

Town of Oyster Bay Annex

This document presents the Town of Oyster Bay’s annex to the *Nassau County Multi-Jurisdictional Hazard Mitigation Plan*.

Hazard Mitigation Plan Points of Contact

The individuals below have been identified as this jurisdiction’s points of contact for the hazard mitigation plan. These individuals are members of the Planning Committee that met regularly for the update of this plan and will continue to meet in the years ahead to implement it.

Primary Point of Contact	Alternate Point of Contact
Robert Mangano, Deputy Commissioner Town Of Oyster Bay 150 Miler Place Syosset, NY 11791 rmangano@oysterbay-ny.gov 516-677-5352	Justin McCaffrey, Commissioner Town Of Oyster Bay 150 Miler Place Syosset, NY 11791 jmccaffrey2@oysterbay-ny.gov 516-677-5357

Profile

The Town of Oyster Bay covers approximately 103.75 square miles¹ and has a total population of 298,391 according to the American Community Survey 5-year 2018 Estimates. Some of the demographics of the Town of Oyster Bay are summarized in Table 1. This information supported the development of mitigation actions that account for the needs of the most vulnerable individuals in the community.

Table 1: Town of Oyster Bay Demographic Information

Demographic		Demographic	
Below 5 Years Old	4.5%	Black or African American alone	2.4%
Above 65 Years Old	18.1%	American Indian and Alaska Native alone	0.1%
Individuals with Disabilities	4.5%	Asian alone	11.7%
Persons in Poverty	4.0%	Native Hawaiian and other Pacific Islander alone	0.0%
Renters	11.8%	Two or More Races	1.9%
Without a High School Diploma	5.1%	White alone, not Hispanic or Latino, percent	81.9%

¹ This is inclusive of land area only.

Demographic		Demographic	
Without Access to Broadband Internet	10.2%	Hispanic or Latino	7.9%

Prominent development and growth has occurred in the residential, business, industrial, including light-industrial, and natural sectors. In the last five years, the Town of Oyster Bay has seen new construction as well as upgrades and redevelopment to existing construction, and new business construction. Home elevations continue to occur in the 100-year floodplain. The jurisdiction maintains zoning maps and planning teams. By understanding these development trends and how they intersect with hazard-prone areas, this allows for current and future vulnerabilities to be planned for and avoided.

Refer to the **County Profile** section of this plan for additional information related to current and future conditions of the County’s vulnerable population and the natural environment. This information provides important context for understanding hazard mitigation planning.

Hazard Vulnerability

This section summarizes how the natural hazards profiled in Section 4 of this plan impact the Town of Oyster Bay. The jurisdiction identified Coastal Hazards, Flooding, Hurricane, and Severe Winter Weather as natural hazards that impact the community most. Table 2 shows the sectors of the community that are most likely to be impacted by each hazard. The categories that were considered included the community, economy, health and social services, housing, infrastructure, natural and cultural resources, or no impact. No impact indicates that the jurisdiction did not identify a noticeable impact from the hazard over the past five years, even if the hazard occurs. This information was used to develop a relevant and effective mitigation strategy for the jurisdiction. Detailed hazard event histories, critical facility exposure, and additional vulnerability information can be found in each hazard profile in Section 4 of this plan.

The hazards that most impact the Town of Oyster Bay include: **Coastal Hazards, Flooding, Hurricane, and Severe Winter Weather.**

Table 2: Town of Oyster Bay Hazard Impacts

Hazard	Impact Categories
Coastal Hazards	Community, Economy, Housing, Infrastructure
Drought	No Impact
Extreme Temperatures	Health and Social Services, Natural and Cultural Resources
Flooding	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Ground Failure	Infrastructure
Hurricane and Tropical Storms	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources

Hazard	Impact Categories
Hail	Housing, Infrastructure, Natural and Cultural Resources
Lightning	Housing, Infrastructure
Severe Winter Weather	Community, Infrastructure
Tornados	Housing, Infrastructure
Wind	Housing, Infrastructure, Natural Cultural Resources

Capability Assessment

This section summarizes the capabilities that the Town of Oyster Bay has in place that can support hazard mitigation. These capabilities include plans, ordinances, staff, financial resources, and program participation. This Capability Assessment was used to help drive the identification and development of the projects presented in the Mitigation Strategy to make sure that they are appropriate in scope and achievable to implement.

