Property Protection	1	The pipe replacement will protect the environmental and recreational uses of the Great South Bay.
Cost-Effectiveness	1	Protection of the Great South Bay watershed is a very high priority.
Technical	1	This action is a long term, technically feasible solution.
Political	1	There is public support. Engineering design of this project is currently underway.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	0	Funding not secured. Must come from grants or other funding sources.
Environmental	1	The project will comply with environmental regulations.
Social	0	Property is State or Federally owned.
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	1	Replacement of the existing outfall will also ensure that no backups in the pipe will occur which could back up into the plant.
Timeline	1	Project can be completed within 5 years if funding is secured.
Agency Champion	1	There is strong support from the County and other local agencies.
Other Community Objectives	1	The project enhances economic development by allowing the capacity to increase flow and expand the sewer district to other communities.
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: Suffolk County Department of Public Works

Number: Sandy HMGP LOI #: 1129

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest – Co-generation

Assessing the Risk	
Hazard(s) addressed:	Severe storm, Nor’Easter, Severe Winter Storm
Specific problem being mitigated:	During extreme weather events, the electric service providing power for the Bergen Point Wastewater Treatment Plant is prone to failure. Regardless of the emergency electric generator on-site, the loss of power during strom events have caused concerns regarding the reliability of the system. The most feasible alternative is to provide a co-generation facility that would utilize natural gas that currently serves the site in order to create steam and, therefore, electricity in sufficient capacity to power essetnial components of the wastewater treatment plant.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. Use temporary generators for all parts of the treatment plant in case of the power loss. This is the alternative that may not provide enough electrical capacity for significantly long periods of loss of power.</p> <p>2. Use solar power to provide alternative source of energy. This alternative may have a potential in the future, however currently co-generation alternative has a better opportunity for providing uninterrupted power supply. In addition, the space constraints make this alternative less viable.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	Build a co-generation facility operating of natural gas which is currently available at the necessary capacities at the site. Following an evaluation of utilization of the more reliable and efficient back-up system, design and construction of the facility will follow.
Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure





Benefits (losses avoided)	Losses associated with loss of power to the plant will be avoided.
Estimated Cost	\$20,000,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: Gilbert Anderson, P.E., Commissioner
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 1129

Mitigation Action/Initiative: Suffolk County Sewer District No. 3 - Southwest – Co-generation

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Loss of electrical power during storms can result in backups and spills that can be a threat to public health safety.
Property Protection	1	Flooding of facilities may result in damaged mechanical and electrical equipment.
Cost-Effectiveness	1	Costs are commensurate with benefits achieved.
Technical	1	Project is technically feasible and is a long term solution.
Political	1	There is political support of the project by both the Suffolk County and local agencies
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations
Social	1	All work for the project will benefit the community served by Sewer District.
Administrative	1	Suffolk County Department of Public Works will implement the project
Multi-Hazard	1	Project will serve to avoid loss of power during multiple storm events
Timeline	1	Project can be completed within 5 years
Agency Champion	1	There is a strong advocate for the project from County staff
Other Community Objectives	1	This project does support policies of the emergency systems
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: Suffolk County Department of Public Works
Number: Sandy HMGP LOI #: 403
Mitigation Action/Initiative: Suffolk County Sewer Districts Vulnerability Analyses

Assessing the Risk	
Hazard(s) addressed:	Flooding, Severe Storms, Hurricane, Nor'Easter
Specific problem being mitigated:	Although steps has been identified to ensure that extreme weather events will have reduced impact on the sewer system infrastructure, a detailed qualification of risks and vulnerability for entire sewer infrastructure is necessary to provide full preparedness to additional extreme events. The project area includes 23 wastewater treatment plants and 103 pump stations.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. Raise the elevation of all major facilities located in the low laying areas. This is not a cost-effective way of addressing the problem since it would require a significant amount of funds and may not provide appropriate prioritization of assets and evaluation of risk.</p> <p>2. Build flood barriers around major treatment facilities. This would be an important element of the feasibility analyses, however it would not provide a comprehensive risk-based evaluation to protect all critical or high value wastewater infrastructure assets. Signifiact cost and long schedule makes this alternative not feasible.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>Have an experienced consulting firm provide a vulnerability analysis for the 103 pumping stations and 23 wastewater treatment facilities. A thorough evaluation and identification of risks lead to enhanced protection of sewer infrastructure and sewer system customers. The goal of this project is to identify critical elements of the wastewater infrastructure that must be protected and to identify and recommend smart risk reduction based investments to safeguard them. The vulnerability analyses will take into account the 2080 Sea Level Rise projections for Long Island in the NYS Sea Level Rise Task Force Report.</p> <p>The vulnerability assessment of the wastewater infrastructure will include:</p> <ol style="list-style-type: none"> 1) Identify the wastewater infrastructure areas and facilities (including chemical and fuel facilities) with highest risk of flooding and inundation 2) Recommend structural and non-structural options to protect facilities 3) Include additional options to protect electrical equipment 4) Identify additional infrastructure modifications to pump stations and wastewater treatment facilites with the goal of maintaining uninterrupted power supply and operations during flooding, loss of grid-sourced power and/or high flows to the plant 5) Develop implementation plan to carry out the actions identified by the vulnerability assessment



Mitigation Action/Project Type	Structure and Infrastructure Project (SIP)
Objectives Met	2, 3, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$370,000
Estimated Cost	\$250,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Department of Public Works: John Donovan, P.E., Chief Engineer
Local Planning Mechanism	Capital Project Review, Adoption, Implementation.
Potential Funding Sources	75% HMGP, 25% match from Capital Budget Funds.
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization



Number:

Sandy HMGP LOI #: 403

Mitigation Action/Initiative:

Suffolk County Sewer Districts Vulnerability Analysis

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Detrimental impact on sewer infrastructure facilities, including electrical, chemical and fuel facilities can result in back-ups and spills that can be a threat to public health safety
Property Protection	1	Property will be protected from damage to building, machinery and equipment as well as flooding of process tankage.
Cost-Effectiveness	1	Vulnerability analyses will save future costly damages to the plant and sewer infrastructure
Technical	1	The project is a technically feasible long term solution.
Political	1	There is overall political will and support from the County agencies.
Legal	0	This is not a NYS project; it is a Suffolk County project.
Fiscal	1	The 25% County share can be funded by existing capital budgets
Environmental	1	Project will comply with all environmental regulations.
Social	1	All properties are existing and owned by Suffolk County Department of Public Works.
Administrative	1	Suffolk County Department of Public Works will implement the project.
Multi-Hazard	1	The project provides protection against multiple hazards
Timeline	1	Project can be completed within 2 years if funding is secured.
Agency Champion	1	There is a strong advocate for the project from the County staff.
Other Community Objectives	1	This project does support policies of the protection of environmental quality
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: Suffolk County Department of Social Services
Number: SCDSS – 1 (Sandy HMGP LOI #: 1790)
Mitigation Action/Initiative: Suffolk County DSS Emergency Generators Countywide

Assessing the Risk	
Hazard(s) addressed:	Hurricanes, Nor’Esters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	The Department of Social Services is requesting the purchase and installation of generators for all of our offices. The Department currently has employees that work in eight locations. Six of these locations have public access.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Accept current level of risk.
Description of Selected Action/Project	<p>The Department of Social Services is requesting the purchase and installation of generators for all of our offices in four phases. The Department currently has employees that work in eight locations. Six of these locations have public access. The Mary Gordon Building and the MacArthur Building are the first two locations in priority. The Division of Information Technology is in the Mary Gordon Building. Their functionality is imperative to the Department’s core mission of assisting clients. Without their connectivity, telephone capabilities and functionality it cripples the department’s ability to serve the residents. In addition, the Commissioner’s Office and the Administration of the following divisions: Housing, Client Benefits, Medicaid, Personnel and Finance are represented in this building. Their continued functionality during disasters, as well as, the ability to limit any interruption of power is crucial for the services that are provided to Suffolk County residents during times of need. The MacArthur Building is where Child Support Enforcement Bureau and Family and Children Services (F/CS) offices are. The need to keep F/CS up and running is paramount to the critical functions of their Emergency Services (DSS after hour’s operation), Child Protective Services, Adult protective Services and other vital units.</p> <p>The Department is also requesting the purchase and installation of generators for the 4 Public Assistance and Medicaid Centers where the public of direct access to apply for benefits. In addition, the Department is requesting generators for Oser Avenue which has limited public access and Medicaid’s under-care units which does not have public access. Generators in these areas will allow the operations of the department to continue to be process with no disruption of service.</p>
Mitigation Action/Project Type	SIP





Objectives Met	13, 14, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Project is for all DSS Buildings
Benefits (losses avoided)	Recent Damages: The department experienced loss in productivity in the aftermath of Hurricane Sandy due to disruption in the workplace and extreme difficulty in providing much needed, critical services.
Estimated Cost	\$3,800,000
Priority*	HIGH
Plan for Implementation	
Responsible Organization	Suffolk County Department of Social Services: Kenneth Knappe, Principal Management Analyst
Local Planning Mechanism	Suffolk County
Potential Funding Sources	"HMGP; the local cost for the County's project is estimated to be 33%
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A - Timeline for completion is short Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: SCDSS – 1 (Sandy HMGP LOI #: 1790)

Mitigation Action/Initiative: Suffolk County DSS Emergency Generators Countywide

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	0	N/A
Cost-Effectiveness	1	Costs due to outages, and great lapse in productivity in staff who had to issue mandated benefits to Suffolk residents in need, would have been meet much more timely and lessen drain on other emergency services such as the American Red Cross and other community outreach organizations.
Technical	1	The project described is feasible and provides long-term assistance.
Political	1	Both the County Executive and legislature included this in their 2014 Capital Budget request
Legal	1	There is no need for State Authority to approve this project.
Fiscal	1	The project is eligible for Fed. and State reimbursement.
Environmental	0	N/A
Social	1	The current problem does affect a segment of the population, this would, positively remedy, that and allow DSS to provide services to those in need.
Administrative	1	Suffolk County Public Works has assisted DSS conceptually with this project thus far.
Multi-Hazard	1	This will assist DSS during any power outage and disruption in electrical services, allowing DSS to assist those in need.
Timeline	1	This project is estimated, to be completed in phases, all within 5 years.
Agency Champion	1	There is support from both the County Executive and Legislative branches for this project.
Other Community Objectives	0	This program supports other programs county wide – however, not sure if those objectives or projects are included in the overall Mitigation Plan
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: Suffolk County, NY – Dept. of Economic Development and Planning

Number: _____

Mitigation Action/Initiative: Ecological Restoration of the Stream Corridor and Floodplain in Mud Creek County Park, Suffolk County, NY

