



9.4 Village of Babylon

This section presents the jurisdictional annex for the Village of Babylon. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the Village participated in the planning process; an assessment of the Village of Babylon’s risk and vulnerability; the different capabilities utilized in the Village; and an action plan that will be implemented to achieve a more resilient community.

9.4.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Babylon’s hazard mitigation plan primary and alternate points of contact.

Table 9.4-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Skip Gardner, Superintendent Address: 153 West Main Street Babylon, New York 11702 Phone Number: 631-669-4878 Email: skipvob@gmail.com	Name/Title: Scott Glenn, Foreman Address: 153 West Main Street Babylon, New York 11702 Phone Number: 631-669-4878 Email: sglenn@villageofbabylonny.gov
NFIP Floodplain Administrator	
Name/Title: Steve Fellman, Building Inspector Address: 153 West Main Street Babylon, New York 11702 Phone Number: 631-669-1300	

9.4.2 Municipal Profile

The Village of Babylon is located on the Great South Bay and it’s accessibility to the Atlantic Ocean has involved the lives of those who lived here from the beginning to the present. The area known as Village of Babylon was purchased from the Sumpwam Indians in 1670. It was known as Huntington South. The farmers came down from Huntington to the South Bay area to harvest “salt” hay for bedding and feed for their livestock. It was a journey so the farmers would stay a period of time before returning home. Travelers would stop in Babylon on their three day trip to Southampton from New York City, creating the need for stores and services. Flounder, blue fish and shellfish were abundant in the bay providing income and sustenance for the settlers. Fresh streams from the North provided power for mills that produced grain, lumber and paper. By 1800, Babylon became a hub of activity.

Nathanial Conklin foresaw Babylon as a thriving town He built a home for his mother on the northeast corner of Main Street and Deer Park Avenue in 1803. Legend has it that Nat’s mother was unhappy with her home across from a tavern and compared the town with the biblical Babylon. The house now stands on the Northwest side of Deer Park Avenue where it was moved in 1871 with a cornerstone that reads “New Babylon, This House Built by Nat Conklin, 1803”.

When the railroad arrived in the Village in 1867, it became a thriving resort area. A trolley ran from the depot to the steamship dock where ferries sailed to the beaches. At one time there were eleven hotels in Babylon Village.

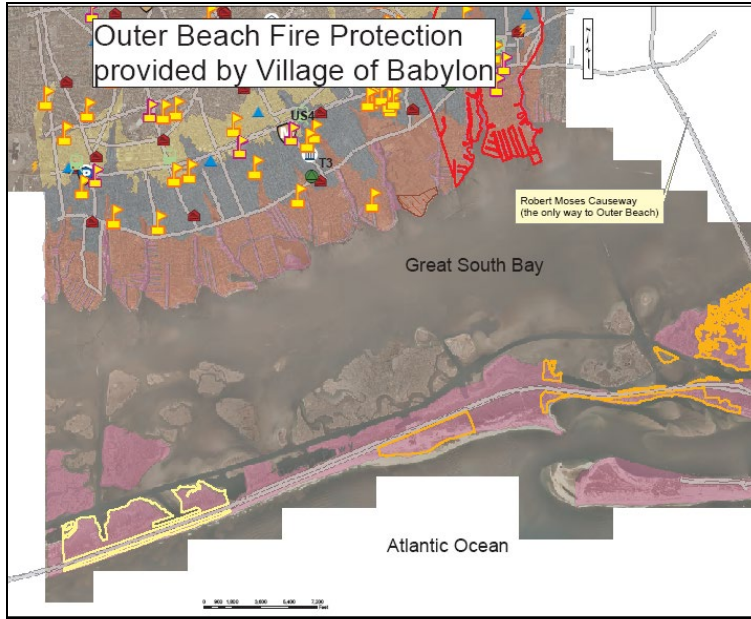


The area called Huntington South became Town of Babylon with its own governing board in 1872. The Village of Babylon incorporated in 1893. Following World War II, the area burst with activity providing homes for returning veterans. With convenient train service to New York City, commuters, then and now, find Babylon a great place to live and raise a family. People of renown who have lived here are Guglielmo Marconi, Robert Moses, and Robert Keeshan.

The Village of Babylon is located on the south shore and western border of Suffolk County. The Village is bordered on the south by the Atlantic Ocean. An 8.5-mile-long inhabited barrier island that prevents direct ocean wave impact along Babylon's South Shore lies between the Atlantic Ocean and the Great South Bay. This island, known as Jones Island, was created by the Long Island State Parks Commission from several smaller islands in the early 1900s. The waterfront area of the village is highly developed, primarily with residences, as depicted in the aerial photographs below, showing our frontage along the Great South Bay.



The Village of Babylon contains 12,166 people. Electric service is provided by the Long Island Power Authority (LIPA); water service is supplied by the Suffolk County Water Authority. The entire village is served by SCDPW Sewer District 3. The Village is characterized by many areas of high groundwater, and is served by public water. Most of the Village has predominantly sandy soil. The Village of Babylon's volunteer fire department provides protection and EMS for village residents, as well as two fire protection districts in the Town of Babylon, on the outer beach (see below):



The Village of Babylon’s downtown district is unique for Suffolk County¹. There are waterfront parks, marina, historic structures, and several areas of preserved open space. Following are pictures from the Village of Babylon’s Chamber of Commerce website illustrating this “treasure on the bay”:



The Village’s population has increased little over the past 20 years, as most land in the village was densely developed by 1975. Any growth in population since that time has occurred as a result of undocumented peoples residing without local authorization, yet, under the New York State home rule system, the Village is responsible for this population in case of natural disaster.

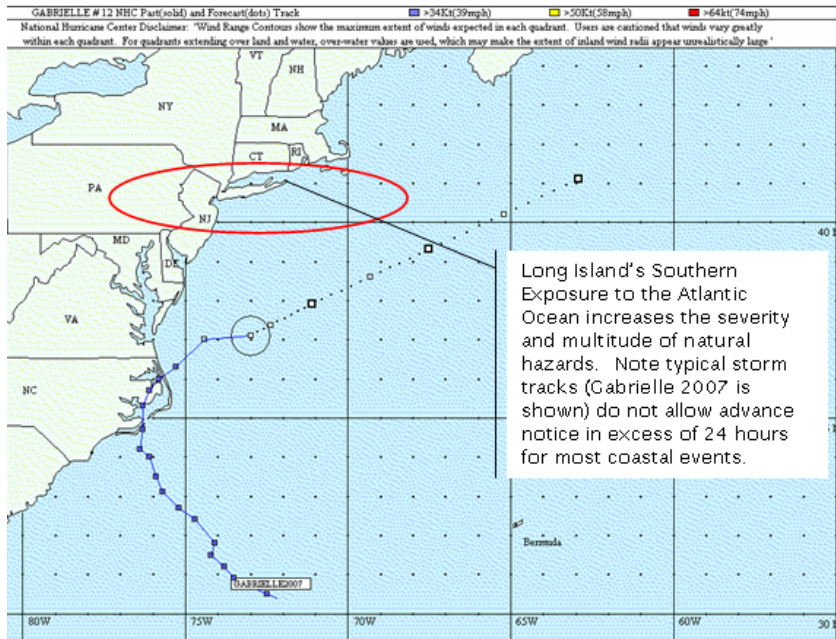
Though FEMA may typically consider life and safety issues beyond the jurisdiction of most hazard mitigation plans, the mitigation planning initiative that is most important to the life and safety of our residents could never be accounted for within any other FEMA or DHS response or preparedness plan. Not to stray into the territory of response plans, even with the best possible evacuation plan, and an unlimited amount of personnel to carry it out, the laws of physics still prevail. It is certainly possible, and even probable, based on documented weather patterns, that amount of time to evacuate will far exceed the amount of notice of a significant event. Thus, that is why the Village of Babylon turns to mitigation efforts, because if we do not reduce the exposure and vulnerability of our mainland population and infrastructure by securing our barrier islands, we will sustain

¹ New York Rising Community Reconstruction Program. “Conceptual Plan – Village of Babylon/West Babylon”. October 2013. http://stormrecovery.ny.gov/sites/default/files/crp/community/documents/babylon_conceptual_plan_110613.pdf





unprecedented loss of life, destruction of essential infrastructure, and devastation of our economy from which it will take many years to recover.



Background image is a screenshot from Hurrevac, which is used by Town of Babylon Emergency Preparedness throughout hurricane season for evacuation planning and decision-making.

The Village has a board which will be responsible for the adoption of this Hazard Mitigation Plan. The Village Board consists of an elected Mayor and 4 elected Trustees.

According to the U.S. Census, the 2010 population for the Village of Babylon was 12,166. The estimated 2017 population was 12,089, a 1.0 percent decrease from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 6.0 percent of the population is 5 years of age or younger and 14.0 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.4.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction's overall risk to its hazards of concern. Table 9.4-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. The figures at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development, where available. The recent and anticipated development depicted on these figures excludes the Suffolk County wastewater upgrades; refer to Section 4 (County Profile) for additional information on this development.