Legal and Regulatory Capability Assessment

Table 3 lists the assessment of existing legal and regulatory tools for the Town of Oyster Bay. The Town of Oyster Bay maintains several key administrative and technical capabilities to support mitigation, including access and functional needs plans, building codes, capital improvement plans, community development plans, comprehensive/master plans, economic development plans, emergency response plans, floodplain management plans, growth management plans, NFIP flood damage prevention ordinances, post disaster recovery ordinances, post disaster recovery plans, resilience plans, site plan review requirements, special purpose ordinances, stormwater management plans, subdivision ordinances, and zoning ordinances. These capabilities are critical to consider as tools in developing and implementing mitigation strategies. To further enhance their mitigation capabilities, the Town can consider the capabilities in the table below that the Town currently does not have. These additional capabilities would either support creating a legal framework or strategy for implementing a diversity of mitigation actions.

Table 3: Town of Oyster Bay Existing Legal and Regulatory Capabilities

Regulatory Tool	Yes / No	Citation (if applicable)
Access and Functional Needs Plan	Yes	
Building Code	Yes	
Capital Improvement Plan	Yes	
Climate Action Plan	No	
Community Development Plan	Yes	
Comprehensive Plan / Master Plan	Yes	
Economic Development Plan(s)	Yes	

Regulatory Tool	Yes / No	Citation (if applicable)
Emergency Response Plan(s)	Yes	
Floodplain Management Plan(s)	Yes	
Growth Management Plan(s)	Yes	
NFIP Flood Damage Prevention Ordinance(s)	Yes	
Open Space Plan(s)	No	
Post Disaster Recovery Ordinance(s)	Yes	
Post Disaster Recovery Plan(s)	Yes	
Real Estate Disclosure Requirements	No	
Resilience Plan(s)	Yes	
Site Plan Review Requirement(s)	Yes	
Small Area Development Plan(s)	No	
Special Purpose Ordinance(s)	Yes	
Stormwater Management Plan(s)	Yes	
Subdivision Ordinance(s)	Yes	
Transportation Plan(s)	No	
Zoning Ordinance(s)	Yes	

Administrative and Technical Capability Assessment

Table 4 lists the assessment of existing administrative and technical tools for the Town of Oyster Bay. The Town of Oyster Bay has a high level of administrative and technical capabilities to support mitigation. Increasing training capacity and expertise of these individuals will support mitigation practice in the Town.

Table 4: Town of Oyster Bay Existing Staff / Personnel Resource

Staff / Personnel Resource	Yes / No	Details
Emergency Manager(s)	Yes	Director of Emergency Management
Engineer(s) trained in construction practices related to buildings/infrastructure	Yes	Professional Engineer
Engineer(s) with an understanding of natural and/or human caused hazards	Yes	Professional Engineer
Engineer(s) with knowledge of land development and land management practices	Yes	Professional Engineer
Grant Writers	Yes	Intergovernmental Affairs

Staff / Personnel Resource	Yes / No	Details
Personnel skilled or trained in Geographic Information Systems	Yes	GIS Coordinator IT
Personnel trained in construction practices related to buildings/infrastructure	Yes	Professional Engineer
Planner(s) with an understanding of natural hazards	Yes	Emergency Manager
Planner(s) with knowledge of land development and land management practices	Yes	Emergency Manager
Scientist(s) familiar with natural hazards	Yes	Meteorologists
Surveyors	Yes	Engineering Division

Fiscal Capability Assessment

Table 5 lists the assessment of existing fiscal tools for the Town of Oyster Bay. Funding is often the biggest barrier when implementing mitigation programs. The Town is primarily able to fund mitigation programs by capital improvements project funding, CDBG programs, and state mitigation grant programs. Town of Oyster Bay should consider exploring additional fiscal capabilities in order to gain access to additional funding for mitigation.

Table 5: Town of Oyster Bay Existing Fiscal Capabilities

Resources	Yes / No	Additional Details
Ability to incur debt through general obligation bonds	No	
Ability to incur debt through private activity bonds	No	
Ability to incur debt through special tax bonds	No	
Authority to levy taxes for specific purposes	No	
Authority to utilize user fees for utility services	No	
Authority to withhold public expenditures in hazard prone areas	No	
Capital improvements project funding	Yes	
Community Development Block Grants (CDBG)	Yes	
Impact fees for home buyers and/or developers	No	
State mitigation grant programs	Yes	

Community Classification Assessment

Table 6 lists the assessment of existing community classifications for the Town of Oyster Bay. Participation in the BCEGS, Public Protection Classification program and Climate

Smart Community program demonstrates increased capabilities of the Town related to mitigation. Exploring gaining additional community classifications will guide the Town's mitigation programs and support capacity building.

Table 6: Town of Oyster Bay Community Classifications

Classification	Yes/No (or Status)
Building Code Effectiveness Grading Schedule (BCEGS)	Yes
Public Protection Classification Program	Yes
Community Rating System (CRS)	No
Other Classifications	Climate Smart Community

National Flood Insurance Program Summary

This section provides a summary of the floodplain management capabilities for Town of Oyster Bay and how the jurisdiction is meeting the requirements of the National Flood Insurance Program (NFIP).