Assessing the Risk	
Hazard(s) addressed:	Flooding (riverine); groundwater contamination; shallow groundwater.
Specific problem being mitigated:	The overall goal is to implement a final, feasible, permitted plan of action to improve wetland and stream habitat conditions that were extensively degraded by the operation of a former duck farm located on a 45.8 acre site in East Patchogue, Town of Brookhaven that is now Suffolk County parkland. The project will complement the protection and management of the entire Mud Creek Watershed north of Montauk Highway. The primary focus will be restoration of fish and wildlife habitat within the 0.75 mile-long, riparian (stream floodplain) corridor of the East Branch of Mud Creek, as well as the freshwater wetland and upland habitats on the former Gallo Duck Farm.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. An intensive data collection effort and analysis of site condition in the Mud Creek stream corridor was conducted; alternative restoration concept plans were developed by a consultant team, and evaluated by the County. Final design plans for a fully vetted, shovel-ready project with all regulatory permits in place, will be completed by mid-2015.
	2.
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	This project includes structure demolition and debris clean-up, landform alteration, restoration of hydrological connections and invasive vegetation control for the freshwater wetland and riparian habitats of the East Branch of Mud Creek, as well as management strategies for the upland grassland and woodland habitats.
Mitigation Action/Project Type	Natural Systems Protection (NRP)
Objectives Met	1, 5, 8, 10
Applies to existing structures/infrastructure, future, or not applicable	N/A
Benefits (losses avoided)	Ecological restoration at Mud Creek County Park will 1) restore coastal plain stream and riparian habitat destroyed by historic duck farm operations, 2) provide high quality aquatic habitat for brook trout and native fish throughout the East Branch of Mud Creek, 3) provide diverse riparian and upland habitats for native plants and wildlife, 4) remove





	hazardous materials, dilapidated structures, abandoned equipment, and debris to ensure the safety of future visitors to Mud Creek County Park, and 5) provide a recreational and educational amenity for the residents of Suffolk County.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Dept. of Parks, Recreation & Conservation has jurisdiction.
Local Planning Mechanism	Capital Project Review, Adoption, Implementation
Potential Funding Sources	Grant funding with local cost share, with potential funds from the Suffolk ¼% Drinking Water Protection Program, and other sources as they become available.
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 3)





Prioritization

Number:

Mitigation Action/Initiative: Ecological Restoration of the Stream Corridor and Floodplain in Mud Creek County Park, Suffolk County, NY

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will remove hazardous material and debris from site.
Property Protection	1	Park management plan will be based on maintaining the function and integrity of the stream floodplain.
Cost-Effectiveness	1	Watershed protection is a high priority; over 100 acres have been protected to prevent development of fragile areas.
Technical	1	Yes; restoration plan based on detailed engineering/environmental analysis of conditions in park.
Political	1	Yes; Suffolk County provided \$643,000 for preparation of final design plan.
Legal	0	Not a NYS project; it is a Suffolk County project.
Fiscal	0	Construction funds not yet secured.
Environmental	1	Final, vetted construction project will improve riparian stream corridor and wetland habitats pursuant to conditions in secured permits from U.S. Army Corps of Engineers and NYSDEC.
Social	0	Most of the property in the upper watershed of Mud Creek is publicly-owned.
Administrative	1	Yes; Suffolk County Dept. of Parks and Dept. of Public Works will implement the project.
Multi-Hazard	1	Yes; removes hazardous materials, protects floodplain and improves water quality.
Timeline	1	Yes; if construction funding is secured.
Agency Champion	1	Yes; Suffolk County has demonstrated support through acquiring upland property in the watershed and commitment of funding for preparation of the design plan by a consultant team under contract.
Other Community Objectives	1	Yes; project is in accord within the NYS South Shore Estuary Reserve Plan recommendations pertaining to improving environmental quality of streams tributary to the Great South Bay; park access and public education.
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: Suffolk County, New York – Dept. of Economic Development and Planning

Number: _____

Mitigation Action/Initiative: Acquisition of Properties within Coastal Flood Hazard Areas in Suffolk County, New York

Assessing the Risk	
Hazard(s) addressed:	Coastal Erosion, Flooding (all), Hurricane, Nor'easters, Shallow Groundwater
Specific problem being mitigated:	Reducing development potential within flood hazard areas through the acquisition of properties within environmentally sensitive areas such as wetlands and watersheds.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Other options to mitigate the problems that arise from development in wetlands and watersheds do not provide the level of protection necessary to: 1) maintain natural coastal habitats; 2) reduce flooding impacts and erosion from hurricane and other storm surges and; 3) eliminate the potential for damages to structures that would require costly improvements if located within the areas identified for acquisition. 2. 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Acquisition of Properties within Coastal Flood Hazard Areas in Suffolk County, New York
Mitigation Action/Project Type	Natural Systems Protection (NRP)
Objectives Met	2, 5, 8, 10, and 15
Applies to existing structures/infrastructure, future, or not applicable	Not applicable (N/A)
Benefits (losses avoided)	Potential damage to properties developed and their structures including infra-structures such as roads and utilities.
Estimated Cost	High
Priority*	11 points - High
Plan for Implementation	
Responsible Organization	Suffolk County Dept. of Economic Development and Planning
Local Planning Mechanism	Acquisition of properties identified on Suffolk County's Comprehensive Master List Update – 2012 and other legislatively approved properties for





	open space and environmental protection.
Potential Funding Sources	Grant funding with local cost share - funds from Suffolk County's ¼% Drinking Water Protection Program.
Timeline for Completion	(OG) On-going Program
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: N/A Progress on Action/Project: N/A

* Refer to results of Prioritization (page 3)





Prioritization

Number:

Mitigation Action/Initiative:

Acquisition of Properties Within Coastal Flood Hazard Areas in Suffolk County, NY

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Preventing development reduces livable areas thereby protecting lives and preventing injuries.
Property Protection	1	Preventing development eliminates damage to structures.
Cost-Effectiveness	1	Preventing development eliminates future costs from emergency needs and rebuilding.
Technical	1	This is a long-term solution.
Political	1	Many properties were identified and approved for open space acquisition by the County Legislature.
Legal	0	Not a NYS project.
Fiscal	0	Looking to Federal, State and local funds to implement.
Environmental	1	Significantly can improve the viability of the existing tidal and freshwater wetlands and stream corridor watersheds from storm surge attenuation and habitat protection.
Social	0	All acquisitions are voluntary through willing sellers.
Administrative	1	Yes. The County Dept. of Economic Development and Planning acquires properties for Open Space and Dept. of Parks, Recreation and Conservation maintains properties.
Multi-Hazard	1	Yes. Protects floodplain and improves wetland functioning.
Timeline	1	Will accomplish acquisitions with all available funding provided within the five year time frame.
Agency Champion	1	Integral part of County Planning's Open Space initiatives over the last 30 years.
Other Community Objectives	1	Open Space Preservation.
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: Suffolk County Department of Economic Development and Planning
Number: #261/#1221
Mitigation Action/Initiative: Bus Rapid Transit Demonstration Project

Assessing the Risk	
Hazard(s) addressed:	Hurricane (tropical cyclones, including tropical storms, and tropical depressions), Nor'Easters (extra-tropical cyclones, including severe winter low-pressure systems), Severe Storms (windstorms, thunderstorms, hail, lightning, and tornados), Sever Winter Storm (heavy snow, blizzards, ice storms)
Specific problem being mitigated:	A lack of access to mass transportation during and immediately following extreme weather events and associated economic impacts
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No action - leaves the region vulnerable to future severe weather events. The negative impact to Suffolk County's economy attributable to gasoline supply disruption and restricted travel during and immediately following Superstorm Sandy was between \$65.0M and \$98.0M 2. North-South Light Rail System - providing rail connectivity to the three East-West branches of the LIRR . Cost prohibitive, \$1.8B to implement along three primary North-South corridors (\$35.0M per mile) 3. Emergency-Only Bus Fleet – implementing Bus Rapid Transit would change commuter habits, increase mass transit ridership during non-emergency situations, and increase the community's awareness of public transportation and its benefits. However, the community will be less likely to utilize mass transit on a regular basis, and therefore, less likely to adopt mass transit in times of emergency by simply boosting the capacity of the existing transportation system through use of an emergency-only bus fleet
Action/Project Intended for Implementation	
Description of Selected Action/Project	Implement Bus Rapid Transit along key north-south corridors to increase access to mass transit during and after severe weather events
Mitigation Action/Project Type	Save lives and reduce injury, Improve community management capability (prepare, respond, recover, mitigate), Maintain economic viability after a hazard event.
Objectives Met	6, 12, 13, 14, 16
Applies to existing structures/infrastructure, future, or not applicable	Not applicable
Benefits (losses avoided)	Recent Damages: \$65.0M - \$98.0M per severe weather event
Estimated Cost	High => \$100,000
Priority*	Medium





Plan for Implementation	
Responsible Organization	Suffolk County
Local Planning Mechanism	
Potential Funding Sources	Grant funding with local cost share
Timeline for Completion	OG = On Going Program
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

#261/#1221

Mitigation Action/Initiative:

Bus Rapid Transit Demonstration Project

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	-1	
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	-1	
Environmental	1	
Social	1	
Administrative	0	
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	
Other Community Objectives	1	
Total	7	
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: Suffolk County Department of Economic Development and Planning
Number: SCEDP- 4
Mitigation Action/Initiative: Upgrade wastewater infrastructure in flood prone coastal communities in Suffolk County

Assessing the Risk	
Hazard(s) addressed:	Flooding/Hurricane: Impacted wetlands damaged by excessive nitrogen loading from septic/cesspools
Specific problem being mitigated:	Rising nitrogen pollution fed from failing septic and cesspools along river corridors into our bays has caused not only a water quality crisis, but eroded our coastal wetlands to the point of failure.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Sewering selected areas
	2. Installing advanced onsite systems
	3. Installing community clustered systems
Action/Project Intended for Implementation	
Description of Selected Action/Project	Suffolk County proposes to strengthen our south shore coastal wetlands by removing 1,390 pounds of nitrogen a day discharged into tributaries leading into the our bays from failing septic systems and cesspools by providing advanced wastewater infrastructure. Sandy Recovery-related funding will enable the restoration of estuarine and bay marshlands by greatly reducing nitrogen from Lindenhurst to Mastic that degrades water quality, in estuaries and bays.
Mitigation Action/Project Type	<p>A. Sewer Subregion: Mastic/Shirley/Mastic Beach, Protecting the Forge River and Great South Bay</p> <hr/> <p>Sewering would result in a significant improvement in shallow groundwater quality, and in the quality of groundwater baseflow to the Forge River. The total nitrogen load in the study area to the Forge River watershed is estimated to be approximately 730 pounds per day, which would be reduced by two-thirds by the introduction of sewerage 10,500 lots in Mastic/Shirley/Mastic Beach.</p> <p>B. Sewer Subregion: Deer Park, North Babylon, Wyandanch and West Islip, Denitrifying the Carlls River and Great South Bay</p> <hr/> <p>As these parcels sit in proximity to the Southwest Sewer District, which has provided widespread mitigation of contaminants, connecting these 6,000 parcels would remove 495 pounds/day of nitrogen loading to Carlls River and Great South Bay, thus reinvigorating the marshes and embayments and enhancing wave attenuation. This estuary has been declared an impaired water body, and suffers from low dissolved oxygen, recurring harmful algal</p>