Table 9.4-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018		2019	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)												
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	36	31	13	13	21	19	14	12	1	1	6	6
Multi-Family	0	0	1	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0	0	0
Total Permits Issued	36	31	14	13	21	19	14	12	1	1	6	6
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development				
Recent Major Development and Infrastructure from 2015 to Present												
Rosebud Lane	Condominiums	14		6-1-006 to 6-1-014		.2% and 1% Flood Zones, NEHRP Class D, SLOSH categories 1-4, Moderate and high coastal risk hazard areas, Wildfire Intermix		Complete				
Araca Road	Residential	Subdivision		19-2-73		.2% and 1% Flood Zones, NEHRP Class D, Sea level rise 1 to 4 ft, SLOSH categories 1-4, Extreme coastal risk area		Under construction				
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												
Deer Park Avenue	Residential	3		004-02-058.001, 004-02-058.002		NEHRP Class D, SLOSH categories 3 & 4, Moderate coastal risk hazard areas		2 completed to date				
73 W Main Street	Commercial	1		10-3-39		NEHRP Class D, SLOSH categories 2-4, Moderate coastal risk area		Foundation approved				
150 E Main Street	Commercial	TBD		14-2-17		NEHRP Class D, SLOSH categories 2-4, Moderate and high coastal risk areas		Approved for 1 story medical				



Type of Development	2014	2015	2016	2017	2018	2019
75 Fire Island Avenue	Residential-0	Vacant Land	14-2-64.001	NEHRP Class D, SLOSH categories 2-4, Moderate coastal risk areas	Application for change of zone	
66 Cedar Lane	Residential	1	16-1-007	.2% and 1% Flood Zones, NEHRP Class D, Sea level rise 1 to 4 ft, SLOSH categories 1-4, High and extreme coastal risk hazard areas	Possible subdivision	

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.4.4 Capability Assessment

The Village of Babylon performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.4.4). The Village of Babylon identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Babylon and where hazard mitigation has been integrated.



Table 9.4-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
Codes, Ordinances, & Requirements							
Building Code	Yes	Building Construction and Fire Prevention, Code of the Village of Babylon, Chapter 96	Local	Building Inspector and Fire Inspector	Yes	Yes	-
Comment: This chapter shall provide the basic method for administration and enforcement of the New York State Uniform Fire Prevention and Building Code in the Village of Babylon and shall establish powers, duties and responsibilities in connection therewith.							
Zoning Code	Yes	Zoning, Code of the Village of Babylon, Chapter 365	Local	Building Inspector	No	Yes	-
Comment: The Board of Trustees of the Village of Babylon hereby finds that the use of and enjoyment of its Retail Business, Industrial and Marine Commercial Districts have intensified in recent years to such a degree that any further construction occurring in such districts can now so impact surrounding uses as to create unwarranted hazards which can impact on the ability of the Village to provide for the safety and general welfare of the people of the Village. Accordingly, the Board feels it is imperative that any exterior construction activity in such districts be subjected to the requirement of a building permit, so that a proper evaluation can be made with respect to such activity and its effect on the sensitive balance which must be maintained in order for such districts to continue to function with proper safeguards for all people enjoying the use of the Village.							
Subdivisions	Yes	Subdivision of Land, Code of the Village of Babylon, Chapter 311	Local	The Planning Board of the Village of Babylon.	No	Yes	-
Comment: Chapter 311 regulates the subdivision of land.							
Stormwater Management	Yes	Stormwater Management and Erosion and Sediment Control, Code of the Village of Babylon, Chapter 305	Local	Village Engineer and/or Building Inspector	Yes	Yes	-
<p>Comment: The purpose of this chapter is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the residents of the Village of Babylon. The chapter:</p> <p>A. Establish minimum stormwater and erosion and sediment control requirements in order to protect and safeguard the general health, safety, and welfare of the public and businesses located within the Village of Babylon by implementation of a stormwater management program (SWMP) that meets or exceeds the following six minimum control measures:</p> <ol style="list-style-type: none"> (1) Public education and outreach on stormwater impacts; (2) Public involvement/participation; (3) Illicit discharge detection and elimination; (4) Construction site stormwater runoff control; (5) Postconstruction stormwater management; (6) Pollution prevention/good housekeeping for municipal operations consistent with the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges From Municipal Separate Stormwater Sewer Systems (MS4s) GP-02-02, issued pursuant to Article 17, Titles 7 and 8, and Article 70 of the New York State Environmental Conservation Law (ECL) and the federal Clean Water Act (CWA) regulations for small municipal separate storm sewer systems (MS4s), or as amended or revised. <p>B. Require land development activities to conform to the substantive requirements of the New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities GP-02-01, or as amended or revised.</p> <p>C. Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and to maintain the integrity of stream channels.</p> <p>D. Minimize increases in pollution caused by stormwater runoff from land development activities that would otherwise degrade local water quality.</p>							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
<p>E. Minimize the total annual volume of stormwater runoff that flows from any specific site during and following development to the maximum extent practicable (MEP); and</p> <p>F. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.</p>							
Post-Disaster Recovery	No	-	-	-	No	-	-
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	Yes	-
Comment:							
Growth Management	No	-	-	-	No	-	-
Comment:							
Site Plan Review	Yes	Code of the Village of Babylon, Chapter 365, Article VI, 365-32	Local	Building Inspector	No	Yes	-
<p>Comment: In all cases where this chapter requires submission of a site plan to the Village of Babylon, such site plan shall be submitted with and as a part of the application for a building permit to the Building Inspector by the applicant and thereafter referred by the Building Inspector to the Planning Board, or other reviewing agency which may be designated by the Village, for recommendations in connection therewith. No building permit shall be issued by the Building Inspector except in conformity with the approved site plan.</p>							
Environmental Protection	Yes	Freshwater Wetlands, Code of the Village of Babylon, Chapter 177	Local	Board of Trustees	Yes	Yes	-
<p>Comment: It is declared to be public policy of the Village of Babylon to preserve, protect and conserve freshwater wetlands and the benefits derived therefrom, to prevent the despoliation and destruction of freshwater wetlands, and to regulate the development of such wetlands in order to secure the natural benefits of freshwater wetlands, consistent with the general welfare and beneficial economic, social and agricultural development of the Village of Babylon.</p>							
Flood Damage Prevention	Yes	Flood Damage Prevention, Code of the Village of Babylon, Chapter 171	Local	Building Inspector	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	-
<p>Comment: Chapter 171 is adopted in order to:</p> <p>A. To protect human life and health;</p> <p>B. To minimize expenditure of public money for costly flood control projects;</p> <p>C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;</p> <p>D. To minimize prolonged business interruptions;</p> <p>E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in areas of special flood hazard;</p> <p>F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;</p> <p>G. To provide that developers are notified that property is in an area of special flood hazard; and,</p> <p>H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.</p>							
Municipal Separate Storm Sewer System (MS4)	Yes	Illicit Discharges, Activities and	Local	Village Engineer and/or	Yes	Yes	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
		Connections, Code of the Village of Babylon, Chapter 306		Building Inspector			
<p>Comment: The purpose of this chapter is to provide for the health, safety, and general welfare of the residents and general public of the Village of Babylon through the regulation of nonstormwater discharges to the Village of Babylon municipal separate stormwater drainage system (MS4) to the maximum extent practicable as required by § 402 of the Clean Water Act and the New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s), Permit GP-0-10-002, issued pursuant to Article 17, Titles 7 and 8, and Article 70 of the Environmental Conservation Law or as amended or revised. This chapter establishes methods for controlling the introduction of pollutants into the Village of Babylon MS4 system in order to comply with the requirements of the SPDES General Permit for Municipal Separate Storm Sewer Systems. The objectives of this chapter are:</p> <ul style="list-style-type: none"> To meet the requirements of the SPDES General Permit for Stormwater Discharges from the Village of Babylon MS4, in accordance with New York State Department of Environmental Conservation Permit No. GP-0-10-002 or as amended or revised; To regulate the contribution of pollutants to the Village of Babylon's MS4 since such systems are not designed to accept, process or discharge nonstormwater wastes; To prohibit Illicit Connections, Activities and Discharges to the Village of Babylon's MS4; To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this chapter; and To promote public awareness of the hazards involved in the improper discharge of trash, yard, waste, lawn chemicals, pet waste, wastewater, grease and oil, petroleum products, cleaning products, paint products, hazardous waste, sediment and any other pollutants into the Village of Babylon's MS4. 							
Emergency Management	Yes	Fire Districts, Code of the Village of Babylon, Chapter 162	Local	Board of Trustees	Yes	Yes	-
<p>Comment: The Fire District of the Village of Babylon shall consist of:</p> <ul style="list-style-type: none"> All areas now or hereafter located in the following use districts: Residence O Districts, Residence M Districts, Marine Commercial Districts, Retail Business Districts and Industrial Districts. All areas now or hereafter located in any use district improved with any building now or hereafter erected thereon used in any manner for public assembly, dwellings for two or more families, nursing homes, convalescent homes and such other purposes in accordance with special permission of the Board of Appeals granted under the provisions of Chapter 365, Zoning, and any amendments thereto. 							
Climate Change	No	-	-	-	Yes	-	-
Comment:							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment:							
Other	No	-	-	-	No	-	-
Comment:							
Planning Documents							
Comprehensive Plan	Yes	1998	Local and County	Town of Babylon	No	County Plan, yes	-
<p>Comment:</p> <ul style="list-style-type: none"> A Plan for the Future of the Town of Babylon, Draft Comprehensive Plan, March 1998 Suffolk County Comprehensive Plan 2035, August 2011 							
Capital Improvement Plan	No	-	-	-	No	-	-
Comment:							