The northern and southern shores of the Town of Oyster Bay are prone to flooding. There are 4,527 NFIP policies enforced in the Town of Oyster Bay. Total coverage is \$1,361,641,300 and total premium is \$5,499,195.

The Town's Commissioner of Planning and Development Department is responsible for floodplain management. The Town administers the NFIP through education, permits, site plan review, and inspections. The Town did not note any current barriers to running a successful NFIP program. The flood maps for this jurisdiction accurately portray the current flood risk. There are currently no RiskMAP projects ongoing in this jurisdiction.

After flood events, substantial damage determinations are made through in-person site inspections. The Town reported that 60 properties were substantially damaged as a result of recent flood events. The Town of Oyster Bay is in good standing with the NFIP. Based on documentation received from NYSDEC, the Town had its last Community Assistance Contact on 11/29/2012 and its last Community Assistance Visit on 09/09/2014. There are no NFIP compliance violations that need to be addressed in this jurisdiction.

The elevation of homes, businesses, roads, and bulkheads have been the Town's primary mitigation tool in flood-prone areas. The Flood Damage Prevention Ordinance for the Town of Oyster Bay meets minimum requirements. The ordinance was last amended 2019 and can be referenced in Chapter 121. Other steps that the Town takes to support the floodplain management program and meet NFIP requirements includes conducting regular education and outreach coordinated through the Public Information Officer (PIO).

Mitigation Strategy

The following section provides an overview of the mitigation strategy for Town of Oyster Bay. It provides an overview of the jurisdiction’s previous mitigation actions, proposed actions, and the NYS mitigation worksheets.

Previous Mitigation Actions

Note: Some mitigation actions from the previous plan associated with non-participating entities within the Town of Oyster Bay have been carried forward into this plan update within the Nassau County Mitigation Strategy.

Previous Project Table #1 – 8:

Action	Permanent generators installed at 10 critical facilities and locations throughout the Town.	Restore and enhance Massapequa Watershed	Rebuild Fireman Parking Field w/green infrastructure and Rainstore 3 water management systems.	Muscle Wall Mitigation System	Tidal Gauge and Tidal check valves	Improved bulkheading in multiple vulnerable public and private locations	Emergency Response Vehicles	Reconstruction of Bay Constable Building
Risk Category	Extreme weather	Storm surge	Flooding	Flooding	Flooding	Flooding	Flooding	Flooding
Project Status	In Progress	Not provided	Not started	Not started	In Progress	In Progress	In Progress	Complete
Project Status Description	Permanent generators have been installed at 5 locations within the Town of Oyster Bay since 2014 Mitigation Plan adoption. The need for additional generators at critical facilities remains.	Not provided	Town of Oyster Bay twice applied for NYS grant funding for this project but was not selected for funding.	Funding for this purpose was pursued through the NYS Hazard Mitigation Grant Program but was not selected for funding.	Tidal check valves are being installed with use of funding through the NY Rising Community Reconstruction Program. Presently, this project is within the Design Phase and check valve installations are anticipated summer 2020 - spring 2021. Check valves being installed through this	Some bulkhead improvements have been completed or are underway; however more bulkhead improvements are required.	The Town of Oyster Bay has purchased emergency response vehicles since the adoption of the 2014 Mitigation Plan. However; the need for additional vehicles remains.	Repairs/renovations to the Bay Constable Building had been completed with use of FEMA PA funding. However, the need for further enhancements may arise. This action should be carried forward.

Action	Permanent generators installed at 10 critical facilities and locations throughout the Town.	Restore and enhance Massapequa Watershed	Rebuild Fireman Parking Field w/green infrastructure and Rainstore 3 water management systems.	Muscle Wall Mitigation System	Tidal Gauge and Tidal check valves	Improved bulkheading in multiple vulnerable public and private locations	Emergency Response Vehicles	Reconstruction of Bay Constable Building
					project do not represent the entirety of need for check valves/gauges throughout Town of Oyster Bay.			
Carried Forward to 2020 Plan	Yes	Not provided	Yes	Yes	Yes	Yes	Yes	Yes
Required Changes	The number of generators should not be quantified. The need for additional generators may be realized at a later date.	Not provided	The Rainstore 3 water system should not be referenced by product name; superior or more appropriate products/technologies may be identified. 'Rebuild Fireman Field Parking Field w/ Green Infrastructure and drainage and stormwater treatment improvements' would be a more appropriate project title.	Not provided	Not provided	Not provided	Not provided	N/A (Completed)

Previous Project Table #9 – 14:

Action	Home elevations	Road Elevations	Replace 155 outfall pipes and valves	Relocate Town OEM to Nassau County OEM	Two existing generators and transfer switches will be replaced to strengthen the reliability of the emergency distribution system to help ensure the hospital will have adequate emergency power during events when local utility power is not available for several days.	Install Permanent Generator- It will have sufficient capacity to allow the individuals living in the group home to continue their daily living routines without interruption and without causing them any confusion
Risk Category	Flooding	Flooding	Flooding	Extreme weather	Loss of electrical power	High wind events, Hurricanes, Tropical Storms, and winter storms have caused the widespread loss of electrical power.
Project Status	In progress	In progress	In progress	Not provided	Not provided	Not provided
Project Status Description	The Town of Oyster Bay has elevated private homes with use of NYS Hazard Mitigation Funding. However, the Town continues to receive inquiries from additional homeowner about the potential to participate in the HMGP program for this purpose.	Road elevations have been completed and are presently in progress. However, the need for additional road elevations remains.	Outfall pipes and valves are being installed with use of funding through the NY Rising Community Reconstruction Program. Presently, this project is within the Design Phase and check valve installations are anticipated summer 2020 - spring 2021. Outfall Pipes and valves being installed through this project do not represent the entirety of need throughout Town of Oyster Bay.	Not provided	Not provided	Not provided

Action	Home elevations	Road Elevations	Replace 155 outfall pipes and valves	Relocate Town OEM to Nassau County OEM	Two existing generators and transfer switches will be replaced to strengthen the reliability of the emergency distribution system to help ensure the hospital will have adequate emergency power during events when local utility power is not available for several days.	Install Permanent Generator- It will have sufficient capacity to allow the individuals living in the group home to continue their daily living routines without interruption and without causing them any confusion
Carried Forward to 2020 Plan	Yes	Yes	Yes	No	No	No
Required Changes	Not provided	Not provided	The number of outfall pipes/valves should not be quantified. It is not known at this time the quantity of outfall pipes/valves which may fall into a state of disrepair in the future.	Not provided	Not provided	Not provided

Previous Project Table #15 – 19:

Action	Install Permanent 350KW Roof Mounted Generator: A permanent generator will be installed at the Administration Building that will have sufficient capacity to allow the District to operate all of its communications, sufficient security and data operated systems.	Relocate the existing control system to the second floor of the same building and upgrade from analog to SCADA controls. This will result in the controls located within the 500-year flood zone and the ability to respond to the community's needs more quickly.	Reconstruct existing maintenance garage at a three-foot higher elevation.	Increase height of transformer pad by two feet. Provide backup standby power during work.	A permanent generator will be installed at 188 South Street, Oyster Bay, NY 11771. The generator will have sufficient capacity to allow the Fire Station to quickly response to the community's needs.
Risk Category	Loss of Electrical Power	Frequent flooding	Frequent flooding	Frequent flooding, power outages	Frequent power outages
Project Status	In Progress	Not provided	Not started	Completed	Not provided
Project Status Description	They applied for the generator through state funding. They went through multiple application rounds but never got approved. Later they went through and went through a bond process to fund.	Not provided	Limitation is the need for funding to conduct the action. Escalate cost estimate to \$325,000	In lieu of raising height of exiting pad by two feet, a new pad and transformer were installed at a higher elevation.	Not provided
Carried Forward to 2020 Plan	No	No	Yes	No	No
Required Changes	N/A	Not provided	Not provided	Construction cost for the work paid for under an Oyster Bay Sewer District capital project at a construction cost of \$90,393.	Not provided

Previous Project Table #20-27:

Action	Install 40 kw natural gas electrical generator with automatic transfer switch for primary circuits in office and garage facility.	Installation of Underground Primary Electrical Cables @ Well Sites 3 & 12	Backup, standby generators will be installed at ten of the District's critical sites. These generators will power wells, filtration equipment and other infrastructure used to provide potable water to 58,000 District residents, two hospitals, several nursing homes and many other businesses and government institutions.	A permanent generator will be installed at the NW wellfield site. It will have sufficient capacity to allow the site to provide potable water to quickly respond to the community's needs.	A permanent generator will be installed at the NY Avenue wellfield site. It will have sufficient capacity to allow the site to provide potable water to quickly respond to the community's needs.	HSMS Natural Gas Generator Installation	A permanent generator will be installed at Well No. 3. It will have sufficient capacity to allow the site to provide potable water to quickly respond to the community's needs.	A permanent generator will be installed at 885 Old Country Road, Plainview NY 11803. It will have sufficient capacity to allow the Fire Station to quickly respond to the community's needs.
Risk Category	Frequent power outages	Frequent power outages	Frequent power outages	Frequent power outages	Frequent power outages	Frequent power outages	Frequent power outages	Loss of electrical power
Project Status	Not provided	Not provided	Not provided	Completed	Completed	Not provided	Not provided	Not provided
Project Status Description	Not provided	Not provided	Not provided	Project implemented using internal funding.	Project implemented using internal funding.	Not provided	Not provided	Not provided
Carried Forward to 2020 Plan	No	No	No	No	No	No	No	No
Required Changes	Not provided	Not provided	Not provided	N/A (Completed)	N/A (Completed)	Not provided	Not provided	Not provided