	<p>blooms, and other nitrogen-related threats such as wetlands degradation, and reduction of storm surge buffering.</p> <p>In addition, during a catastrophic storm event, there is a high risk of failure of these onsite systems, including potential for direct discharge to the ground and surface waters and possible total collapse. If not addressed, public exposure to pathogen-bearing raw sewage could result that would flow into the South Shore Estuary.</p> <p>C. Sewer Subregion: Oakdale, Denitrifying the Connetquot River, Nicoll Bay and Great South Bay</p> <hr/> <p>According to information obtained from FEMA, the number of damage claims in Oakdale exceeded 801 per square mile, the highest density breakdown category identified by FEMA. Through Governor Cuomo’s NY Rising Community Reconstruction Program, the Oakdale West Sayville communities have identified the need to protect the environment and human health from wastewater pollution.ⁱ The Town of Islip has recently initiated a planning study of sewerage in the Oakdale and West Sayville communities. Suffolk County has preliminarily identified 2,000 lots in this area for potential sewerage, removing 165 pounds of nitrogen/day.</p>
Objectives Met	<p>Governor Andrew Cuomo’s NYS 2100 Commission report outlines goals to increase coastal resiliency:</p> <ol style="list-style-type: none"> 1. Protect coastal communities; 2. Reduce inland vulnerability to extreme weather events; and 3. Strengthen wastewater infrastructure. <p>The report concluded that, “tidal wetlands can protect coastal communities from storm damage by reducing wave energy and amplitude, slowing water velocity, and stabilizing the shoreline through sediment deposition. More than half of normal wave energy is dissipated within the first three meters of marsh vegetation such as cord grass. In addition, given sufficient sediment deposition, wetlands are able to build elevation in response to sea-level rise, providing a buffer against climate change and coastal submergence.”</p> <p>The Governor’s report is supported by researchers that have concluded that coastal vegetation (wetlands, marshlands and the sea grass that surrounds it) serves as a natural defense system against storm surges and waves along coastal regions, reducing wave height by 80% over short distances. Waves lose energy as they travel through vegetation.^{ii, iii, iv}</p>
Applies to existing structures/infrastructure, future, or not applicable	Yes
Benefits (losses avoided)	Recent Damages: Residential and Commercial parcels located in Deer Park, North Babylon, and Wyandanch not impacted by flooding but contributing to nitrogen loading in the Carlls River and Great South Bay 6,000





	<p>Babylon non-vacant residential and commercial parcels impacted by the Sandy Storm surge that will benefit from the sewerage of Deer Park, North Babylon, and Wyandanch to help reduce nitrogen in groundwater and surface water to increase the resiliency of wetlands and seagrass beds to protect the commercial and residential parcels in Babylon from future storm surges <u>10,273</u></p> <p>West Islip non-vacant residential and commercial parcels impacted by the Sandy Storm surge that will benefit from the sewerage of Deer Park, North Babylon, and Wyandanch to help reduce nitrogen in groundwater and surface water to increase the resiliency of wetlands and seagrass beds to protect the commercial and residential parcels in Babylon from future storm surges <u>1,522</u></p> <p><u>Oakdale:</u> Residential parcels and on-site sewage disposal systems impacted by flooding <u>1,234</u></p> <p>Commercial parcels and on-site sewage disposal systems impacted by flooding <u>7</u></p> <p>Residential and commercial parcels not impacted by flooding but contributing to nitrogen loading <u>759</u></p> <p><u>Mastic, Mastic Beach, and Shirley</u></p> <p>Mastic, Mastic Beach, and Shirley Residential parcels and on-site sewage disposal systems impacted by flooding <u>1,829</u></p> <p>Mastic, Mastic Beach, and Shirley Commercial parcels and on-site sewage disposal systems impacted by flooding <u>16</u></p> <p>Mastic, Mastic Beach, and Shirley Residential parcels not impacted by flooding but contributing to nitrogen loading <u>8,349</u></p> <p>Mastic, Mastic Beach, and Shirley Commercial parcels not impacted by flooding but contributing to nitrogen loading <u>306</u></p>
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County
Local Planning Mechanism	Concurrence with New York Rising
Potential Funding Sources	Sources may include federal, state and local sources.
Timeline for Completion	2019, pending funding
Reporting on Progress	





**Date of Status Report/
Report of Progress**

Date:
Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

SCEDP- 4

Mitigation Action/Initiative:

A pilot program to upgrade wastewater infrastructure in flood prone coastal communities in Suffolk County

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)	High	

ⁱ Accessed at: http://stormrecovery.ny.gov/sites/default/files/crp/community/documents/oakdale_west_sayville_conceptual_plan.pdf page 34

ⁱⁱ Anderson ME, McKee Smith J, Bryant DB, and McComas, RGW. (Sept 2013), "Laboratory Studies of Wave Attenuation through Artificial and Real Vegetation" USACE, "It is generally acknowledged that vegetated coastal features such as wetlands can reduce the effects of surge, waves, and tsunami propagation."

ⁱⁱⁱ Jadhav, Ranjit and Chen, Qin, "Field Investigation of Wave Dissipation Over Salt Marsh Vegetation During Tropical Cyclone" Coastal Engineering, 2012

^{iv} Ysebaert, T, Yang, S.,Zhang, L., He, Q., Bouma, T., Herman, P. "Wave Attenuation by Two Contrasting Ecosystem Engineering Salt Marsh Macrophytes in the Intertidal Pioneer Zone" Society of Wetland Scientists 20 Sept 2011





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: Suffolk County Department of Economic Development and Planning
Number: Sandy HMGP LOI #: 1291
Mitigation Action/Initiative: Tidal Wetland Restoration at Smith Point County Park to Improve Protection against Flooding and Storm Damage

Assessing the Risk	
Hazard(s) addressed:	Coastal Erosion, Flood, Hurricane, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	<p>Smith Point County Park is located between the Fire Island National Seashore and the hamlets of Shirley and Mastic Beach, NY. This area was heavily affected by Super Storm Sandy in October 2012. The degraded conditions of the tidal marshes within the County Park are not the best to ensure the widely recognized socioeconomical and environmental services from a healthy tidal marsh in regards to reduction of storm damage and flooding risks to the surrounding populated area as well to the coastal environment. Currently, these marshes are being subject to erosive processes, pan formation, and degradation of the network of linear mosquito ditches, therefore the buffering capacity of these marshes against flooding and high intensity storm has been undermined.</p> <p>The damage caused by Super Storm Sandy in October of 2012, resulted on high costs on private homes, infrastructure, public services, affected evacuation routes, and the long lasting recovery of the local economy and houses. The estimated inundation over the Mastic Beach area was 3.9 feet with an estimated 5.68 feet of storm tide. Therefore, In order to improve protection against storm damage and flooding, it is necessary to ensure that tidal marshes are in proper conditions to support and diminish the effect of high intensity storms. The restoration of the tidal marshes within Smith Point County Park will enhance the natural protection against storm damage and flooding to the already affected population of the hamlets of Shirley and Mastic Beach, and it will also mitigate the costs and the extent of future damages from possible storms.</p>
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Tidal Wetland Restoration at Smith Point County Park to Improve Protection against Flooding and Storm Damage to surrounding communities
	2. No action
Action/Project Intended for Implementation	
Description of Selected Action/Project	This proposal is for a tidal wetland restoration project within Smith Point County Park North for the enhancement of marsh functions for coastal





	<p>protection against flood and storm damage. Restoration of proper sedimentation processes will allow the marsh to be sustainable and resilient to sea level rise, acting as a natural buffer to neighboring communities. The project area is owned by the County of Suffolk, NY - Parks Department and protected in perpetuity as natural parkland. The wetland is strategically located between the Fire Island National Seashore and the hamlets of Shirley and Mastic Beach, NY. This area was heavily affected by Super Storm Sandy in October 2012. The project will use Integrated Marsh Management practices to address the degraded network of existing linear mosquito ditches through establishment of naturalized hydrologic features including tidal channels, ponds, and tidal connectors. The new naturalized design seeks to: (1) improve tidal regime and flux between estuary and marsh, (2) enhance sedimentation processes for proper marsh accretion and resilience to sea level rise and enhance the marsh buffer action against high intensity storms and flooding, (3) provide high quality habitat for salt marsh biota while also enabling biological control of larval salt marsh mosquitoes and of the invasive common reed <i>Phragmites australis</i>, and, (4) to increase public awareness of the estuarine environmental issues by creating an interpretive trail. The expected beneficial outcomes for salt marsh socioeconomic and environmental services include: improved sedimentation processes leading to marsh sustainability and resilience to sea level rise, improved protection against high intensity storms and reduction of flooding risk to the surrounded areas, and restored habitat for estuarine and marsh biology. The proposed project addresses restoration needs identified by the United States Army Corps of Engineers as a strategic area for storm and flooding damage protection, and also by the New York State South Shore Estuary Reserve Comprehensive Management Plan to improve water quality and living resources. The project will increase coordination among agencies, creating public awareness of environmental issues, and will improve the cost-effectiveness of restoration efforts.</p>
Mitigation Action/Project Type	Natural Systems Protection (NRP)
Objectives Met	1,3,5,10,15.
Applies to existing structures/infrastructure, future, or not applicable	Not Applicable
Benefits (losses avoided)	The Village of Mastic Beach indicated that recent Damages caused by Super Storm Sandy on October 29, 2012 were about \$40,000,000
Estimated Cost	\$ 534,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Suffolk County Department of Economic Development and Planning; Frank Castelli, Environmental Projects Coordinator
Local Planning Mechanism	Suffolk County Departments of Economic Development and Planning and Public Works
Potential Funding Sources	"HMGP grant funding for \$400,000, and Local Match for \$134,000"
Timeline for Completion	Short
Reporting on Progress	





**Date of Status Report/
Report of Progress**

Date: N/A
Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 1291
Mitigation Action/Initiative: Tidal Wetland Restoration at Smith Point County Park to Improve Protection against Flooding and Storm Damage

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Any mitigation in tidal flooding will protect valuable property
Cost-Effectiveness	1	Wetlands restoration is far less costly than storm surge flooding damage.
Technical	0	
Political	0	
Legal	0	
Fiscal	1	Wetlands restoration is far less costly than storm surge flooding damage.
Environmental	1	A fully functional restored wetlands has multiple environmental benefits
Social	1	Restoration will enhance tidal wetland services as buffer against flooding and storm damage on County park land adjacent to a highly populated area
Administrative	0	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	NYS DEC supports this type of wetlands restoration
Other Community Objectives	1	Project to take place on park land, thus protected in perpetuity to offer environmental services to the community and local habitats. Recreation, fishing, educational activities, protection against local sea level rise, etc.
Total	8	
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: Suffolk County

Number: _____

Mitigation Action/Initiative: Build Local Floodplain Management and Disaster Recovery Capabilities

Assessing the Risk	
Hazard(s) addressed:	Coastal Erosion, Flooding, Hurricane, Nor'Easters, Shallow Groundwater
Specific problem being mitigated:	Federal policies regarding floodplain management and disaster recovery continue to evolve. In response, local government officials are being tasked with responsibilities related to these areas, which are outside their traditional scope of work and knowledge.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action
	2. Increased Public and Intergovernmental messaging regarding available subject matter materials
	3. Training seminars for local floodplain managers and disaster recovery staff
Action/Project Intended for Implementation	
Description of Selected Action/Project	Facilitate Workshops and Seminars to build local capabilities in floodplain management and disaster recovery: <ul style="list-style-type: none"> • NFIP Community Rating System (CRS) • Benefit-Cost Analysis (BCA) • Substantial Damage Estimating (SDE) • NFIP Elevation Certificates (EC) • Certified Floodplain Manager (CFM) Training and Certification
Mitigation Action/Project Type	Education and Awareness Programs (EAP)
Objectives Met	3, 4, 5, 7, 9, 14
Applies to existing structures/infrastructure, future, or not applicable	Existing and Future
Benefits (losses avoided)	Recent Damages: \$1,000,000,000
Estimated Cost	Medium (\$10,000 - \$100,000)
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Dept of Fire, Rescue and Emergency Services