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
Disaster Debris Management Plan	Yes	Suffolk County Multi-Jurisdictional Debris Management Plan	County, Local	Suffolk County FRES	No	Yes	-
Comment: This NYS and FEMA approved comprehensive Multi-Jurisdictional Debris Management Plan was developed through the cooperative efforts of Suffolk County and each of the ten (10) Towns, working together in conjunction with partners from private, state and federal agencies.							
Floodplain or Watershed Plan	No	-	-	-	No	-	-
Comment:							
Stormwater Plan	Yes	Stormwater Plan	Local	Administration	No	Yes	-
Comment: The Stormwater Plan was adopted pursuant to NYS Phase II implementation of the Federal Clean Water Act							
Open Space Plan	No	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	-	-	Yes	-	-
Comment:							
Urban Water Management Plan	No	-	-	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	-	-	No	-	-
Comment:							
Economic Development Plan	No	-	-	-	No	-	-
Comment:							
Shoreline Management Plan	No	-	-	-	Yes	-	-
Comment:							
Community Wildfire Protection Plan	No	-	-	-	No	-	-
Comment:							
Forest Management Plan	No	-	-	-	No	-	-
Comment:							
Transportation Plan	No	-	-	-	No	-	-
Comment:							
Agriculture Plan	No	-	-	-	No	-	-
Comment:							
Other	Yes	Noted in comment	Local, Regional	Various agencies	Other	Yes	Noted in comment



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
Comment: <ul style="list-style-type: none"> Reformulation Study, Fire Island Inlet to Montauk Point (FIMP) Reformulation Study Environmental Study, Environmental Study of the Barrier and Bay Island Communities, 1994 Long Island South Shore Estuary Reserve Comprehensive Management Plan							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	Suffolk County Comprehensive Emergency Management Plan (2018)	Suffolk County and Associated Jurisdictions	Suffolk FRES	Yes	Yes	-
Comment: The County Comprehensive Emergency Management Plan (CEMP) describes the emergency obligations of County government and its capability and capacity to undertake emergency assignments or acquire those resources necessary to support its emergency mission. The Concept of Operations of the CEMP describes the management of emergencies within the National Incident Management System (NIMS) and details emergency management programmatic efforts to accommodate present standards.							
Strategic Recovery Planning Report	Yes	NY Rising Community Reconstruction Plan - Village of Babylon/West Babylon (2014)	Local	Various entities within the Village	-	Yes	-
Comment:							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-	Yes	-	-
Comment:							
Post-Disaster Recovery Plan	No	-	-	-	No	-	-
Comment:							
Continuity of Operations Plan	No	-	-	-	No	Yes	2020-Village of Babylon-008
Comment:							
Public Health Plan	No	-	-	-	No	-	-
Comment:							
Other	No	-	-	-	No	-	-
Comment:							

Table 9.4-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Building Department.
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Built out.



Administrative and Technical Capability

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

Table 9.4-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	Yes	Beautification Committee
Economic Development Commission/Committee	No	Rely
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Motorized siren, air horns, email blast, schools have an alert system, county has 911 (Code Red), social media
Maintenance programs to reduce risk	Yes	Stormwater and tree trimming
Mutual aid agreements	Yes	Town of Babylon, High School, and American Legion shared service agreements
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Contract Planners/Engineers
Engineers or professionals trained in building or infrastructure construction practices	Yes	Contract Engineers
Planners or engineers with an understanding of natural hazards	Yes	Contract Planners/Engineers
Staff with expertise or training in benefit/cost analysis	Yes	Assistant to Mayor
Professionals trained in conducting damage assessments	Yes	Building Department
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Town supplies GIS Maps on an informal basis for emergency preparedness and fire protection needs Contract GIS available
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	Building Inspector
Surveyor(s)	Yes	Contract Surveyors
Emergency Manager	Yes	Mayor
Grant writer(s)	Yes	Assistant to Mayor
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

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



Table 9.4-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	Yes, have utilized for traffic safety measures, optical pre-emption, and roadway
Stormwater utility fee	No
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	No
Other federal or state Funding Programs	FEMA sponsored grant funding County sponsored grant funding for roadways improvements and stormwater remediation
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Mitigation grant programs

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Babylon.

Table 9.4-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Mayors Office
Personnel skilled or trained in website development?	Utilize the Town through a contract.
Hazard mitigation information available on your website; if yes, describe	Yes, information on hazards.
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Facebook
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Newsletter
Warning systems for hazard events; if yes, briefly describe.	Motorized siren, air horns, email blast, schools have an alert system, county has 911 (Code Red), social media
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Unknown
Other	None

Community Classifications

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



Table 9.4-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	NP	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	4/4	2005
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	2	2015
NYSDEC Climate Smart Community	NP	-	-
Storm Ready Certification	NP	-	-
Firewise Communities classification	NP	-	-
Other	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.4-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Coastal Erosion	Medium
Cyber Security	Medium
Disease Outbreak	Medium
Drought	Medium
Earthquake	Medium
Expansive Soils	Medium
Extreme Temperature	Medium
Flood	Medium
Groundwater Contamination	Medium
Hurricane	Medium
Infestation and Invasive Species	Medium
Nor’Easter	Medium
Severe Storm	Medium
Severe Winter Storm	High
Shallow Groundwater	Medium
Wildfire	Medium

- *High Capacity exists and is in use
- Medium Capacity may exist; but is not used or could use some improvement
- Low Capacity does not exist or could use substantial improvement
- Unsure Not enough information is known to assign a rating

The Village of Babylon has access to resources to determine the possible impacts of climate change upon the municipality and the administration is supportive of integrating climate change in policies or actions. Climate



change is already being integrated through raising roadways, bulkhead replacement/improvements, and installation of backflow preventers.

9.4.5 National Flood Insurance Program

This section provides specific information on the management and regulation of the regulatory floodplain.

NFIP Floodplain Administrator (FPA)

Steve Fellman, Building Inspector

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Babylon.

Table 9.4-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Village of Babylon	1240	1,827	\$97,313,420	240

Source: FEMA 2020

Notes: According to FEMA statistics as of 7/13/2020

RL Repetitive Loss

Flood Vulnerability Summary

Between 500-800 homes were damaged during Hurricane Sandy. Almost two years later, 5 Substantial Damage Estimates are still being done each week. Homes that are slab on grade make it difficult to prove damage. All who sustained damage following Sandy are interested in mitigation. Funding for projects includes Federal flood insurance Increased Cost of Compliance, flood insurance, New York Rising, and private funds.

A list of all ICC letters and building permits is kept to track properties sustaining flood damage. Tracking the progress of these elevations will be the responsibility of the new Building Inspector.

Substantial Damage Estimates are done in the following way: a chart is put together for what the cost would be per square foot, this amount is then compared to the old cost of the house to determine if the house is Substantially Damaged.

Resources

The community FDPO identifies the Building Inspector as the local NFIP Floodplain Administrator, currently Steve Fellman, for which floodplain administration is an auxiliary duty.

In addition to the NFIP FPA, the community has four supplementary staff members for which NFIP is an auxiliary duty. These staff members keep track of ICC and other NFIP components. A new Building Inspector is being brought in using grant money to do a block by block analysis of where flood-damaged homes stand regarding flood mitigation projects.

Duties and responsibilities of the NFIP Administrator are permit review, inspections, damage assessments, and community meetings to disseminate FEMA information.



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

In the Village of Babylon, the following educational and/or outreach activities related to the NFIP: community meetings, newsletters, information posted to Village website, permit review, inspections, damage assessments, and community meetings to disseminate FEMA information.

After Hurricane Sandy a major barrier to running an effective floodplain management program was the inability to get information from FEMA. Expectations from FEMA and now understood. There are no barriers within the community.

Compliance History

Village of Babylon joined the NFIP on August 1, 1977, and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The community's Flood Damage Prevention Ordinance (FDPO), found at Chapter 171 of the local code, was last updated on August 11, 2009.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The last Community Assistance Visit (CAV) took place on June 11, 2014. The municipality sees no specific need for a CAV at this time.

Regulatory

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on August 11, 2009, and is found at Chapter 171 of the local code.

FEMA and New York State floodplain management regulations and ordinances are exceeded by requiring elevations to be at least Base Flood Elevation + 3ft. Height restrictions have been relaxed as homes can now be up to 30 feet above freeboard. Previously homes could only be a maximum of 35 feet above the crown of the road. This increase allows homeowners across the board to be able to raise their homes without needed approval so long as the home is being built in the same footprint as before.