Proposed Mitigation Actions

Proposed Project Table #1-7:

Project Number	TOB_1	TOB_2	TOB_3	TOB_4	TOB_5	TOB_6	TOB_7
Project Name	Bayfront Park Bulkhead / Green Infrastructure Enhancements	Business Continuity Program	Emergency Cell Phone Service	Emergency Cell Phone Service	Emergency Preparedness and Disaster Action Planning	Enhancements to Bay Constable Building	Flood Diversion and Control
Goal being met	1	2	1	1	2	1,3	3
Hazards to be mitigated	Flooding	Various	Power Outage	Power Outage	Flooding - Emergency Response Capability	Flooding	Flooding
Description of the Problem	Flooding during storms.	Detrimental economic impacts on businesses due to hazards.	Loss of cell service during storms and power outages.	Loss of cell service during storms and power outages.	Emergency responders were unable to respond effectively to the hardest hit areas in the Town of Oyster Bay during Superstorm Sandy due to insufficient equipment to handle flooded roads	Bay Constable Building was repaired and renovated after sustaining considerable flood damage due to Hurricane Sandy. This building continues to be at risk of flooding due to its proximity to large water bodies.	Flooding during storms.
Description of the Solution	Surge Prevention; Drainage	Create a Business Continuity Program to assist small business owners with creating plans for continuing their operations after major storms and other emergencies.	Work with local cellular service providers and regulatory agencies to broaden service areas and equip cell towers with backup power in case of emergency.	Work with local cellular service providers and regulatory agencies to broaden service areas and equip cell towers with backup power in case of emergency.	Create a disaster action plan centered around upgrading emergency vehicles and an improved coordinated response system.	Evaluate and complete mitigative enhancements to further protect the Bay Constable Building from future flood events.	Divert flood water to designated catchment areas, install new tidal check valves and backflow preventers, install outflow pipe lining and install new infrastructure where needed. Inspect existing drainage

Project Number	TOB_1	TOB_2	TOB_3	TOB_4	TOB_5	TOB_6	TOB_7
							basins to ensure they are functioning.
Critical Facility	No	No	No	No	No	No	No
EHP Issues	No	No	No	No	No	No	No
Estimated Timeline	Two Years	Two Years	Two Years	Two Years	Two Years	Five Years	Two Years
Lead Agency	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay
Estimated Costs	<\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00
Estimated Benefits	Reduce flood losses to property and infrastructure due to storm surge.	Reduce economic losses due to continued business operations during times of disaster and interruption.	Cell service would not be lost.	Cell service would not be lost.	Emergency responders would not be delayed by flooding.	Prevent future flood damage to the building.	Infrastructure and facilities/homes will remain undamaged by floods.
Potential Funding Sources	FEMA, DHS, NYS	FEMA, NYSDHSES	FEMA, NYSDHSES	FEMA, NYSDHSES	FEMA, NYSDHSES	FEMA, NYS DHSES, Capital Budget	FEMA, NYSDHSES

Proposed Project Table #8-14

Project Number	TOB_8	TOB_9	TOB_10	TOB_11	TOB_12	TOB_13	TOB_14
Project Name	Green Infrastructure Pilots	Muscle Wall Mitigation System	Permanent Generators for Critical Community Facilities	Repair and Rebuild Stormwater Management System at Fireman's Memorial Field	Roadway Elevation / Lifeline Road Network	Storm Water System Modeling and Analysis	Street Lighting / Lifeline Road Network
Goal being met	1, 3, 5	2,3	3	1, 3, 5	1	1	1
Hazards to be mitigated	Flooding	Flooding	Power Outage	Flooding	Flooding	Flooding	Power Outage
Description of the Problem	Flooding during storms.	Critical facilities, infrastructure, and assets are vulnerable to coastal and flash flooding.	Loss of power to Critical Facilities.	Fireman's Memorial Field experiences drainage and stormwater management issues during times of heavy rain. This interrupts the use and safety of this facility.	Flooding during storms.	Flooding during storms.	Non-operational streetlights and signals during power outages.
Description of the Solution	A pilot program to supplement hard infrastructure with natural systems.	Evaluate and purchase muscle wall mitigation system that can be deployed to temporarily protect critical facilities and assets from flooding.	Install permanent generators at critical facilities.	Rebuild Fireman's Memorial Field with Green Infrastructure, drainage, and stormwater treatment improvements.	Raise the elevation of flood susceptible roads.	A comprehensive analysis to determine the causes of localized flooding and identify measures to combat it.	Retrofit streetlights and signals to operate on battery backup power.
Critical Facility	No	Yes	Yes	No	No	No	No
EHP Issues	No	No	No	Yes	No	No	No
Estimated Timeline	Two Years	Five Years	Two Years	Five Years	Two Years	Two Years	Two Years
Lead Agency	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay	Town of Oyster Bay