Local Planning Mechanism	
Potential Funding Sources	Flood Mitigation Assistance (FMA)
Timeline for Completion	Short (1-5 Years)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Mitigation Action/Initiative: Build Local Floodplain Management and Disaster Recovery Capabilities

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Training local floodplain managers and disaster recovery officials will drastically reduce threat to life safety from all natural and man-made disasters.
Property Protection	1	Training local floodplain managers and disaster recovery officials will drastically reduce threat to improved property from all natural and man-made disasters.
Cost-Effectiveness	1	Training local floodplain managers in potential cost-saving policies can lead to the implementation of these policies, which would more than recoup the implementation costs.
Technical	1	Training local floodplain managers and disaster recovery officials is technically feasible and a long-term solution.
Political	1	Local elected officials support the action.
Legal	1	New York State has the authority to implement the action.
Fiscal	1	The action can be funded through existing training programs provided by State and Federal authorities.
Environmental	1	Training local floodplain managers will comply with environmental regulations and increase awareness to potential impacts from hazard events.
Social	1	Training local floodplain managers and disaster recovery officials would have no adverse effects on any particular demographic or population.
Administrative	0	Training local floodplain managers will require coordination with appropriate State and Federal authorities.
Multi-Hazard	1	The action addresses the impacts of Hurricanes, Nor'Easters, Coastal Erosion, and Flooding.
Timeline	1	The action can be completed in 5 years or less.
Agency Champion	1	The action has strong support among the staff and administration.
Other Community Objectives	1	Multiple local municipalities reported a desire for and support of training local floodplain managers and disaster recovery officials.
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: Suffolk County Dept of Fire, Rescue and Emergency Services
Number: _____
Mitigation Action/Initiative: Jurisdictional Knowledge of Mitigation Needs of Property Owners

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Private property owners have needs for mitigation initiatives that are not known at the Local Jurisdictional level. Their problems and potential solutions are presented to NYS OEM and FEMA through Individual Assistance programs and other methods, such as NY Rising, etc., as were available during the aftermath of Sandy. The information collected from all of the Disaster related programs was not fully known at the local level where the thorough knowledge and understanding of these issues could lead to potential solutions through achievable mitigation actions. A methodology to share this state and federal knowledge and feed it back to the local jurisdiction is needed.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action – continued inefficiency in enacting mitigation initiatives. 2. Private Property owner investigation – not practical for individuals to pursue all potential sources. 3. Individual Jurisdiction investigation – not practical to investigate all sources of funding for all homeowner needs
Action/Project Intended for Implementation	
Description of Selected Action/Project	A cooperative methodology needs to be established to share information between individual property owners, State OEM, Federal Agencies and local jurisdictions on needed mitigation initiatives following disasters. This can be accomplished through a sharing of database information that is collected from involved agencies, such as was done and made available by the NYS OEM contractor Adjusters International (AI), for all Letters of Intent (LOIs) submitted as a result of Hurricane Sandy. This informational flow needs to be identified in Planning Documents and/or Operating Procedures to ensure that it will continue through future events. The assistance of a consultant may be beneficial in this effort.
Mitigation Action/Project Type	Local Plans and Regulations (LPR)
Objectives Met	1,3,7, and 14
Applies to existing structures/infrastructure, future, or not applicable	N/A
Benefits (losses avoided)	The elimination of duplicate applications to different agencies or levels of authority for the same issue, will eliminate subsequent actions and responses. It will also streamline recovery efforts, help eliminate potential





	omissions and help property owners achieve lasting mitigation initiatives.
Estimated Cost	Medium - \$10,000 to \$100,000
Priority*	Medium
Plan for Implementation	
Responsible Organization	Suffolk County Department of Fire, Rescue and Emergency Services working with Local Jurisdictions in cooperation with State and Federal Agencies. FRES Commissioner Joseph Williams, Tel # 631-852-4900
Local Planning Mechanism	County, Local, State and Federal Cooperative Effort
Potential Funding Sources	HMGP with required local match, other Federal Grant Program (i.e. UASI, SHSP, etc.), Operating Budgets or Operating Budgets for local match
Timeline for Completion	Short Term – within 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Mitigation Action/Initiative:

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	Neutral
Property Protection	1	Problem areas and issues will be more readily known
Cost-Effectiveness	1	Low cost to implement – data sharing – benefits will be achieved
Technical	1	Feasible and will improve efficiency
Political	1	Improved service to the private property owner will be widely supported
Legal	1	Yes – Authority exists
Fiscal	0	Neutral
Environmental	0	Neutral
Social	0	Neutral
Administrative	1	Database product to improve efficiency
Multi-Hazard	0	Neutral
Timeline	1	Short timeline – within 5 years
Agency Champion	1	Suffolk County and Local Jurisdictions
Other Community Objectives	0	Neutral
Total	8	
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: Suffolk County Dept of Fire, Rescue and Emergency Services
Number: _____
Mitigation Action/Initiative: County-Wide Debris Management Plan

Assessing the Risk	
Hazard(s) addressed:	All except Drought, Shallow Groundwater, and Groundwater Contamination
Specific problem being mitigated:	The lack of an organized and defined county-wide debris management plan was evident in disposing of massive amounts of vegetative, construction and demolition, household and hazardous material debris following Hurricane Sandy.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action – leaves all municipalities on their own to handle debris and compete for available resources 2. Sole Suffolk County Plan - does not address and coordinate county-wide needs 3. Independent Jurisdictional Plans – no county-wide coordination
Action/Project Intended for Implementation	
Description of Selected Action/Project	Using the highly successful format established to produce the county-wide Hazard Mitigation Plan, all ten (10) towns, all thirty-three (33) Villages and both Tribal Nations would participate in the development of a County-Wide Plan to dispose of debris following a widespread disaster. The assistance of a consultant in this effort may be beneficial.
Mitigation Action/Project Type	Local Plans and Regulations (LPR)
Objectives Met	3,4,5,7,13,14 & 15
Applies to existing structures/infrastructure, future, or not applicable	N/A
Benefits (losses avoided)	A coordinated county-wide plan will minimize loss of functions following a disaster, maximize the efficiency of recovery efforts, eliminate duplication of resources and reduce overall costs by effectively disposing of debris in the shortest and most cost effective manner. The County of Suffolk spent approximately \$26 million in debris removal costs following Hurricane Sandy.
Estimated Cost	High – Greater than \$100,000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Departments of Fire, Rescue and Emergency Services (FRES) and Public Works (DPW)





	FRES Commissioner Joseph Williams, Tel # 631-852-4900
Local Planning Mechanism	County-Wide Cooperative Effort
Potential Funding Sources	HMGP with required local match, other Federal Grant Program (i.e. UASI, SHSP, etc.), Operating Budgets or Operating Budgets for local match
Timeline for Completion	Short - 1 to 5 years
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Mitigation Action/Initiative:

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Effective debris removal can save time in recovery efforts, save lives, and help prevent compounding injuries
Property Protection	1	Effective debris removal will reduce damage to infrastructure by defining limiting criteria
Cost-Effectiveness	1	Benefits will reduce time of recovery efforts, effectively use limited resources, streamline the process and reduce overall costs
Technical	1	Use of existing multi-jurisdictional development approach and effective measures learned through Sandy recovery will facilitate Plan development. The assistance of a consultant may be beneficial in this effort.
Political	1	Widespread County support exists for the development of a multi-jurisdictional Plan
Legal	0	Neutral
Fiscal	1	Funding possible through grants and existing operating budgets for local match
Environmental	1	DEC and regulatory involvement will ensure positive results
Social	0	Neutral
Administrative	1	Regulating Agencies, SC and Local Jurisdictions have the personnel and capabilities to implement
Multi-Hazard	1	By definition – this will be a multi-hazard plan to address debris removal
Timeline	1	Effort can be completed within 5 years
Agency Champion	1	Hurricane Sandy debris removal results confirmed there is much support throughout the County (countywide and local) for this initiative
Other Community Objectives	1	This initiative supports many identified needs that became evident during and after Sandy
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: Suffolk County Fire, Rescue and Emergency Services
Number: _____
Mitigation Action/Initiative: Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County

Assessing the Risk	
Hazard(s) addressed:	Earthquake
Specific problem being mitigated:	The occurrence of earthquakes affecting Suffolk County is rare. Because of this, the awareness of earthquakes and the extent of potential damages are largely unknown to many jurisdictions that can benefit by an assessment.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action – continued vulnerability
	2. Jurisdictional self-awareness program – not consistent
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Suffolk County would like to facilitate and participate in a Multi-Jurisdictional Seismic Safety Committee with the ten Towns in the County to assess local earthquake awareness, evaluate existing conditions versus current standards, identify areas for improvement and provide recommendations as needed. The goal of the Committee will be to provide annual improvements and education in the area of earthquake preparedness. The assistance of a consultant may be beneficial for comprehensive assessments.
Mitigation Action/Project Type	Local Plans and Regulations (LPR) combined with Education and Awareness Program (EAP)
Objectives Met	1,3,4,7,14,&16
Applies to existing structures/infrastructure, future, or not applicable	Existing and New
Benefits (losses avoided)	Improving earthquake awareness and preparedness will have positive benefits over the catastrophic losses an earthquake could cause.
Estimated Cost	Low to Medium
Priority*	High / Medium
Plan for Implementation	
Responsible Organization	SC FRES with cooperation from SC Departments FRES Commissioner Joseph Williams, Tel # 631-852-4900
Local Planning Mechanism	Multi-Jurisdictional Cooperative Effort
Potential Funding Sources	HMGP with required local match, other Federal Grant Program (i.e. UASI, SHSP, etc.), Operating Budgets or Operating Budgets for local match





Timeline for Completion	Short (1 to 5 years)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Mitigation Action/Initiative:

Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Changes to building codes improve safety
Property Protection	1	Changes to building codes improve property protection
Cost-Effectiveness	1	Evaluations and recommendations cost effective
Technical	1	Jurisdictions have Technical capabilities in Building Depts and Code enforcement staff
Political	1	Safety and Education issues are widely supported
Legal	0	Neutral – State has standards
Fiscal	1	Can be funded through grants and operating budgets
Environmental	0	Neutral
Social	0	Neutral
Administrative	1	Jurisdictions have Technical capabilities in Building Depts and Code enforcement staff
Multi-Hazard	0	Resulting preparedness mainly associated with earthquakes but can have positive effects on other hazard preparedness
Timeline	1	Can be implemented within Short Term (5 years) but initiative is seen as an continuous improvement and preparedness
Agency Champion	1	Capabilities exist within jurisdictions but consultant assistance may be beneficial
Other Community Objectives	0	Neutral
Total	9	
Priority (High/Med/Low)	High/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: Suffolk County Dept of Fire, Rescue and Emergency Services
Number: _____
Mitigation Action/Initiative: Alignment of Mitigation Initiatives through All Levels of Authority