Community Rating System

The Village of Babylon does not participate in the Community Rating System. Additional training and information regarding floodplain management and the Community Rating System (CRS) would be welcomed.

9.4.6 Integration with Other Planning Initiatives

As this HMP update is implemented, the Village of Babylon will use information from the plan as the best available science and data for natural hazards. The capability assessment presented in this annex identifies codes, plans, and programs that provide opportunities for integration. The Suffolk County and local action plans developed for this HMP update actions related to plan integration, as well as progress on these actions, will be reported through the progress reporting process described in Volume I. New opportunities for integration also will be identified as part of the annual progress report.

Existing Integration

- **Planning Board:** Pursuant to the provisions of Article 7 of the Village Law of the State of New York, the Planning Board of the Village of Babylon, Suffolk County, New York, hereby appointed, shall have full power and authority to prepare a Master Plan; to make such investigations, maps and reports and



recommendations in connection therewith relating to the planning and development of the Village as it deems desirable; and to report upon matters referred to it by the Board of Trustees

Opportunities for Future Integration

- **Community Rating System (2020-Village of Babylon-006):** The Village is investigating if entry into the CRS program is warranted. The Village has attended recent workshops on the matter.

9.4.7 Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

The Village follows the County’s evacuation planning procedures.

Sheltering

The Village uses the American Red Cross shelters. The American Legion is used as an unofficial staging area.

Temporary Housing

Locust Avenue Parking lot holds 346 cars and has power. The Village has used this location as a staging area for debris in the past.

Permanent Housing

The Village of Babylon is fully built out and no additional space exists for relocation of permanent housing.

9.4.8 Hazard Event History Specific to the Village of Babylon

Suffolk County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Babylon’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Suffolk County. Table 9.4-11 provides details regarding municipal-specific loss and damages the Village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.4-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
February 8 – 9, 2013	Severe Winter Storm and Snowstorm (FEMA DR-4111)	Yes	Low pressure that formed along the northern Gulf coast by the morning of Thursday, February 7, 2013 moved northeast to near Cape Hatteras by the morning of Friday, February 8, 2013 . The low then rapidly intensified while moving northeast to a position east of Cape Cod by the morning of Saturday, February 9, 2013, producing very heavy	Although the County was impacted, Village of Babylon did not report any damages.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			snowfall and blizzard conditions across central and eastern Long Island on February 8th and 9th, and winter storm conditions across the rest of southeast New York.	
March 14 – 15, 2017	Severe Winter Storm and Snowstorm (FEMA DR-4322)	Yes	On Tuesday, March 14th, rapidly deepening low pressure tracked up the eastern seaboard resulting in damaging winds in Suffolk County.	Although the County was impacted, Village of Babylon did not report any damages.
March 2, 2018	High Wind	No	A deep area of low pressure passed off the coast. There were wind gusts of over 60 mph reported. Trees were downed	There was over \$10K in property damage reported in the area.
October 2, 2018	Thunderstorm Wind, Tornado, Lightning	No	An approaching cold front triggered severe thunderstorms across southeastern New York, producing tornados. Trees reported down by media in Babylon	\$3K in property damage was reported.
December 30, 2019	Strong Wind	No	Strong winds occurred ahead of low pressure and frontal boundary. Trees reported down on Deer Park Avenue.	\$3K in property damage was reported.

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable

9.4.9 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes critical facility and community lifeline flood exposure, and the hazards of greatest concern and risk to the Village of Babylon. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.



Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood event, or worst damage scenario. For those that do not meet these criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities and community lifelines located in the 1-percent and 0.2-percent floodplain. It also summarizes if the facility is already mitigated in compliance with NYS standards (i.e., to the 0.2-percent annual chance event or worse-case scenario), or if a new mitigation action is proposed in the plan update.

Table 9.4-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure			Complies with NYS Standards	Addressed by Proposed Action
		1% Event		0.2% Event		
		A-Zone	V-Zone			
Babylon Beach House Home for Adults*	Senior Facility	X	-	X	Unknown	2020-Village of Babylon-009
Park Avenue Bridge*	Transportation	X	-	X	Yes, roadways and bridges have been redesigned in last several years.	-
Argyle Creek Bridge*	Transportation	X	-	X	Yes, roadways and bridges have been redesigned in last several years.	-
Belton Road*	Transportation	X	-	X	Yes, roadways and bridges have been redesigned in last several years.	-

Source: Suffolk County 2020; FEMA 2009

Notes: x = Facility is located in the floodplain boundary.

*Community Lifeline



Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Suffolk County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Village of Babylon. The Village of Babylon has reviewed the county hazard risk/vulnerability risk ranking table and provided input to its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the Village of Babylon indicated the following:

- The Village agreed with the calculated hazard rankings.

Table 9.4-13. Hazard Ranking

Coastal Erosion High	Cyber Security Medium	Disease Outbreak Medium	Drought Low	Earthquake Medium	Expansive Soils Low
Extreme Temperature Medium	Flood High	Groundwater Contamination Medium	Hurricane High	Infestation and Invasive Species Medium	Nor'Easter High
	Severe Storm Medium	Severe Winter Storm Medium	Shallow Groundwater Medium	Wildfire Medium	

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Village has aging bulkheads but these bulkheads are privately owned. The Village plans to increase outreach to bulkhead owners.
- Various roadways are low lying and close to sea level, resulting in flooding.

9.4.10 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2014 HMP. Actions that are carried forward as part of this plan update are included in the updated mitigation strategy table



(Table 9.4.15). 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 9.4-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
BV-1 (Sandy HMGP LOI # 2005)	Village of Babylon Back-Up Power for Critical Facilities	All	Village of Babylon		Complete; Village hall, highway department and firehouse.	Cost		1. Discontinue 2. Complete 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-2 (NEW VB-1)	Elevation of Lighthouse Road.	Coastal Erosion, Hurricane, Nor'Easter, Severe Storm, Flood	Village of Babylon		In Progress	Cost		1. Include in 2020 HMP 2. To be completed Summer 2020 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-3 (NEW VB-2)	Elevation of Kittywake Road.	Hurricane, Nor'Easter, Severe Storm, Flood	Village of Babylon		No Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
	Increase structural stability and drainage capacity of culverts spanning tidal tributaries and	Nor'Easters; Coastal Erosion; Flooding;	NYSDOT, NYS Parks, SCDPW Highways, NYSDEC		In Progress Long Island Railroad. Railroad and Trolley Line	Cost		1. Include in 2020 HMP 2. Complete action for Long Island Railroad bridge and Trolley Lane 3.
						Level of Protection		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
BV-4 (Former BV-1 ²)	supporting critical evacuation and response routes.	Shallow Groundwater			Road were not addressed.	Damages Avoided; Evidence of Success		Walkway goes under. Remove concrete walkway and place a wood deck instead to increase volume of water.
BV-5 (former VB-3)	Re-design and re-enforce dam/spillway at Argyle Lake to reduce risk of failure, increase stormwater retention, and reduce upstream flooding, and protect critical evacuation and response routes	Nor'Easters; Coastal Erosion; Hurricane; Flooding; Severe Storm; Shallow Groundwater	Village of Babylon, Town, NYSDOT, NYSDEC, SCDPW		No progress	Cost		1. Include in 2020 HMP 2. NY Rising project underway to add additional floodgate at Lake. Should support this action. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-6 (former BV-4 Modified)	Coordinate dredging activities at the mouths of tidal tributaries with the both the County and the US Army Corps of Engineers	Nor'Easters; Hurricane; Flooding; Shallow Groundwater	SCDPW		In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		

² This mitigation initiative incorporates strategies proposed in the Conceptual Plan.