Project Number	TOB_8	TOB_9	TOB_10	TOB_11	TOB_12	TOB_13	TOB_14
Estimated Costs	<\$1,000,000.00	\$60,848	<\$1,000,000.00	\$3,300,000	>\$1,000,000.00	<\$1,000,000.00	<\$1,000,000.00
Estimated Benefits	Mitigation of damage cause by flooding	Protect buildings and assets from sustaining flood damage.	Critical facilities will continue to have power.	Reduce damage to the field and parking lots due to flooding.	Reduction in flooding of roads.	Improved Drainage	No loss of power to streetlights and signals.
Potential Funding Sources	FEMA, NYSDHSES	FEMA, Capital Budget	FEMA, NYSDHSES	FEMA, Capital Budget	FEMA, NYS	FEMA, NYS	FEMA, NYS

Mitigation Action Worksheets

The following pages contain mitigation action worksheets that provide additional detail some of the jurisdiction's proposed mitigation actions.

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Bayfront Park Bulkhead / Green Infrastructure Enhancements		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	During storm and coastal flooding events, Bayfront Park and the adjacent residential properties experience flooding.		
Action or Project Intended for Implementation			
Description of the Solution:	Improved and/or new bulk heading to prevent storm surge. Implementation of drainage improvements inclusive of Green Infrastructure (i.e., permeable paving, raingardens, bio swales).		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	+50 years	Estimated Benefits (losses avoided):	Reduce flood damage to homes and infrastructure from storm surge.
Useful Life:	25 years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	Greater than five years
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES, NYS OPRHP
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	Elevation Projects	Less than \$1,000,000.00	There is no addition of green infrastructure and the cost is the same as doing the more comprehensive project.
	Road and house elevations	Greater than \$5,000,000.00	The cost is too high.
	No Action	\$0	Homes and the park continue to flood and sustain damage.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Business Continuity Program		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Various (i.e., Flooding, Winds)		
Description of the Problem:	Small businesses throughout the Town of Oyster Bay suffered physical damage through flooding and other hazards like falling trees during Superstorm Sandy. Many also suffered from a public misperception that they were closed when they were open. Many employees suffered reduced hours and paychecks.		
Action or Project Intended for Implementation			
Description of the Solution:	Creation of a Business Continuity Program to assist small business owners with creating plans for continuing operations after major storms or other emergencies. Run by Adelphi University and the Business Continuity Institute, the program would help small business owners create plans for backup power needs, access to alternative sites if needed, and backup provisions for vital records. The program would also provide assistance and guidance to small businesses for future funding needs.		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	50 years	Estimated Benefits (losses avoided):	Reduce economic losses due to continued business operations during times of disaster and interruption.
Useful Life:	Five years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No action	\$0	Interruptions to businesses continue.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