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Mitigation initiatives at a Local or County Level may not align with those at State or Federal Level due to conflicting long term goals or programs. An example of this might be the need in Suffolk County and south shore communities to replenish the sand and rebuild the protective dune system on barrier beaches. This need is, in some cases, opposed to the environmental issues of proper sand sourcing and protecting seasonal wildlife. A similar example could be in the closing of an existing barrier island breach where many varied interests have input into the completion of a mitigation initiative. The result of conflicts like these is the delay in implementing mitigation initiatives to protect the life and property of residents in coastal communities.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action – Opposing goals delay or prevent implementation of important initiatives 2. Individual Jurisdictional investigation – inefficient and will not lead to multi-jurisdictional solution 3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	The goals and objectives that drive local mitigation initiatives need to be aligned with State and Federal programs / requirements. This can be accomplished through the preparation of a “petition” type of document, which shows the support of local jurisdictions and responsible county and local officials. This petition would be sent to the appropriate State and Federal authorities /agencies having control of the conflicting programs to foster cooperative and joint solutions.
Mitigation Action/Project Type	Local Plans and Regulations (LPR)
Objectives Met	1,3,5,7,8,14,15,&16
Applies to existing structures/infrastructure, future, or not applicable	Existing and New
Benefits (losses avoided)	Reduction of time in completing mitigation initiatives by streamlining the approval cycles
Estimated Cost	Low (< \$10,000)
Priority*	High





Plan for Implementation	
Responsible Organization	Suffolk County Department of Fire, Rescue and Emergency Services FRES Commissioner Joseph Williams, Tel # 631-852-4900
Local Planning Mechanism	County-wide cooperative effort
Potential Funding Sources	HMGP with required local match, other Federal Grant Program (i.e. UASI, SHSP, etc.), Operating Budgets or Operating Budgets for local match
Timeline for Completion	Short (1 to 5 years)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number:

Mitigation Action/Initiative:

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Faster implementation of mitigation initiatives
Property Protection	1	Faster implementation of mitigation initiatives
Cost-Effectiveness	1	Faster implementation of mitigation initiatives
Technical	1	Capabilities exist to prepare “petition” outlining issues
Political	1	Faster implementation of mitigation initiatives would be widely accepted
Legal	1	State controls State regulations, but can only support initiative on Federal level
Fiscal	1	Yes – capability exists to fund
Environmental	1	All interests will be recognized in cooperative resolution
Social	0	Neutral
Administrative	1	Yes capabilities exist
Multi-Hazard	1	Yes – has applicability across different hazards
Timeline	1	Can be accomplished within 5 years
Agency Champion	1	SC FRES with support from State and local jurisdictions
Other Community Objectives	1	This initiative can have broad benefits
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: Suffolk County Dept of Fire, Rescue and Emergency Services

Number: Sandy HMGP LOI #: 931

Mitigation Action/Initiative: Mitigation Education for Natural Disasters (MEND)

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Two independent surveys of Suffolk County residents provide clear indication of the significant need for public education about hurricanes and hazards in general. Dangerously high percentages of Suffolk's 1.5 million residents reported an ignorance or indifference to preparedness topics discussed. Survey results highlight a lack of familiarity with Hurricane Evacuation Zones, a lack of personal evacuation planning, as well as low intent of evacuating, even when under mandatory orders. Perceived vulnerability to consequences of natural hazards was shown to be underestimated, while a lack of personal preparedness was reported at very high rates. This is most alarming when considered alongside the high percentage of residents who feel prepared for the probable impacts of natural hazard events because they have experienced one or more of these events.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No Action 2. Update Existing Website 3. Community Relations Outreach Program
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>The proposed project is a multi-year public outreach campaign focused on educating Suffolk County's 1.5 million residents on the hazards they face, how they can prepare, and how to mitigate probable impacts. This educational program will utilize print and digital media as well as community meetings to provide preparedness information to our target audience of all County residents.</p> <p>Topics to be addressed include, but are not limited to:</p> <ul style="list-style-type: none"> • What is Hazard Mitigation • What can be done to mitigate disasters • How mitigation initiatives can be implemented • How mitigation initiatives can be funded • National Flood Insurance Program (NFIP) • Community Rating System (CRS) and discounts to NFIP premiums • How homeowners can prepare for a flooding or disaster event • What precautions can be taken • Insurance Industry subject matter • Homeowners Insurance coverage • What to expect in the initial days following a disaster • How to be self-sufficient immediately following a disaster





	<ul style="list-style-type: none"> • FEMA programs for Public and Individual Assistance • National Disaster Recovery Framework • Recovery Support Functions <p>This information and more will be communicated during live presentations, on a public website, across a broad social media presence, and in printed materials. An informational website will provide details on the topics listed as well as host copies of slide presentations and recordings of live community meetings. Other website functionality will include social network feeds as well as links to the Suffolk County Shelter Locator and Flood Zone map. Social media outlets such as Facebook, Twitter, Google+, YouTube, and Instagram will be utilized to regularly engage as much of our target audience as possible. Educational pamphlets will be mailed directly to residents and made available as handouts at community meetings. These meetings, conducted throughout Suffolk County, will feature presentations by subject matter experts such as elected officials, emergency management personnel, mitigation experts, NFIP experts, community leaders, and insurance industry representatives.</p>
Mitigation Action/Project Type	Education and Awareness Program (EAP)
Objectives Met	1, 3, 7, 9, and 14
Applies to existing structures/infrastructure, future, or not applicable	Existing and Future
Benefits (losses avoided)	Recent Damages: \$1,000,000,000
Estimated Cost	High (> \$100,000)
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Dept of Fire, Rescue and Emergency Services: Joseph F. Williams, Commissioner, Suffolk County Dept of Fire, Rescue and Emergency Services
Local Planning Mechanism	
Potential Funding Sources	"HMGP; <u>25%</u> for Local Match"
Timeline for Completion	Short Term (1-5 Years)
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 #: 931

Mitigation Action/Initiative: Mitigation Education for Natural Disasters

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Increased public awareness of necessary personal preparedness and possible mitigation measures will drastically reduce threat to life safety from all natural and man-made disasters.
Property Protection	1	Increased public awareness of necessary personal preparedness and possible mitigation measures will drastically reduce threat to improved property from all natural and man-made disasters.
Cost-Effectiveness	1	Implementation costs for a Public Education Campaign reduce disaster response and recovery costs for future hazard events at a rate greater than the implementation cost.
Technical	1	Increased public awareness to potential hazards and mitigation measures is a long-term solution. A Public Education Campaign to raise awareness is technically feasible at the county level.
Political	1	Significant local political support exists for this Public Education Campaign.
Legal	1	New York State has the authority to implement Public Education Campaigns.
Fiscal	0	The project would require funding from outside sources, such as grants.
Environmental	1	The project will promote increased awareness to the environmental impacts of potential hazard events, as well as regulations in place to protect environmental resources.
Social	1	A Public Education Campaign would have no adverse effects on any particular demographic or population.
Administrative	0	Suffolk County will supply personnel to manage and implement the project with possible assistance from a contracted marketing firm.
Multi-Hazard	1	A Public Education Campaign would address all potential hazards listed.
Timeline	1	The project can be completed in 5 years or less.
Agency Champion	1	The project has strong support among the staff and administration.
Other Community Objectives	1	Multiple local municipalities reported a desire for and support of a Public Education Campaign.
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: Suffolk County Dept. of Fire, Rescue and Emergency Services
Number: SCFRES-7
Mitigation Action/Initiative: County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricane, Nor'easters, Severe Storms, Severe Winter Storms, Wildfire, Coastal Erosion, and Shallow Groundwater
Specific problem being mitigated:	The need to develop plans for short and long term Temporary Housing sites and locations, as well as areas to relocate flood vulnerable housing, within Suffolk County, its Towns and Villages and potentially across multi-jurisdictional borders.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Do nothing – don't plan – continued issue following disasters
	2. Independent jurisdictional planning effort – results would be inefficient and incomplete
	3.
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>A County-wide effort to identify potential sites for placement of temporary housing for residents displaced by disasters, as well as the identification of sites suitable for the relocation of houses out of the floodplain (acquisition, relocation).</p> <p>The Suffolk County Department of Fire, Rescue and Emergency Services in conjunction with other SC Departments will lead a countywide effort, including all municipalities, to identify potential sites for the placement of temporary housing units to house residents displaced by disaster; sites within the community suitable for relocation houses out of the floodplain, or building new houses once properties in the floodplain are razed. To build on ongoing County and local efforts in this regard, all communities will be surveyed to identify potential sites, including any pre-disaster actions that may be required to make them viable for these purposes. In the case of municipalities that are fully built-out, or otherwise cannot identify suitable areas, that shall be noted and considerations shall be made regarding suitable areas in neighboring communities, or otherwise throughout the County. This planning project shall be further supported by the efforts of those Suffolk County communities participating in the New York Rising Community Redevelopment program, which may have identified suitable sites either within or without their municipal boundaries.</p> <p>It is noted that Suffolk County is the logical lead and champion for this comprehensive planning study and effort. The County provides a wide range of services to the 10 towns and 33 villages on a regular basis. This</p>





	includes, but is not limited to, technical assistance, research, planning, engineering, operations, mapping, and consultation services. They also handle over 2,000 municipal zoning and subdivision referrals a year. Further, they continue to provide services to the Suffolk County Planning Commission, the Council on Environmental Quality, the Farmland Committee, the Agricultural and Farmland Protection Board, the Aquaculture Lease Board, as well as many ad hoc committees as directed by the County Executive and the Legislature. The County also administers the Environmental Trust Review Board, the Sewer Infrastructure Committee, and provides support to the newly created Suffolk County Landbank.
Mitigation Action/Project Type	LPR and SIP
Objectives Met	2, 3, 6 & 14
Applies to existing structures/infrastructure, future, or not applicable	Existing and future
Benefits (losses avoided)	Planning for temporary housing sites will shorten schedules and reduce costs of both short and long term housing needs that are used in emergencies and are obtained in a slow and complicated process at premium prices.
Estimated Cost	Medium (\$10,000 - \$100,000)
Priority*	High
Plan for Implementation	
Responsible Organization	SC FRES in conjunction with other SC Departments having specific expertise in required areas of housing and planning (i.e. Real Estate, Social Services, Economic Development and Planning, etc.) SC FRES Commissioner Joseph Williams, Tel. # 631-852-4900
Local Planning Mechanism	County-wide multi-jurisdictional effort, integrating with existing and ongoing land use and comprehensive plans and studies.
Potential Funding Sources	HMGP with required local match, other federal grant programs (PDM, UASI, SHSP, etc.) Operating Budgets or Operating Budgets for Local Match.
Timeline for Completion	Short (1 to 5 years)
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)





Prioritization

Number: SCFRES-7

Mitigation Action/Initiative: County-Wide Housing Location/Relocation Planning Initiative for Disaster Displaced Residents and Structures

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Safe Housing
Property Protection	0	
Cost-Effectiveness	1	Cost savings for pre-planning sites
Technical	1	Short term - feasible
Political	1	Will receive widespread political support
Legal	1	Planning effort - can be implemented
Fiscal	1	Planning effort – can be funded
Environmental	0	
Social	1	No negative effects seen
Administrative	1	Yes – capabilities exist
Multi-Hazard	1	Effort associated with multiple hazards
Timeline	1	Planning effort can be done in short term (less than five years)
Agency Champion	1	Widespread support throughout the County
Other Community Objectives	1	Aligns with numerous objectives at County and local levels
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: Suffolk County
 Number: SCParks-1
 Mitigation Action/Initiative: Meschutt Beach County Park