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
BV-7 (former BV-9 ² Modified)	Design or enhance existing municipal drainage systems to allow for increased carrying capacity of the drainage system	Nor'Easters, Coastal Erosion, Hurricane, Flooding, Severe Storms, Shallow Groundwater	Village		Ongoing Capability; when doing maintenance. Go from 10-12. Smooth interior.	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-8 (former BV-11 Modified)	Identify and prioritize roads that are vital/critical to evacuation and local community operations and elevate the top 3 in order to allow for safe egress of residents prior to, during and post significant storm events	Nor'Easters, Coastal Erosion, Hurricane, Flooding, Severe Storms, Shallow Groundwater	Village		In Progress.	Cost		1. Discontinue 2. 3. Repetitive action to BV-3
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-9 (NEW)	Support the mitigation of vulnerable structures via retrofit (e.g. elevation, flood-proofing) or acquisition/relocation to protect structures from future damage, with repetitive loss and severe repetitive loss properties as a priority when applicable. Phase 1: Identify appropriate candidates and determine most cost-effective mitigation option (in progress). Phase 2: Work with the property owners to implement selected action based on	Flood, Coastal Erosion, Hurricane, Nor'Easter, Severe Storm, Wildfire, Winter Storm	Town/Village Engineering via NFIP FPA) with NYSOEM, FEMA support		In Progress.	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
	available funding and local match availability.							
BV-10 (NEW)	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: <ul style="list-style-type: none"> Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) County-Wide Debris Management Plan Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of 	All Hazards	Suffolk County, as supported by relevant local department leads,		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
	private property owners) <ul style="list-style-type: none"> Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster) Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan).							
BV-11 (NEW)	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.	Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter	PSEG, County		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-12 (former BV-16 Modified)	Investigate the benefits of the Villages participation in the National Flood Insurance (NFIP) and the Community Rating System (CRS) Programs	Nor'Easters; Coastal Erosion; Hurricane;	FEMA NFIS		In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Damages Avoided; Evidence of Success	
	which promote the property owners purchase of flood insurance. Work towards the goal to obtain a CRS rating which allows the purchase of flood insurance at discounted rates.	Flooding; Severe Storms				Damages Avoided; Evidence of Success		
BV-13 (former BV-19 Modified)	Support the mitigation of properties within the floodplain, including those that have been identified as repetitive loss, via acquisition/relocation, or elevation depending on feasibility. Prioritize the properties in need of mitigation.	Flood, Nor'Easter, Hurricane, Severe Weather	Village		In Progress	Cost		1. Discontinue 2. Repetitive to action BV-9 3. Repetitive to action BV-9
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-14 (former BV-20) Modified	Work together with the County and others to bring CRS training/workshops into the community where appropriate community officials and staff will actively participate.	Flood, Nor'Easter, Hurricane, Severe Weather	Village		Ongoing Capability	Cost		1. Discontinue 2. Ongoing Capability 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-15 (former BV-5 Modified)	Augment existing programs by adopting and actively participating in and implementing the Countywide Debris Management Plan with	Nor'Easters, Severe Winter Storms, Hurricane,	NYS Agriculture & Markets; USDA (APHIS)		Complete	Cost		1. Discontinue 2. Complete 3. Complete
						Level of Protection		



Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Damages Avoided; Evidence of Success		
	the target to achieve containment of Asian Beetle, and improved post-disaster debris management	Flooding, Severe Storms				Damages Avoided; Evidence of Success		
BV-16 (former BV-8 Modified)	Institute a continuing education program for County and community staff to become certified in benefit cost analysis and floodplain management with the goal to become certified floodplain managers. Establish and maintain a schedule of on-going training classes to obtain and maintain these certifications	All Hazards			In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
BV-17 (former VB-13)	Develop a post-disaster action plan for coastal storm events that will address the local government operations post disaster.	All Hazards	Village		In Progress.	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Babylon has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2014 HMP:

- The Village of Babylon has elevated numerous roads. The roads have been elevated 18” in the gutter and 24’ on the roadway crown.
- The Village pool is located on the bayfront and is flood prone. The bulkhead around the facility has been raised to the 100-year flood event.

Proposed Hazard Mitigation Initiatives for the HMP Update

The Village of Babylon participated in a mitigation action workshop in June 2020 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.4-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Babylon would like to pursue in the future to reduce the effects of hazards. 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. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6 (Mitigation Strategy), fourteen criteria are used to evaluate and prioritize each proposed mitigation action. A numeric factor is assigned (-1, 0, or 1) to each criterion to provide a relative indication of the opportunities and constraints of each action. A numerical sum of the input provides the basis of the prioritization of actions wherein each action is assigned a category of Low, Medium, or High to indicate an implementation hierarchy. A High priority action indicates the jurisdiction will prioritize its implementation and apply for funding, if needed, as opportunities become available during the plan period of performance. This does not prevent the jurisdiction from implementing other ranked actions; however, this provides a snapshot of implementation priority at the time of this plan update.

Table 9.4-16 provides a summary of the evaluation and prioritization for each proposed mitigation initiative. Refer to the action worksheets at the end of this annex for more details on the high-ranked hazards identified first for implementation.



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Village of Babylon-001	Elevation of Roadways	1, 2, 7	Flood, Severe Storm	<p>Problem: Numerous roadways in the Village are low-lying and prone to flooding. High priority roadways must be kept flood free to allow for evacuations.</p> <p>Solution: The Village will conduct engineering studies to determine the proper elevation roadways must be raised to. The Village will raise the elevation of roadways that are vital/critical to evacuation and local community operations to allow for safe egress of residents prior to, during and post significant storm events. The following floodprone roadways will be targeted for elevation:</p> <ul style="list-style-type: none"> • Lighthouse Road • Kittywake Road • Additional roadways to be identified. 	Yes, evacuation routes	None	Within 2 years	Public Works	TBD by engineering studies	Reduction in flooding on roadways, evacuation kept viable	HMGP, BRIC, CDBG, Village budget	High	SIP	PP
2020-Village of Babylon-002	Increase drainage capacity of culverts spanning tidal tributaries	1, 2	Flood, Severe Storm	<p>Problem: Overpasses of tidal tributaries can restrict volume of water that can pass downstream. Restrictions can lead to flooding. The Locust Avenue bridge</p>	Yes	May require permitting	Within 5 years	Long Island Railroad, Engineer, Village Administration	High	Increased volume for downstream flow, reduction in flooding.	HMGP, BRIC, CDBG, Village budget	High	SIP	PP, SP



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<p>has already been addressed through NY Rising funds. The Long Island Railroad bridge and the Trolley Line Road bridge are in need of being addressed.</p> <p>Solution: The Village will work with the Long Island Railroad to propose the removal of the concrete walking path beneath the Railroad bridge. The walking path would be replaced with a raised wooden bridge. The Village will also complete upgrades to the Trolley Line Road bridge in the same method as the Locust Avenue bridge.</p>										
2020-Village of Babylon-003	Argyle Lake Spillway	1, 2	Flood, Severe Storm	<p>Problem: The dam/spillway at Argyle Lake is in need of redesign/reinforcement in order to reduce risk of failure. NY Rising funds have already made improvements on site through the addition of an additional floodgate.</p> <p>Solution: Complete redesign and reinforcement of the</p>	Yes	Depending on scale of improvements, may require permitting	Within 5 years	Engineer, Public Works	\$800,000	Dam failure avoided, flood risk reduced	HMGP, PDM, FMA, BRIC, Village budget	High	SIP	SP



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Village of Babylon-004	Repetitive loss mitigation	1, 2	Flood, Severe Storm	<p>Problem: Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims.</p> <p>Solution: Conduct outreach to 30 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase /moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	No	None	3 years	NFIP Floodplain Administrator, supported by homeowners	\$3Million	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	FEMA HMGP and FMA, local cost share by residents	High	SIP	PP
2020-Village of Babylon-005	Dredging of tidal tributaries	1, 3, 5	Flood, Coastal Erosion	<p>Problem: The Village has limited permitting allowances to complete dredging at lagoon entrances.</p>	No	Yes	Within 5 years	Village Administration	High	Reduction in flood risk, increased navigability	USACE, BRIC, Village budget	High	NSP	NR





Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<p>Silting of the tributaries leads to increased flood risk and navigational hazards.</p> <p>Solution: Coordinate dredging activities at the mouths of tidal tributaries with the both the County and the US Army Corps of Engineers.</p>										
2020-Village of Babylon -006	Investigate CRS entry	1, 6	Flood	<p>Problem: The Village has high flood risk and is looking to improve its floodplain management program.</p> <p>Solution: Investigate the benefits of the Villages participation in the Community Rating System (CRS) Program which promotes the property owners purchase of flood insurance. Work towards the goal to obtain a CRS rating which allows the purchase of flood insurance at discounted rates.</p>	No	None	Within 1 year	FPA, Administration	Staff time	Increased floodplain management capabilities	Village budget	High	LPR	PR
2020-Village of Babylon -007	Staff training.	6, 7	All Hazards	<p>Problem: Staff require additional training, particularly in floodplain management.</p> <p>Solution: Establish and maintain a schedule of on-going training classes to</p>	No	None	Ongoing once established	Administration	Staff time	Increased floodplain management capabilities	Village budget	High	LPR	PR



Table 9.4-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				obtain and maintain the Certified Floodplain Manager certifications.										
2020-Village of Babylon-008	Post-Disaster Action Plan	7, 8	All Hazards	<p>Problem: The Village lacks a post-disaster action plan.</p> <p>Solution: Develop a post-disaster action plan for coastal storm events that will address the local government operations post disaster.</p>	No	None	Within 2 years	OEM, Administration	Staff time	Increased floodplain management capabilities	Village budget	High	LP R	PR
2020-Village of Babylon-009	Critical Facilities Outreach	2, 6	Flood	<p>Problem: The Babylon Beach House Home for Adults is a critical facility located in the 100-year floodplain. The facility is privately owned.</p> <p>Solution: The FPA will conduct outreach to the facility managers to discuss their flood exposure and potential mitigation actions that could be taken.</p>	Yes	None	Within 6 months	FPA	Staff time	Facility managers made aware of flood exposure and potential flood mitigation	Village budget	High	EAP	PI

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program

Timeline:

The time required for completion of the project upon implementation





CRS	Community Rating System	HMGF	Hazard Mitigation Grant Program
DPW	Department of Public Works	PDM	Pre-Disaster Mitigation Grant Program
EHP	Environmental Planning and Historic Preservation		
FEMA	Federal Emergency Management Agency		
FPA	Floodplain Administrator		
HMA	Hazard Mitigation Assistance		
N/A	Not applicable		
NFIP	National Flood Insurance Program		
OEM	Office of Emergency Management		


Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes  Critical Facility located in 1% floodplain

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 (NSP) – 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

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9.4-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2020-Village of Babylon-001	Elevation of Roadways	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2020-Village of Babylon-002	Increase drainage capacity of culverts spanning tidal tributaries	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2020-Village of Babylon-003	Argyle Lake Spillway	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020-Village of Babylon-004	Repetitive loss mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2020-Village of Babylon-005	Dredging of tidal tributaries	1	1	1	1	1	0	0	1	1	1	1	0	1	1	11	High
2020-Village of Babylon-006	Investigate CRS entry	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2020-Village of Babylon-007	Staff training.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Village of Babylon-008	Post-Disaster Action Plan	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Village of Babylon-009	Critical Facilities Outreach	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.4.11 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.4-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES	
Coastal Erosion	2020-Village of Babylon-007, 2020-Village of Babylon-008		2020-Village of Babylon-005		2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-005		2020-Village of Babylon-008
Cyber Security	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Disease Outbreak	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Drought	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Earthquake	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Expansive Soils	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Extreme Temperature	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008



Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Flood	2020-Village of Babylon-006, 2020-Village of Babylon-007, 2020-Village of Babylon-008	2020-Village of Babylon-001, 2020-Village of Babylon-002, 2020-Village of Babylon-003, 2020-Village of Babylon-004	2020-Village of Babylon-005	2020-Village of Babylon-009	2020-Village of Babylon-006, 2020-Village of Babylon-007, 2020-Village of Babylon-008	2020-Village of Babylon-001, 2020-Village of Babylon-002, 2020-Village of Babylon-004	2020-Village of Babylon-009	2020-Village of Babylon-005	2020-Village of Babylon-002, 2020-Village of Babylon-003	2020-Village of Babylon-008
Groundwater Contamination	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008					2020-Village of Babylon-008
Hurricane	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008					2020-Village of Babylon-008
Infestation and Invasive Species	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008					2020-Village of Babylon-008
Nor'Easter	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008					2020-Village of Babylon-008
Severe Storm	2020-Village of Babylon-007, 2020-Village of Babylon-008	2020-Village of Babylon-001, 2020-Village of Babylon-002, 2020-Village of Babylon-003, 2020-Village of Babylon-004			2020-Village of Babylon-007, 2020-Village of Babylon-008	2020-Village of Babylon-001, 2020-Village of Babylon-002, 2020-Village of Babylon-004			2020-Village of Babylon-002, 2020-Village of Babylon-003	2020-Village of Babylon-008



Hazard	FEMA				CRS						
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES	
Severe Winter Storm	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Shallow Groundwater	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008
Wildfire	2020-Village of Babylon-007, 2020-Village of Babylon-008				2020-Village of Babylon-007, 2020-Village of Babylon-008						2020-Village of Babylon-008

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.



9.4.12 Staff and Local Stakeholder Involvement in Annex Development

The Village of Babylon followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Village departments, including: Public Works. The Superintendent of Public Works represented the community on the Suffolk County Hazard Mitigation Plan Planning Partnership, and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The following table summarizes who participated and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.4-18. Contributors to the Annex

Name	Title/Entity	Method of Participation
Skip Gardner	Superintendent, Public Works	Primary Point of Contact, attended plan participant meetings, provided impact data, contributed to mitigation strategy
Scott Glenn	Foreman, Public Works	Secondary Point of Contact, attended plan participant meetings, provided impact data, contributed to mitigation strategy

9.4.13 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Babylon that illustrate the probable areas that may be 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. The maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Babylon has significant exposure.