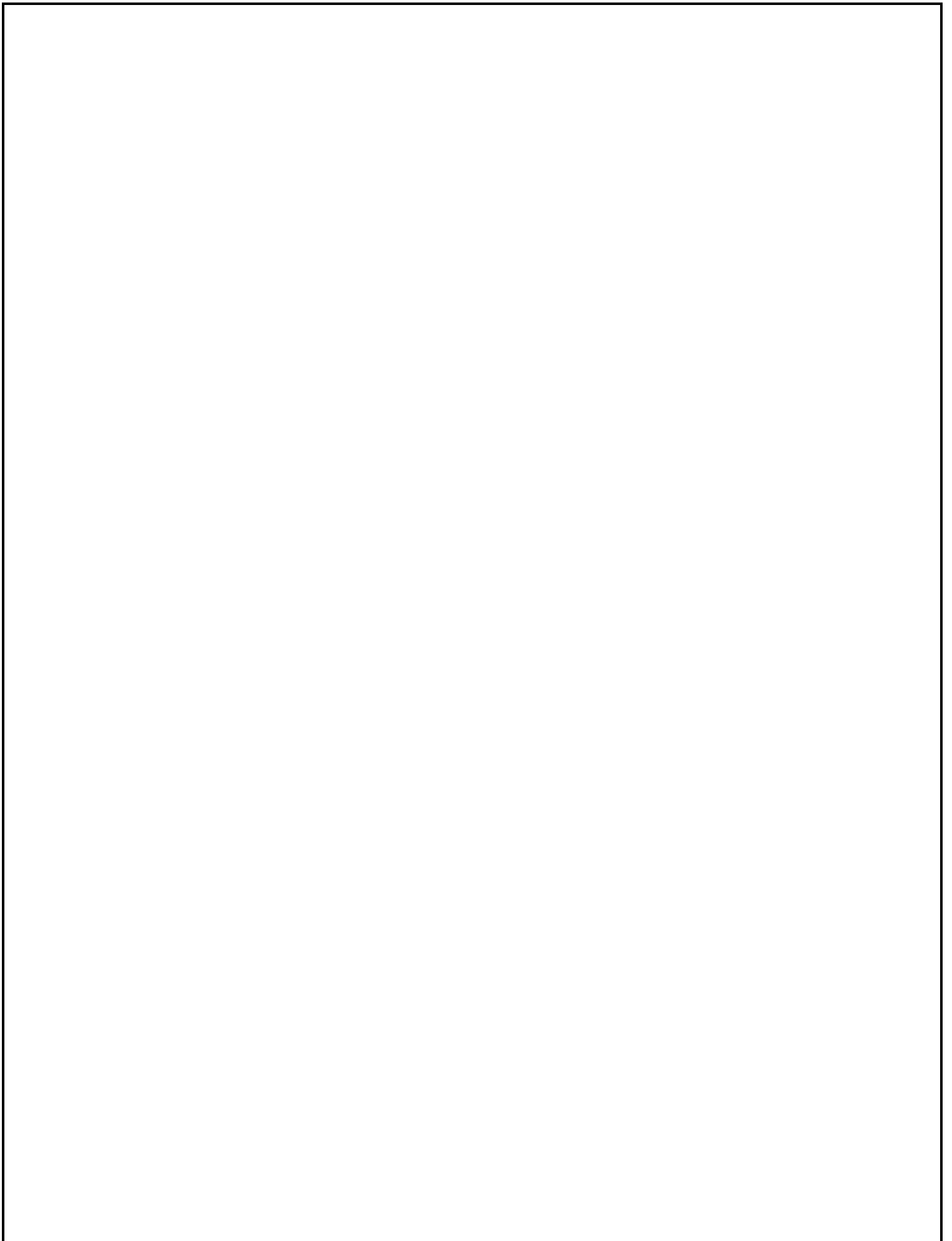
(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Emergency Cell Phone Service		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Power loss during storms		
Description of the Problem:	Town of Oyster Bay residents have ongoing issues with quality cell phone service during storms due to power outages. Reliable cell phone networks are imperative for communication to inform community on updated conditions, evacuation routes, and shelter locations during storms, particularly among more vulnerable people such as children, seniors, and persons with disabilities.		
Action or Project Intended for Implementation			
Description of the Solution:	Work with local cellular service providers and regulatory agencies to broaden service areas and equip cell towers with backup power in case of emergency.		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
<small>(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)</small>			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Cell service would not be lost.
Useful Life:	Ten years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	Purchase a temporary cell on wheels (COW) to provide a temporary cellular network.	Less than \$1,000,000	Demand very high/Unavailable when needed
	No action	\$0	Cellular outages continue to occur during storms and power outages.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Emergency Preparedness and Disaster Action Planning		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding - Emergency Response Capability		
Description of the Problem:	Emergency responders were unable to respond effectively to the hardest hit areas in the Town of Oyster Bay during Superstorm Sandy due to insufficient equipment to handle flooded roads. Homes burned and other community assets were damaged.		
Action or Project Intended for Implementation			
Description of the Solution:	A disaster action plan centered around upgrading emergency vehicles and an improved coordinated response system. The plan would include a network for contacting seniors in an emergency, installation of tidal gauges to better prepare evacuations, purchase of additional emergency response vehicles with modern communications equipment, purchase of a five-ton army truck with pump and tack to access burning buildings in flooded areas, and purchase of a Muscle Wall Mitigation system to protect buildings in lieu of sand bags. Other potential purchases: sandbags, emergency boat for Bay Constables, portable water pumps and heavy duty boat trailers.		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Emergency responders would not be delayed by flooding.
Useful Life:	Five to ten years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Flood Diversion and Control		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Failing drainage pipes and flood valves during Superstorm Sandy caused expensive infrastructure damage in many Town neighborhoods. Sumps became overrun with storm water as storm pipe outfalls were damaged.		
Action or Project Intended for Implementation			
Description of the Solution:	Control flood waters by locating structural drainage features in the Town to divert flood water into designated catchment areas. Install new tidal check valves and backflow preventers to protect roads and adjacent structures from flooding. Install outflow pipe lining and install new infrastructure where needed and inspect existing drainage basins to ensure they are functioning properly.		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100 year	Estimated Benefits (losses avoided):	Infrastructure and facilities/homes will remain undamaged
Useful Life:	25 years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Permanent Generators for Critical Community Facilities		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Power outage		
Description of the Problem:	Many Town residents voiced concern that many community facilities including shelters, community centers, and fire stations lacked power during Superstorm Sandy, rendering them inoperable.		
Action or Project Intended for Implementation			
Description of the Solution:	Installation of permanent generators on the roofs or upper floors of key Town community sites to reduce the risk of power loss at critical facilities that are used as points of coordinated emergency notifications during a storm. Providing backup power sources through generators will ensure food storage, cell phone charging capabilities, and other critical needs at these key community locations.		
Is this project related to a Critical Facility?	Yes	<input checked="" type="checkbox"/>	No
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Power restored immediately and remain on.
Useful Life:	Ten years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
	Install permanent generators only at Fire Stations	To be determined	Fire stations need to have power to respond to emergencies, but this solution does not solve issues related to providing all necessary critical services to the community.