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, hurricane, nor'easters, severe storms, severe winter storm
Specific problem being mitigated:	Beachfront has eroded away, causing protective berm to be subjected to greater threats from storm activity and erosion, which places greater threat to the infrastructure (concession, parking, playground) and facilities.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Using dredged material to nourish and restore beach.
	2. Truck sand annually to nourish protective berm – not a long-term solution and not cost-effective over long term.
	3. No action – this does not resolve the problem or protect the property.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Develop "engineered beach" plan and nourish beach with dredging back-pass from Great Peconic Bay
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP); Natural Systems Protection (NRP)
Objectives Met	15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: DR1899, PW1251 - \$21,425; DR1957, PW159 - \$96,850; DR4085, PW1390 - \$165,178; DR4085, PW626 - \$210,843
Estimated Cost	High → estimates in the \$250,000 range
Priority*	High
Plan for Implementation	
Responsible Organization	Project to be completed by DPW staff with assistance from Parks staff
Local Planning Mechanism	To be completed by County staff or through RFP.
Potential Funding Sources	HMGP;CP 7163 (or DPW capital program) for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project: Preliminary discussions with DPW Waterways to utilize DPW staff to dredge mouth of Shinnecock Canal on bayside to nourish the beach front at Meschutt to "engineered"





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





Prioritization

Number: SC-1

Mitigation Action/Initiative: Meschutt Beach County Park

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Nourishing the beach front will help protect the infrastructure (concession, parking lot, playground, storage building) of the park.
Cost-Effectiveness	1	Nourishment costs are reasonable. The costs of nourishing & maintaining the beach will be cheaper than emergency repairs after a storm event.
Technical	1	The project is technically feasible and may be accomplished with County staff.
Political	1	Meschutt Beach is a popular family beach. Nourishing the beachfront will make it more amenable for users.
Legal	1	The Parks Department owns the property and may maintain it.
Fiscal	1	The Parks Department utilizes CP 7163 for general beach nourishment and the DPW has a Capital Program which may be used for the project.
Environmental	1	Nourishing & restoring the beach will benefit beach fauna and flora.
Social	1	The project would have a beneficial social impact on beach users. There are no negative social impacts associated with the project.
Administrative	1	The Parks Department and DPW have the staff to complete and maintain the project.
Multi-Hazard	1	Nourishing the beach helps protect the beach and infrastructure from hurricanes, severe storms, winter storms, nor'easters, and storm surges.
Timeline	1	The project can be completed in less than 5 years.
Agency Champion	1	Both the Parks Department and DPW are in favor of this project.
Other Community Objectives	1	The project makes the already popular beach more available to users and family-friendly. It can help increase usership which increases revenue.
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: Suffolk County
Number: SCParks - 3
Mitigation Action/Initiative: Orient Point County Park - Infrastructure protection and erosion control measures

Assessing the Risk	
Hazard(s) addressed:	<i>Coastal erosion, hurricane, nor'easters, severe storms, severe winter storm</i>
Specific problem being mitigated:	Infrastructure protection and erosion control measures protect the easternmost "point" of the North Fork against erosion and protect utility infrastructure to Plum Island.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Hardening of shoreline – protects shoreline against hazards 2. No action – does not resolve the vulnerability 3. Remove utility infrastructure – Plum Island facility loses it's utility connections to mainland.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Install rip rap or other shore hardening measures to protect the easternmost "point" of the North Fork against erosion (wave action, storm surge, etc.) and protect utility infrastructure to Plum Island.
Mitigation Action/Project Type	Structure & Infrastructure Protection (SIP)
Objectives Met	15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: damages from Superstorm Sandy were incurred to the utility systems at the point.
Estimated Cost	<i>High</i>
Priority*	<i>High</i>
Plan for Implementation	
Responsible Organization	SC Parks / SC DPW
Local Planning Mechanism	To be completed via RFP process
Potential Funding Sources	HMGP; Capital Budget to be used for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	<i>Date:</i> <i>Progress on Action/Project:</i>





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





Prioritization

Number: SCParks - 3
Mitigation Action/Initiative: Orient Point County Park - Infrastructure protection and erosion control measures

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	Protect critical utility infrastructure delivery to federal facility; protect shoreline.
Cost-Effectiveness	1	Cost of project should protect against repetitive damage repairs
Technical	1	Technically feasible and a long term solution
Political	1	Parks Department is in favor of solution; anticipated support from US DHS
Legal	1	Yes, Parks owned property.
Fiscal	0	N/A
Environmental	0	N/A
Social	0	N/A
Administrative	1	Yes, Department can administratively complete project.
Multi-Hazard	1	Yes, protects shoreline against multiple hazards
Timeline	1	Yes, can be completed within 5 years
Agency Champion	1	Parks Department is in favor of project; anticipated support from US DHS
Other Community Objectives	0	N/A
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: Suffolk County

Number: SCParks - 4

Mitigation Action/Initiative: Indian Island County Park

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, hurricane, nor;easterns, severe storms, severe winter storm
Specific problem being mitigated:	Infrastructure protection & erosion control measures for the "bluff"
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Harden Bluff – protects bluff from wave action, storm surges, etc
	2. Annual Nourishment of Bluff – replenishes lost sand, but does not address or resolve underlying sand loss problem
	3. No action – does not resolve the erosion control problem
Action/Project Intended for Implementation	
Description of Selected Action/Project	Infrastructure protection & erosion control measures for the "bluff"
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP); Natural Systems Protection (NRP)
Objectives Met	15
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: DR1899, PW1094 - \$32,732; DR4085, PW3126 - \$36,018.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	SC Parks and/or DPW
Local Planning Mechanism	Project to be competed via RFP
Potential Funding Sources	HMGP; Capital Budget Program, CP 7009, for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	<i>Date:</i> <i>Progress on Action/Project:</i> DPW has hired consultant to develop erosion control plan to prevent repetitive erosion of bluff, thereby safeguarding the maintained roadway, as well as known Native American burial site.

* Refer to results of Prioritization (page 2)





Prioritization

Number: SCParks - 4

Mitigation Action/Initiative: Indian Island Golf Course

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	Hardening of the bluff will protect infrastructure, Native American burial grounds, and the bluff from erosion and storm activity.
Cost-Effectiveness	1	Project cost will be offset by savings from repairing repetitive damages
Technical	1	The County has the technical expertise to complete the project
Political	1	There is political and public support for this project
Legal	1	The SC Parks Department owns the property
Fiscal	1	The project can be funded with Capital Program CP 7009
Environmental	1	Hardening of the bluff will help mitigate erosion of the bluff, which could silt the adjacent water channel; protects existing land from erosion
Social	0	N/A
Administrative	1	The jurisdiction has the necessary administrative personnel to complete the project.
Multi-Hazard	1	The project protects the property and infrastructure from multiple hazards
Timeline	1	The project can be completed within 5 years
Agency Champion	1	The SC Parks Department and DPW are in favor of protecting this property
Other Community Objectives	1	The project does help negative environmental impacts and protects the parkland from erosion.
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: Suffolk County
Number: SCParks - 5
Mitigation Action/Initiative: Indian Island Golf Course – Erosion Control

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, hurricane, nor'easters, severe storms, severe winter storm
Specific problem being mitigated:	Erosion control measure to protect Hole #5
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Harden / re-engineer shoreline to protect against hazards & erosion. 2. Raise the area – not feasible / cost effective 3. No Action – does not resolve the vulnerability of the area to hazards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Erosion control measure to protect Hole #5
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP)
Objectives Met	15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructures
Benefits (losses avoided)	Recent Damages:
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	SC Parks Department and SC DPW
Local Planning Mechanism	To be completed by RFP
Potential Funding Sources	HMGP; Capital Program, CP 7166, for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	<p>Date:</p> <p>Progress on Action/Project: DPW has hired a consultant to develop an erosion control plan to protect the fairway and green at Hole # 5 - currently being engineered</p>

* Refer to results of Prioritization (page 2)





Prioritization

Number: SCParks - 5

Mitigation Action/Initiative: Indian Island Golf Course – Erosion Control

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	Project will protect golf course infrastructure
Cost-Effectiveness	1	Protects area from repetitive damage; ensures operation of revenue producing golf course
Technical	1	The project is technically feasible
Political	1	There is political and public support for the project
Legal	1	The Department has the legal authority to complete the project
Fiscal	1	The project will be funded through the Capital Program, CP 7166
Environmental	0	There are no discernable negative environmental impacts
Social	0	N/A
Administrative	1	The County has the administrative personnel to complete the project
Multi-Hazard	1	The project will protect the area against multiple hazards
Timeline	1	The project can be completed within 5 years
Agency Champion	1	The Department and the concessionaire are in favor of completing the project
Other Community Objectives	0	N/A
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: Suffolk County
Number: SCParks - 6
Mitigation Action/Initiative: Cedar Point Lighthouse

Assessing the Risk	
Hazard(s) addressed:	Hurricane, nor'easters, severe storms, severe winter storm
Specific problem being mitigated:	Reinforce Structural Integrity to protect against storm activity
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Reinforce Structure – protect against hazard damages; reinforce structural integrity to safeguard for long term use & restoration. 2. Demolition – loss of historic structure and iconic landmark 3. No Action – does nothing to protect structure against hazard damages
Action/Project Intended for Implementation	
Description of Selected Action/Project	Reinforce Structural Integrity to protect against storm activity. Base of lighthouse is solidly protected. Lighthouse tower would be further protected with structural renovations, such as a new, storm-resistant roof, tower improvements, and restoration of the lighthouse lantern (in progress).
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP)
Objectives Met	15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: structure is subject to damage from storm activity; recent damages attributable to weather impacts & general wear & tear.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	SC Parks and DPW will oversee and administer project
Local Planning Mechanism	Project to be completed via RFP process.
Potential Funding Sources	HMGP; Capital Program, CP 7510, to be used for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	<i>Date:</i> <i>Progress on Action/Project:</i>





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





Prioritization

Number: SCParks - 6

Mitigation Action/Initiative: Cedar Point Lighthouse

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	The project will protect the structural integrity of an historic lighthouse
Cost-Effectiveness	1	The project will protect against ongoing maintenance repairs and the potential loss of an historic structure due to hazard damages
Technical	1	The project is technically feasible
Political	1	The Department and a Lighthouse advocacy group support the project
Legal	1	The County owns the property and has the legal authority to make repairs
Fiscal	1	The Parks Department has a Capital Program dedicated to historic structures
Environmental	0	N/A
Social	0	N/A
Administrative	1	The County has the administrative personnel to complete the project
Multi-Hazard	1	The project will protect the structure against multiple hazards
Timeline	1	The project can be completed within 5 years
Agency Champion	1	The Department and a Lighthouse advocacy group are in favor of the project
Other Community Objectives	0	N/A
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: Suffolk County