Figure 9.4-1. Village of Babylon Hazard Area Extent and Location Map 1

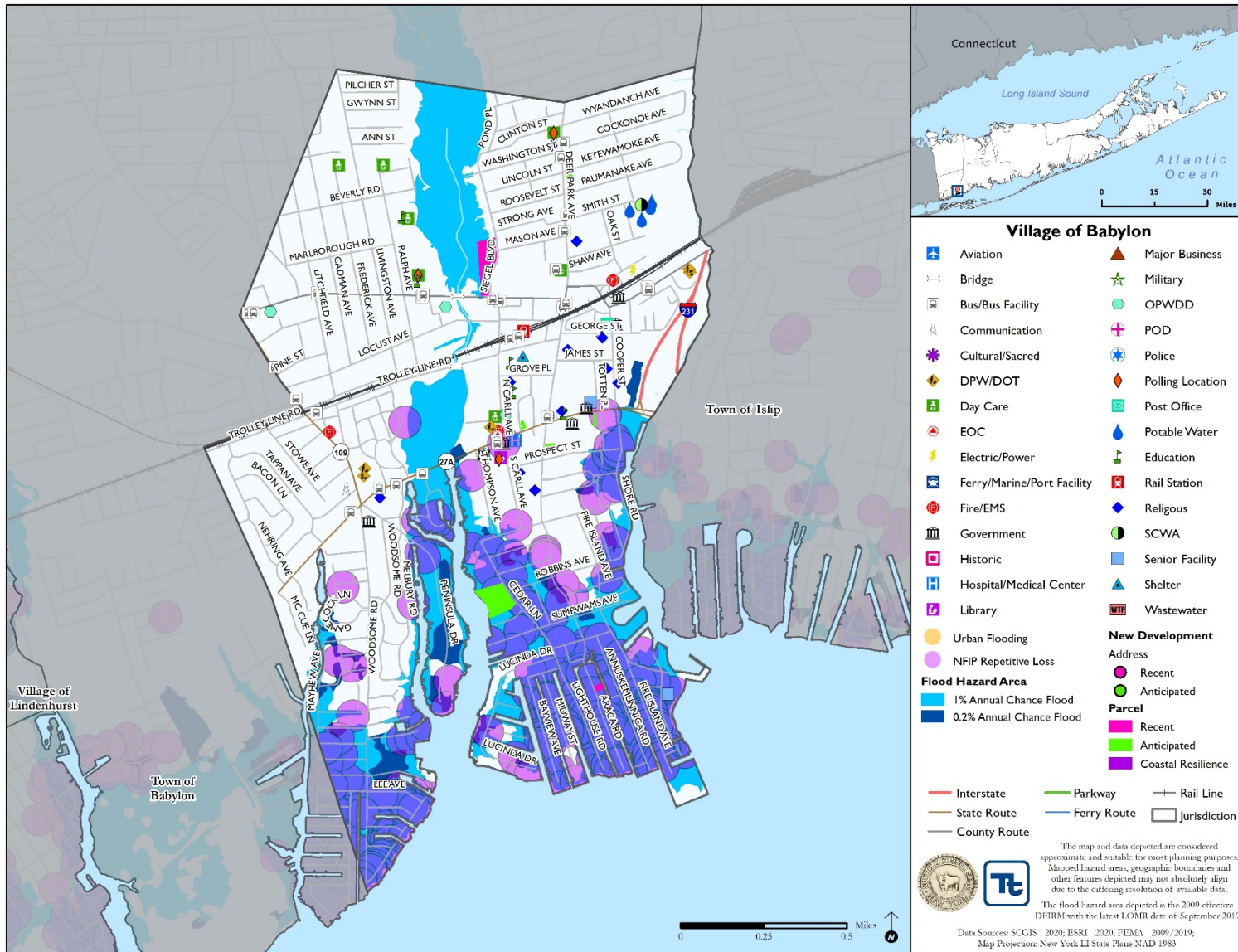




Figure 9.4-2. Village of Babylon Hazard Area Extent and Location Map 2

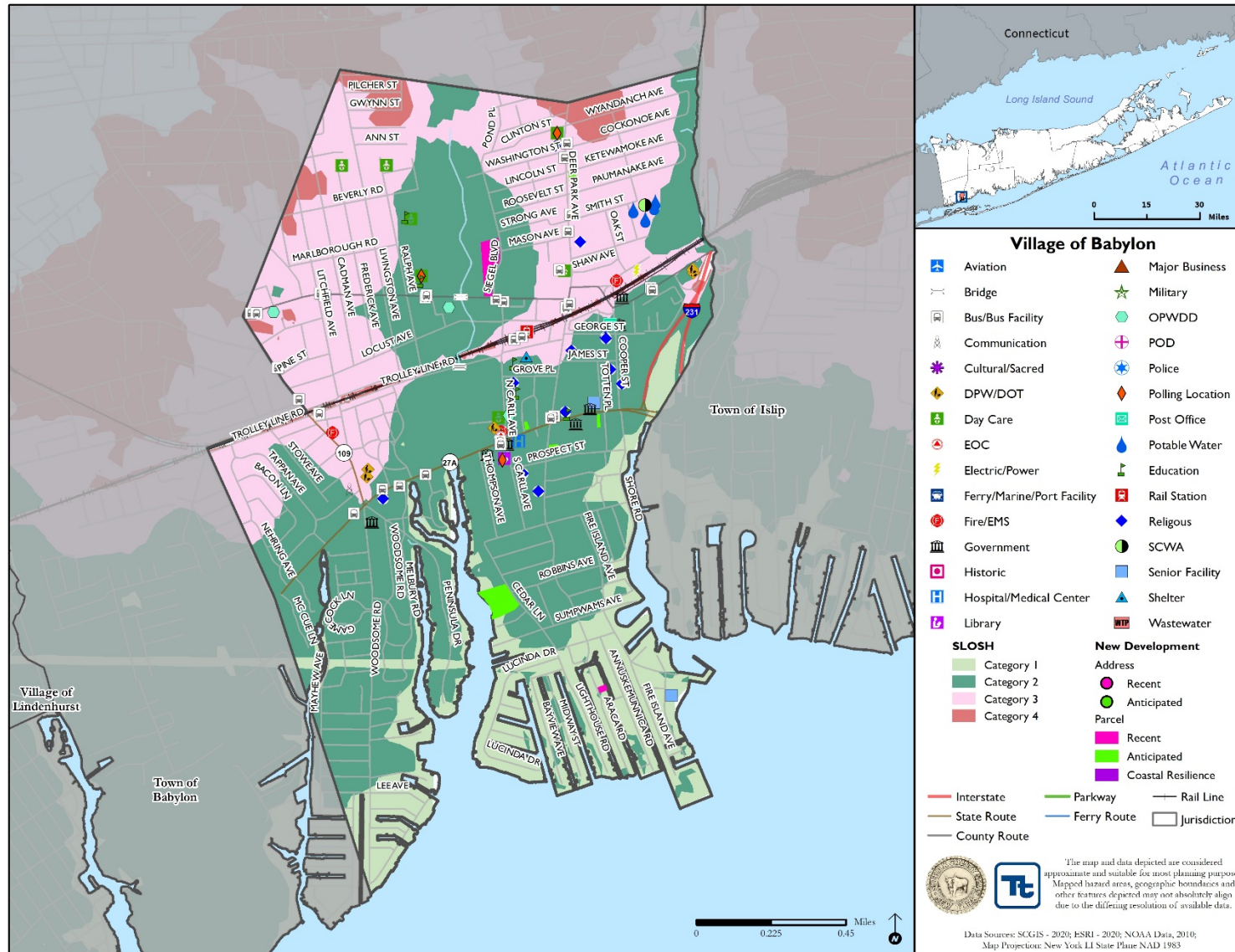




Figure 9.4-3. Village of Babylon Hazard Area Extent and Location Map 3

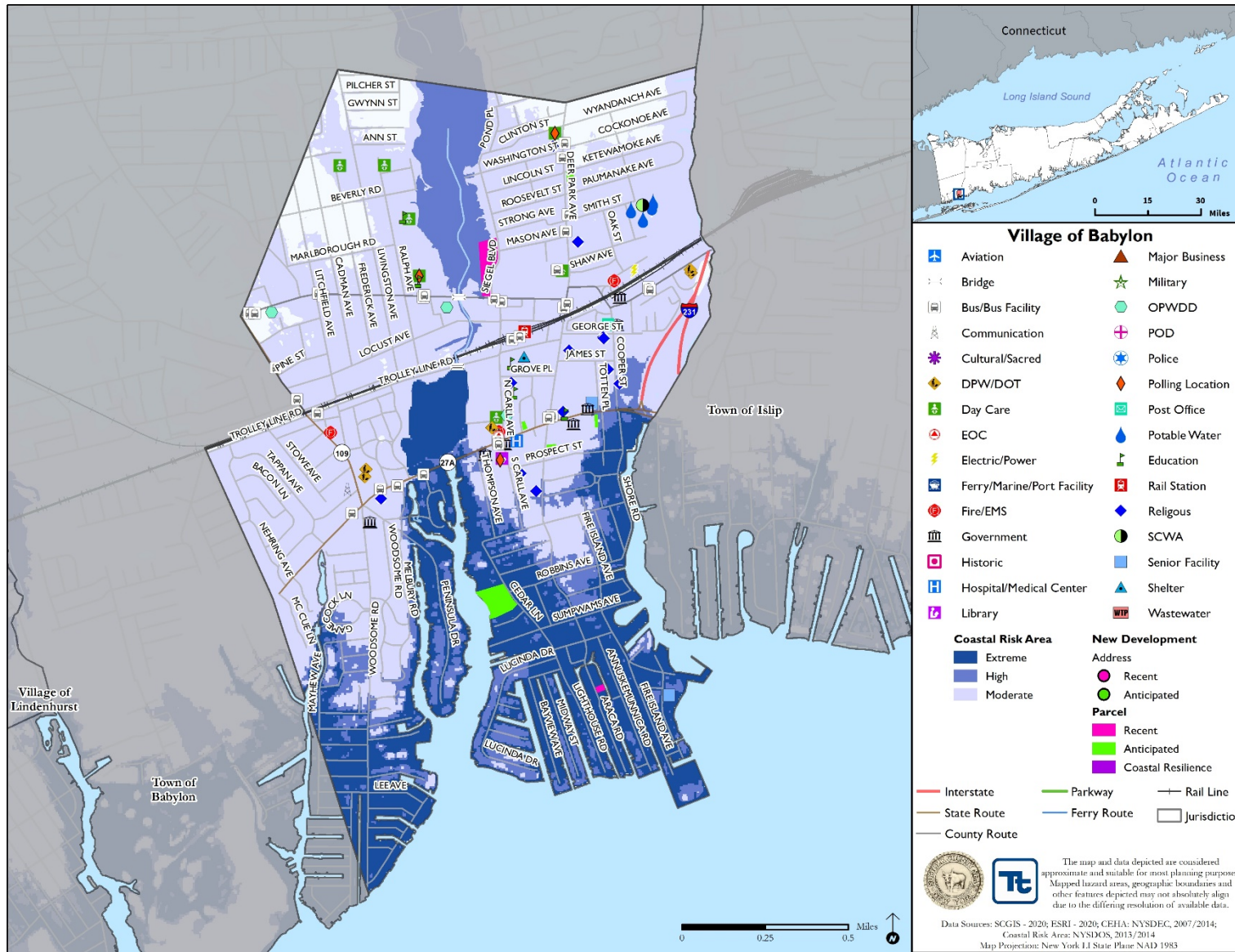




Figure 9.4-4. Village of Babylon Hazard Area Extent and Location Map 4

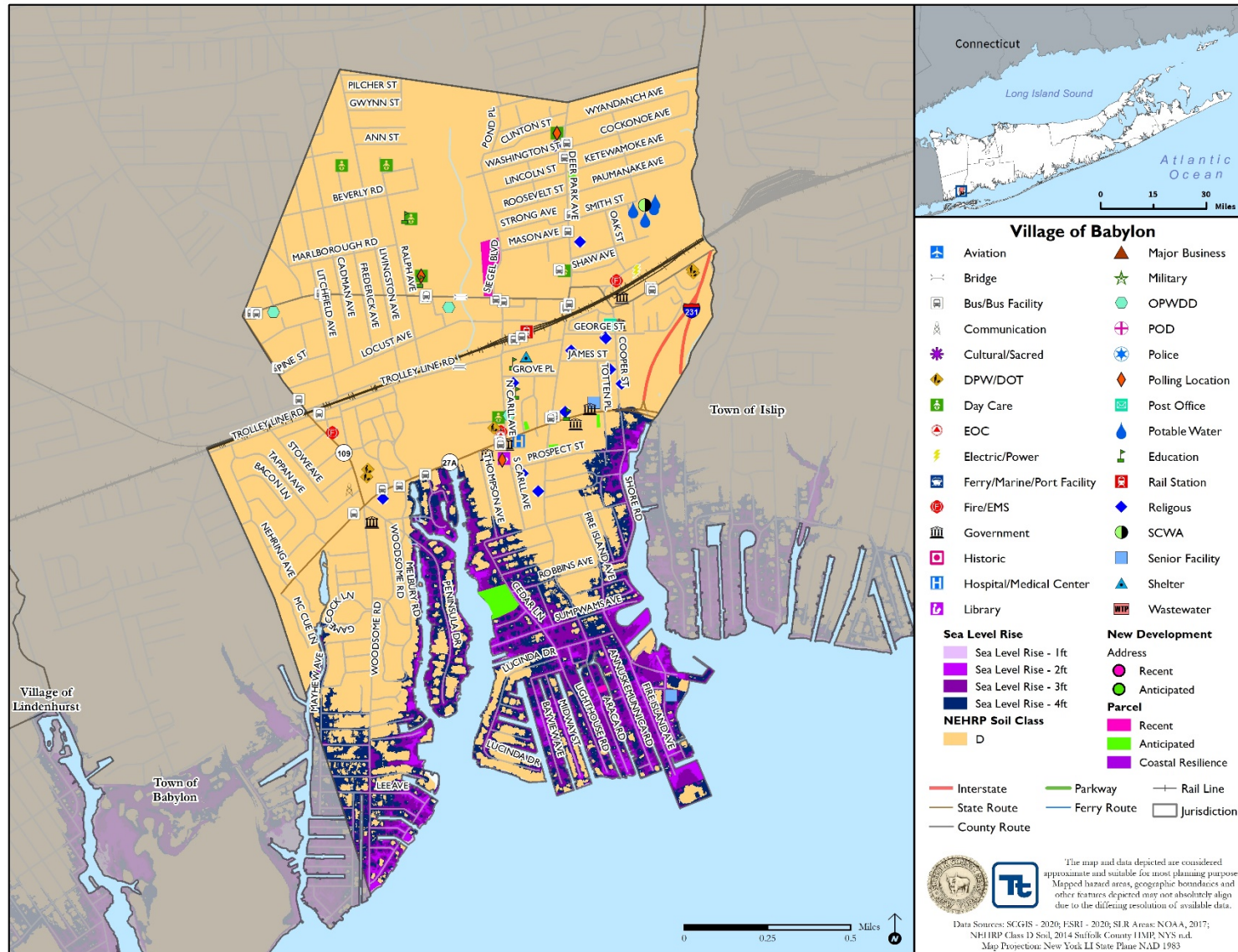
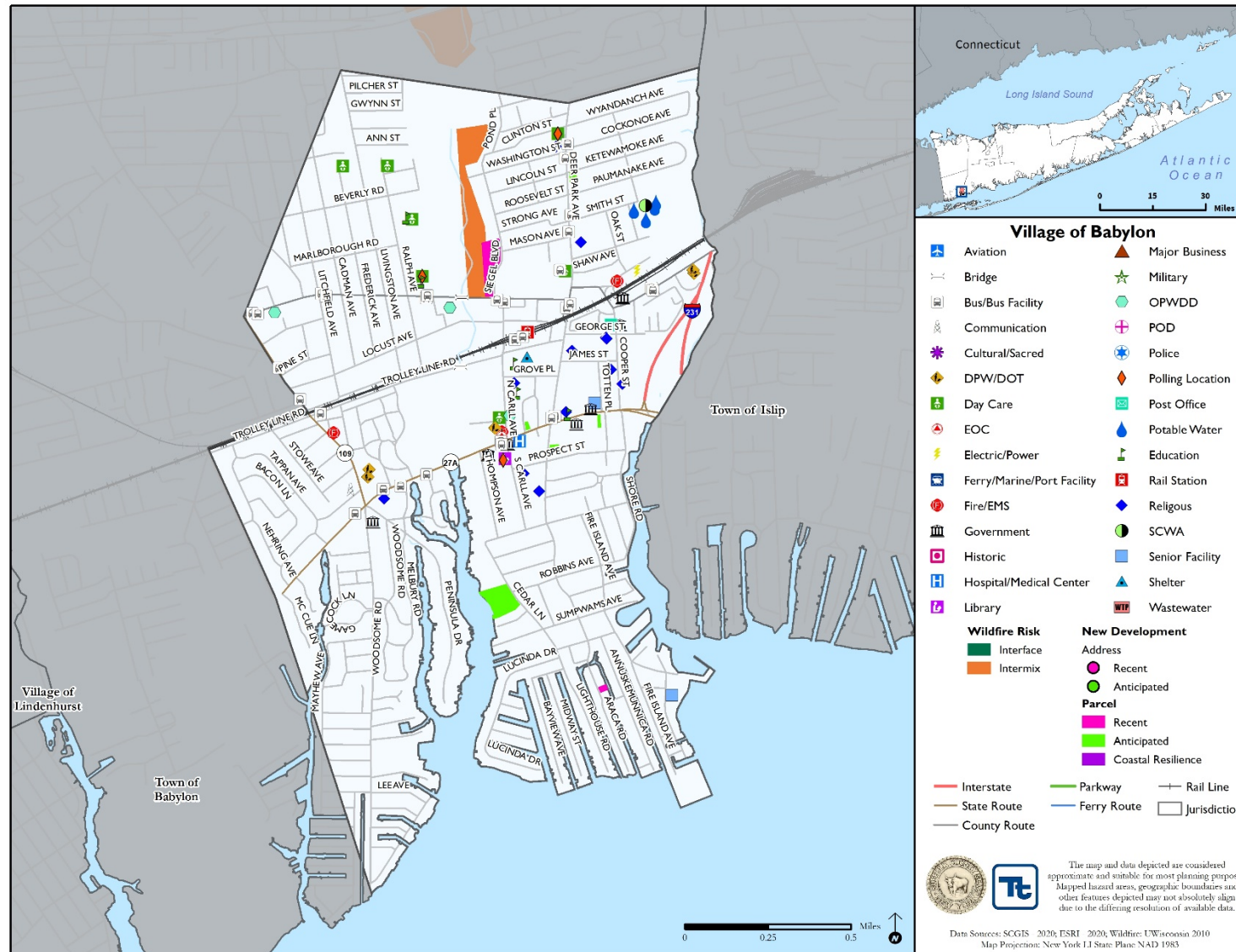




Figure 9.4-5. Village of Babylon Hazard Area Extent and Location Map 5





Action Worksheet			
Project Name:	Elevation of Roadways		
Project Number:	2020-Village of Babylon-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Numerous roadways in the Village are low-lying and prone to flooding. High priority roadways must be kept flood free to allow for evacuations.		
Action or Project Intended for Implementation			
Description of the Solution:	<p>The Village will conduct engineering studies to determine the proper elevation roadways must be raised to. The Village will raise the elevation of roadways that are vital/critical to evacuation and local community operations to allow for safe egress of residents prior to, during and post significant storm events. The following flood-prone roadways will be targeted for elevation:</p> <ul style="list-style-type: none"> Lighthouse Road Kittywake Road 		
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	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 worse case damage scenario, whichever is greater)			
Level of Protection:	TBD by engineering studies	Estimated Benefits (losses avoided):	Reduction in flooding on roadways, evacuation kept viable
Useful Life:	50 years	Goals Met:	1, 2, 7
Estimated Cost:	TBD by engineering studies	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 2 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, CDBG, Village budget
Responsible Organization:	Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Remove flood prone roadways	N/A	Loss of access to neighborhoods, increased emergency risk
	Buyout properties that exist along flood prone roadways	\$Tens of Millions	Costly, loss of large portion of community
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Evaluation and Prioritization		
Project Name:	Elevation of Roadways	
Project Number:	2020-Village of Babylon-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect evacuation routes from flooding
Property Protection	1	Project will protect roadway from flood damage
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Village has the legal authority to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	Within 2 years
Agency Champion	1	Public Works
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Increase drainage capacity of culverts spanning tidal tributaries		