	Investigate the usage of solar panels and batteries.	To be determined.	Installing solar panels might be very expensive compared to generators.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Green Infrastructure Pilots		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Flooding and associated damage occurs regularly during storm events throughout the Town, and was particularly severe during Superstorm Sandy.		
Action or Project Intended for Implementation			
Description of the Solution:	A pilot program to supplement hard infrastructure with natural systems including but not limited to a rain garden program, wetlands restoration and shared ownership of storm water infrastructure as part of a region-wide comprehensive Green Infrastructure Program. A broad Green Infrastructure Program would encourage more permeable paving in new developments and in parking lots across the Town		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Mitigation of damage cause by flooding
Useful Life:	Ten years		
Estimated Cost:	Greater than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	Pumping with pumps	Less than \$1,000,000	Not effective, flooding remains
	No Action	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Roadway Elevation / Lifeline Road Network		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Many TOB roadways experienced flooding during Superstorm Sandy, limiting mobility and making evacuation hazardous. Many residents also suffered property damage to homes and automobiles. Trash collection and mail services were disrupted.		
Action or Project Intended for Implementation			
Description of the Solution:	Streets susceptible to flooding or storm surge would be raised to provide safe access along roadways.		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
<small>(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)</small>			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Reduction in flooding of roads.
Useful Life:	Ten years		
Estimated Cost:	Greater than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Storm Water System Modeling and Analysis		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Periods of heavy rainfall cause localized flooding in many communities in the Town of Oyster Bay, a problem that is exacerbated by monthly spring tides.		
Action or Project Intended for Implementation			
Description of the Solution:	A comprehensive analysis to determine the causes of localized flooding and identify measures to combat it. The analysis would consist of key stakeholders (Town of Oyster Bay, Nassau County, local villages, NYS Department of Transportation, U.S. Geological Survey and other agencies) examining drainage assets within the Town to determine the level, size, line, and condition of drainage pipes. A catchment model would be built to determine the specific cause of flooding and appropriate solutions such as drainage improvement projects or green infrastructure projects such as permeable paving and storm water ponds.		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100 year flood	Estimated Benefits (losses avoided):	Improved drainage
Useful Life:	25 years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Town of Oyster Bay

NYS DHSES Action Worksheet			
Project Name:	Street Lighting / Lifeline Road Network		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Power outage		
Description of the Problem:	Downed trees and utility poles during storm events may render streetlights and signals inoperative. Many Town neighborhoods felt deserted and unsafe, with limited mobility.		
Action or Project Intended for Implementation			
Description of the Solution:	Retrofit streetlights and signals to operate on battery backup power. These improvements would allow residents to evacuate safely during a storm event and power outage		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
<small>(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)</small>			
Level of Protection:	100 year	Estimated Benefits (losses avoided):	Loss of power to streetlights and signals.
Useful Life:	Ten years		
Estimated Cost:	Less than \$1,000,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One year
Estimated Time Required for Project Implementation:	Two years	Potential Funding Sources:	FEMA, NYS DHSES
Responsible Organization:	Town of Oyster Bay	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	N/A	\$0	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Instructions

(Name of Jurisdiction) _____

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
Risk / Vulnerability			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
Action or Project Intended for Implementation			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
Plan for Implementation			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
Progress Report (for plan maintenance)			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		