Number: SCParks - 7

Mitigation Action/Initiative: Long Island Maritime Museum

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, hurricanes, nor'easters, severe storms, severe winter storm
Specific problem being mitigated:	Historic buildings - Raise historic structures (Oyster House, Penny Boat Bldg.) to protect against storm surges.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Raise Structures – protects buildings against effects of hazardous storm activity
	2. Relocate Structures – no feasible relocation site; buildings are part of an overall museum complex concept and are an integral component of the complex.
	3. No Action – structures remain susceptible to storm hazards
Action/Project Intended for Implementation	
Description of Selected Action/Project	Historic buildings - Raise historic structures (Oyster House, Penny Boat Bldg.) to protect against storm surges.
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP)
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: Minor damage to ancillary structures on the L IMM main property. Completing the project will safeguard the now-vulnerable structures against multiple hazards.
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	SC Parks Department and DPW
Local Planning Mechanism	Project would be completed by annual contractors
Potential Funding Sources	HMGP; Capital Program, CP 7165, to be used for Local Match
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	<i>Date:</i> <i>Progress on Action/Project:</i>





Prioritization

Number: SCParks - 7

Mitigation Action/Initiative: Long Island Maritime Museum

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	The project protects these historic structures against loss and damage
Cost-Effectiveness	1	The cost of raising the structures is more effective than rebuilding or relocating the structures.
Technical	1	The project is technically feasible
Political	1	The Parks Department & L IMM support the project.
Legal	1	The County owns the property and structures and can legally perform the project
Fiscal	1	The project can be funded through the Capital Program, CP 7165
Environmental	0	N/A
Social	0	N/A
Administrative	1	The County has sufficient administrative personnel to complete this project
Multi-Hazard	1	The project protects the structures against multiple hazards
Timeline	1	The project can be completed with 5 years
Agency Champion	1	The Department and the L IMM not-for-profit support the project
Other Community Objectives	0	N/A
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: Suffolk County

Number: SCParks - 8

Mitigation Action/Initiative: Timber Point Golf Course – Erosion Control Measures

Assessing the Risk	
Hazard(s) addressed:	Coastal erosion, hurricanes, nor'easters, severe storms, severe winter storm
Specific problem being mitigated:	The areas along the Great South Bay (Blue Course holes 5 & 6 and "Gibraltar") could be protected against erosion and storm surges by the installation of rip rap up the slope of Gibraltar and the installation of a protective, vegetated berm along the fairways of Holes 5 & 6.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Install rip rap & berm – protects infrastructure from multiple hazard activity
	2. Relocate golf course section – not feasible: costs and space limitations
	3. No Action – golf course remains vulnerable to hazards
Action/Project Intended for Implementation	
Description of Selected Action/Project	The areas along the Great South Bay (Blue Course holes 5 & 6 and "Gibraltar") could be protected against erosion and storm surges by the installation of rip rap up the slope of Gibraltar and the installation of a protective, vegetated berm along the fairways of Holes 5 & 6.
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP)
Objectives Met	2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Applies to Existing structures / infrastructure
Benefits (losses avoided)	Recent Damages: DR4020, PW3257 - \$92,970; DR4020, PW3264 - \$10,346; DR4085, PW1470 - \$182,604;
Estimated Cost	Medium
Priority*	High
Plan for Implementation	
Responsible Organization	SC Parks Department and DPW
Local Planning Mechanism	Project to be completed through RFP process
Potential Funding Sources	HMGP; Capital Program, CP 7166, to be used 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: SCParks - 8

Mitigation Action/Initiative: Timber Point Golf Course – Erosion Control Measures

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	N/A
Property Protection	1	Project will protect golf course from multiple hazards and help ensure continuous activity of revenue-generating operations.
Cost-Effectiveness	1	Project costs help safeguard against potential closure due to storm damage; safeguards against revenue loss
Technical	1	The project is technically feasible
Political	1	The Department and the concessionaire support safeguarding the golf course's operation
Legal	1	The County owns the property and has the legal authority to conduct the project.
Fiscal	1	There is an existing Capital Program, CP 7166, that can be used for project.
Environmental	0	N/A
Social	0	N/A
Administrative	1	The County has sufficient administrative personnel to complete the project
Multi-Hazard	1	The project safeguards the property against multiple hazards
Timeline	1	The project can be completed within 5 years
Agency Champion	1	The Parks Department and the concessionaire support the project
Other Community Objectives	0	N/A
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: Suffolk County Parks Department
Number: Sandy HMGP LOI #: 242
Mitigation Action/Initiative: Coindre Hall Boat House Complex Stabilization & Restoration

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor'easters, Severe Storms
Specific problem being mitigated:	A 300' length of granite sea wall protects an early-1900's Boat House, listed on the National Register of Historic Places (1985). Adjacent to the sea wall is a 200' long pier. Recent storm activity over the last several years, specifically Hurricane Irene (DR4020) and Hurricane Sandy (DR4085) caused severe damage & uplift to the pier, making it unsafe for use. Recent storm activities have also de-stabilized the protective sea wall, causing erosion on its landward side and an apparent shifting of the granite block, as well as loss of mortar and pointing in the joints. If the sea wall fails, the historic structure and shoreline is greatly endangered. The Boat House itself is also in need of stabilization due to the stresses caused by recent activity. Investigations by SC DPW Waterways staff estimate repairs and stabilization for the sea wall could be approximately \$1,000,000.00, while repair of the damaged dock is approximately \$500,000.00. There is not a definitive cost for the stabilization of the Boat House, but SC DPW Building Design has secured a proposal to investigate and propose a repair plan for \$200,000.00. Preliminary estimates for work on the Boat House structure could exceed \$2,000,000.00
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. No action: facility remains at risk; unsafe conditions remain as hazard to public 2. Structure Demolition: loss of Historic structures to public 3. Repair sea wall / Demolish remaining structures: loss of Historic structures to public, but sea wall structure safeguards property
Action/Project Intended for Implementation	
Description of Selected Action/Project	<ol style="list-style-type: none"> 1). Repair and re-set the sea wall, including the granite blocks and concrete "return" on the west end of the property; re-point the joints and set new mortar as necessary. Fill erosion areas on landward side of wall. Potentially drive sheet piling behind sea wall to absorb more of the stresses associated with the shoreline stabilization. Repair / replace damaged dock. 2). Stabilize Boat House foundation and structure, as determined by contractor proposal upon completion including fireplace brickwork, chimneys, turret structure, balconies, and main building. <p>These repairs will safeguard the property and structures against storm and wind activities associated with recent events and help preserve an Historic Landmark and "Gold Coast" Estate.</p>
Mitigation Action/Project Type	Structure & Infrastructure Project (SIP)





Objectives Met	2, 16
Applies to existing structures/infrastructure, future, or not applicable	Repairing and safeguarding existing structures.
Benefits (losses avoided)	Recent Damages: 400,000
Estimated Cost	3300000
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Parks Department: Terry Maccarrone, Coordinator of Community Based Programs
Local Planning Mechanism	Capital Budget to be completed by RFP.
Potential Funding Sources	"HMGP; Existing Capital Program for Local Match (CP 7096)"
Timeline for Completion	Short
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: 3/7/2014 Progress on Action/Project: Future Project

* Refer to results of Prioritization (page 2)





Prioritization

Number: Sandy HMGP LOI #: 242

Mitigation Action/Initiative: Coindre Hall Boat House Complex Stabilization & Restoration

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Site is currently dangerous to casual visitors; repairs would safeguard them
Property Protection	1	Restoring and repairing structures will safeguard them against future storm activity. Structures are currently endangered.
Cost-Effectiveness	1	This is an historic site that would otherwise be lost to future generations.
Technical	1	Specialized Historic Preservation contractors have the necessary expertise.
Political	1	The County Executive's Office and the Department support this project.
Legal	1	The site is owned by the Parks Department and is able to make repairs.
Fiscal	1	This site is funded by an existing Capital Budget program (CP 7096)
Environmental	0	
Social	0	
Administrative	1	Parks & DPW staff would oversee the project. Parks staff will maintain.
Multi-Hazard	1	The project protects the structure against multiple hazards.
Timeline	1	The project is scheduled to be completed in less than 5 years.
Agency Champion	1	The Parks Department, Historic Services Division
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: Suffolk County Police Department
Number: SCPD – 1 (Sandy HMGP LOI #: 414)
Mitigation Action/Initiative: Radio Tower Infrastructure Retrofit

Assessing the Risk	
Hazard(s) addressed:	Nor'Easters, Hurricanes, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Retrofit Radio Towers and Microwave System to withstand damage and potential catastrophic failure due to hurricane force winds.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<ol style="list-style-type: none"> 1. Perform only the most immediate mitigation measures, such as roof repairs to reduce likelihood of immediate failures due to water damage. Least costly mitigation measure. Not a viable long-term solution. 2. At sites with two shelters, replace with one shelter. Would require temporary shelter during construction. Install entirely new shelter at Mt. Misery site. Most costly and time consuming solution, when added to other costs of project. Overall project cost would top \$1M. 3. No Action. Towers and shelters will continue to deteriorate. Existing capital projects will only be able to accomplish some work at Yaphank and Hauppauge sites. Will likely incur FCC fines related to lighting.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Project will reduce risk by bringing towers into compliance with the current Telecommunications Industry Association wind standard # 222.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#'s 15 & 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: -physical property damage and loss of function
Estimated Cost	\$708,840
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive, Suffolk County
Local Planning Mechanism	





Potential Funding Sources	“\$531,630 HMGP; _\$177,210_ 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: SCPD – 1 (Sandy HMGP LOI #: 414)

Mitigation Action/Initiative: Radio Tower Infrastructure Retrofit

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Communications towers provide critical emergency services dispatch
Property Protection	1	Project is designed to reduce damage to critical communications infrastructure
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police, FRES and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department

Number: SCPD – 2 (Sandy HMGP LOI #: 417)

Mitigation Action/Initiative: Marine Bureau Fuel Supply Protection Project

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricanes, Nor'Easters
Specific problem being mitigated:	Retrofit both diesel and gasoline fuel pumps to protect pumps from water damage. Marine Bureau fuel pumps are at ground level and vulnerable to damage from flooding. Pumps could be raised or a flood barrier could be installed to protect them from being damaged by floodwaters.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>Alternative # 1 (Relocation):</p> <p>Advantages:</p> <ol style="list-style-type: none"> Moving the dispensers further away from the shore and at a higher elevation will make them even less susceptible to flooding and wave damage than the proposed project. <p>Disadvantages:</p> <ol style="list-style-type: none"> The existing location is the most user-friendly for every-day use. Boats and motor vehicles can utilize them easily. Bigger pumps will be required to pump fuel a greater distance and elevation. Most expensive option.
	<p>Alternative #2 (Fuel Trucks)</p> <p>Advantages:</p> <ol style="list-style-type: none"> This option would be the cheapest alternative assuming that roads into the facility are functional and local delivery companies have fuel. <p>Disadvantages:</p> <ol style="list-style-type: none"> If local roads are heavily damaged and/or local fuel companies do not have fuel, no supply will be available.
	<ol style="list-style-type: none"> No action - Continued vulnerability to flood damage.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Damage to these pumps would severely impact upon the use of Marine Bureau's vessels immediately after a major storm due to the inability to use them. The use of these boats would be an essential component for the county's response. Fuel is not readily available from any other source.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#2, 15 &16





Applies to existing structures/infrastructure, future, or not applicable	Existing structures/infrastructure
Benefits (losses avoided)	Recent Damages: \$29,317
Estimated Cost	\$188,249
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive
Local Planning Mechanism	
Potential Funding Sources	“\$141,187 HMGP; _\$47,063_ 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: SCPD – 2 (Sandy HMGP LOI #: 417)

Mitigation Action/Initiative: Marine Bureau Fuel Supply Protection Project

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Fuel pumps supply Marine Bureau South Shore vessels for emergency response
Property Protection	1	Project designed to prevent repetitive damage to pumps from flooding
Cost-Effectiveness	1	Compared to repetitive replacement of pumps
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Project will be compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department
Number: SCPD -3 (Sandy HMGP LOI #: 428)
Mitigation Action/Initiative: Marine Bureau Shop Damage Mitigation Project

Assessing the Risk	
Hazard(s) addressed:	Flooding, Hurricanes, Nor'Easters, Severe Storms
Specific problem being mitigated:	Retrofit the shop area with a raised platform or "mezzanine" work area (including appropriate electrical) to store and use welding equipment and bench tools.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. Find an area near the building where a septic system that is at least 5 feet above existing sea level could be built. New system in this area with a pump to pump sewage up to required level estimated at \$100,000. Does not address shop floor level or bay door or oil tanks. There are no engineering details for this alternative as there is no existing county funding to fully explore the option, which would only address one aspect of facility risks.</p> <p>2. Do all proposed mitigation activities except the fuel oil tank removal. Would mitigate all flood hazards but not be compliant with requirement to remove obsolete fuel oil tank. Project cost would be reduced by the cost of the fuel tank removal only (\$29,270)</p> <p>3. No Action. Facility remains as is, vulnerable to the same losses for another severe storm. \$10,000 estimated in clean-up costs alone for each event. Potential door failure. Potential loss of equipment for future flood event</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	Power tools on the shop floor are vulnerable to damage when the shop floods during storm conditions. Loss of these tools would significantly impact upon the ability to keep vessels in service in the aftermath of a storm.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#'s 2, 15, 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$273,619
Estimated Cost	\$524,608
Priority*	High





Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive
Local Planning Mechanism	
Potential Funding Sources	“\$393,456 HMGP; _\$131,152_ 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: SCPD -3 (Sandy HMGP LOI #: 428)

Mitigation Action/Initiative: Marine Bureau Shop Damage Mitigation Project

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Marine Bureau emergency response fleet maintenance done in this facility
Property Protection	1	Project designed to prevent repetitive damage to infrastructure
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department

Number: SCPD – 4 (Sandy HMGP LOI #: 1835)

Mitigation Action/Initiative: Permanent Generator Installation- 911 Backup Center

Assessing the Risk	
Hazard(s) addressed:	Hurricanes, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Stand alone permanently installed generator to provide electricity to the 911 Backup Center.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action – Continued risk of loss of power due to aging generator, for which replacement parts are no longer available.
	2. Rely on primary site generator, with risk of failure.
	3. Move 911 center to Quartermaster or 7 th Pct backup centers, with significant loss of capability.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Will allow emergency calls for assistance to be recieved and dispatched during a disaster.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#’s 15 & 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$86,496
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive
Local Planning Mechanism	
Potential Funding Sources	“\$64,872 HMGP; _\$21,624_ 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: SCPD – 4 (Sandy HMGP LOI #: 1835)

Mitigation Action/Initiative: Permanent Generator Installation- 911 Backup Center

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	911 Call and Dispatch center provides critical function in emergencies
Property Protection	1	Project designed to allow continuity of 911 operations
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Existing Capital Project funding
Environmental	1	Project will be compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department
Number: SCPD – 5 (Sandy HMGP LOI #: 1836)
Mitigation Action/Initiative: Permanent Generator Installation- Aviation East Hangar

Assessing the Risk	
Hazard(s) addressed:	Hurricane, Nor’Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Stand-alone permanently installed generator to provide electricity to critical Aviation Facility.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. No Action - No change to current situation. Facility is still vulnerable to loss of power due to natural hazards. Potential loss of helicopter service for lifesaving missions due to inability to open hangar door. Likelihood of damage to hangar door from manual opening, with potential cost of door replacement of \$175,000.</p> <p>2. Install a hangar door that can be operated manually, without electrical power. Inexpensive products are not likely to be adequate, and it may be difficult to find a door large enough for the currently required opening. Potentially very expensive door not cost effective.</p> <p>3. Seek large portable temporary generator. Past history indicates that large portable generators are in short supply during disasters.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	In order to access helicopter for use in life safety operations during a disaster.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#’s 15 & 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$53,624
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive
Local Planning Mechanism	
Potential Funding Sources	“\$ 40,218 HMGP; _\$13,406 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: SCPD – 5 (Sandy HMGP LOI #: 1836)

Mitigation Action/Initiative: Permanent Generator Installation- Aviation East Hangar

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Electrical power is required to open hangar door for helicopter to fly emergency response missions
Property Protection	1	Project will prevent loss of power to facility and potential grounding of helicopter
Cost-Effectiveness	1	Significantly less expensive than hangar door replacement
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Project will be compliant
Social	0	
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department
Number: SCPD – 6 (Sandy HMGP LOI #: 1837)
Mitigation Action/Initiative: Permanent Generator Installation- Police Academy Emergency Worker Shelter

Assessing the Risk	
Hazard(s) addressed:	Hurricanes, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Stand-alone permanently installed generator to provide electricity to critical facility used by the Police Department.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No Action – Use facility with risk of loss of power and associated consequences.
	2. Do not use facility as a shelter. Would need to locate another facility with back-up power.
	3. Relocate shelter to another location within the college facility with power supply; would require renegotiated contract.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Used to shelter employees and house command and control functions for disasters.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#’s 15 & 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$106,296
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive
Local Planning Mechanism	
Potential Funding Sources	\$79,722 HMGP; _\$26,574_ for Local Match”
Timeline for Completion	Short
Reporting on Progress	





Date of Status Report/ Report of Progress	Date: Progress on Action/Project:
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* Refer to results of Prioritization (page 2)





Prioritization

Number: SCPD – 6 (Sandy HMGP LOI #: 1837)
Mitigation Action/Initiative: Permanent Generator Installation- Police Academy Emergency Worker Shelter

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Generator will ensure power to facility housing emergency workers
Property Protection	0	
Cost-Effectiveness	1	Effective compared with developing an alternate site
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Project will be compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Police Department
Number: SCPD – 7 (Sandy HMGP LOI #: 1839)
Mitigation Action/Initiative: Permanent Generator Installation- Special Patrol Bureau

Assessing the Risk	
Hazard(s) addressed:	Hurricanes, Nor'Easters, Severe Storms, Severe Winter Storms
Specific problem being mitigated:	Stand-alone permanently installed generator to provide electricity to critical Special Patrol and Aviation resources.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	<p>1. No Action: No change to current situation. Facility is still vulnerable to loss of power due to natural hazards. Potential loss of helicopter service for lifesaving missions due to inability to open hangar door. Likelihood of damage to hangar door from manual opening, with potential cost of door replacement of \$150,000. Portable generator cannot power all specialized equipment including computers and Crime Scene equipment.</p> <p>2. Install a hangar door that can be operated manually, without electrical power. Inexpensive products are not likely to be adequate, and it may be difficult to find a door large enough for the currently required opening. Potentially very expensive door not cost effective. Does not address inadequate power to the rest of the building supplied by current portable generator.</p> <p>3. Seek larger portable temporary generator. Past history indicates that larger portable generators are in short supply during disasters.</p>
Action/Project Intended for Implementation	
Description of Selected Action/Project	Would allow access to helicopters to conduct life safety operations during a disaster.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	#’s 15 & 16
Applies to existing structures/infrastructure, future, or not applicable	Existing Infrastructure
Benefits (losses avoided)	Recent Damages: \$0
Estimated Cost	\$83,240
Priority*	High
Plan for Implementation	
Responsible Organization	Suffolk County Police Department: Lisa Santeramo, Assistant Deputy County Executive





Local Planning Mechanism	
Potential Funding Sources	\$62,430 HMGP; _\$20,810_ 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: SCPD – 7 (Sandy HMGP LOI #: 1839)

Mitigation Action/Initiative: Permanent Generator Installation- Special Patrol Bureau

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Electrical power is required to open hangar door for helicopter to fly emergency response missions
Property Protection	1	Project will prevent loss of power to facility and potential grounding of helicopter
Cost-Effectiveness	1	Significantly less expensive than hangar door replacement
Technical	1	
Political	1	
Legal	1	
Fiscal	1	Partial funding currently exists
Environmental	1	Project will be compliant
Social	0	No effect
Administrative	1	Administrative capabilities in place
Multi-Hazard	1	
Timeline	1	
Agency Champion	1	Strong support from Police and County
Other Community Objectives	1	Project is consistent with local Capital Project objectives
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: Suffolk County Soil & Water Conservation District
Number: _____
Mitigation Action/Initiative: Drainage Deflection Maintenance to Protect Public and Private Property on Eastern Suffolk

Assessing the Risk	
Hazard(s) addressed:	Flooding issues.
Specific problem being mitigated:	Prevent flooding of farms and private residences.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. No action, existing problem continues. 2. Repair of Dike system. Incomplete solution to problem. 3. Repair to Dike System with Tidal Floodgates for a complete System.
Action/Project Intended for Implementation	
Description of Selected Action/Project	3) Hurricane damaged existing dike system will be repaired/rebuilt and a tidal floodgate installed to mitigate flooding issues to croplands and protect private residences.
Mitigation Action/Project Type	Structure and Infrastructure Project
Objectives Met	2,5,15
Applies to existing structures/infrastructure, future, or not applicable	Existing and Future
Benefits (losses avoided)	Recent Damages: Loss of function of croplands due to salt inundation, road closures avoided due to high tidal storm surges and flooding of homes.
Estimated Cost	High
Priority*	High
Plan for Implementation	
Responsible Organization	USDA Natural Resources Conservation Service, Town of Southold
Local Planning Mechanism	Federal Funds have already been committed through USDA and additional Funding is being sought through FEMA.
Potential Funding Sources	Grant Funding - Federal
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:

Mitigation Action/Initiative: Drainage Deflection Maintenance to Protect Public and Private Property on Eastern Suffolk

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevention of Road Flooding will help maintain safety.
Property Protection	1	This Project is expected to protect croplands and homes from flooding and salt damage.
Cost-Effectiveness	1	Long term effects are expected to be highly cost-effective.
Technical	1	USDA has completed all the Design work and is overseeing the entire Project.
Political	0	No effect is expected from a Political aspect.
Legal	1	This Project will protect the Municipalities from Legal action.
Fiscal	0	There is no effect on Local Budgets since the Project is funded entirely by USDA and the Landowners.
Environmental	1	The addition of freshwater wetland areas will enhance wildlife.
Social	1	Nearby home-owners will be protected from tidal storm surges.
Administrative	1	The USDA and the Town of Southold have all necessary Administrative abilities.
Multi-Hazard	1	This will protect croplands from salt damage and homes and roads from flood damage.
Timeline	1	This Project should be finished within this year.
Agency Champion	1	The USDA NRCS and the Town Supervisor are the responsible parties.
Other Community Objectives	0	
Total	11	
Priority (High/Med/Low)	High	