Project Number:	2020-Village of Babylon-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Overpasses of tidal tributaries can restrict volume of water that can pass downstream. Restrictions can lead to flooding. The Locust Avenue bridge has already been addressed through NY Rising funds. The Long Island Railroad bridge and the Trolley Line Road bridge are in need of being addressed.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will work with the Long Island Railroad to propose the removal of the concrete walking path beneath the Railroad bridge. The walking path would be replaced with a raised wooden bridge. The Village will also complete upgrades to the Trolley Line Road bridge in the same method as the Locust Avenue bridge.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	Increased drainage capacity	Estimated Benefits (losses avoided):	Flood risk reduced
Useful Life:	50 years	Goals Met:	1, 2
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Continued implementation
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	HMGP, BRIC, CDBG, Village budget
Responsible Organization:	Long Island Railroad, Engineer, Village Administration	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Remove Long Island Railroad bridge and the Trolley Line Road bridge	N/A	Bridges cannot be removed
	Elevate Long Island Railroad bridge and the Trolley Line Road bridge	High	Railway bridge raising would involve raising of entire railway line for significant length, costly.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Increase drainage capacity of culverts spanning tidal tributaries	
Project Number:	2020-Village of Babylon-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects life from flood risk
Property Protection	1	Project protects bridges and property from flooding
Cost-Effectiveness	1	
Technical	1	
Political	1	There is public support for the project
Legal	0	The Village requires legal approval and cooperation of Long Island Railroad to complete the project.
Fiscal	0	Projects require funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	5 years
Agency Champion	1	Long Island Railroad, Engineer, Village Administration
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Argyle Lake Spillway		
Project Number:	2020-Village of Babylon-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The dam/spillway at Argyle Lake is in need of redesign/reinforcement in order to reduce risk of failure. NY Rising funds have already made improvements on site through the addition of an additional floodgate.		
Action or Project Intended for Implementation			
Description of the Solution:	The Engineer will conduct a feasibility assessment to determine the necessary redesign and reinforcement of the spillway. Once the assessment is complete, the Village will complete the identified actions.		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Dam failure avoided, flood risk reduced
Useful Life:	50 years	Goals Met:	1, 2
Estimated Cost:	\$800,000	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Continued implementation
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	HMGP, PDM, FMA, BRIC, Village budget
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Replace Dam entirely	\$1.5 million	Costly and not necessary.
	Remove Dam and Spillway	\$1.5 million	Dam cannot be removed for safety reasons.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Argyle Lake Spillway	
Project Number:	2020-Village of Babylon-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects life from dam failure
Property Protection	1	Project protects property from dam failure
Cost-Effectiveness	1	
Technical	1	
Political	1	There is public support for the project
Legal	1	The Village has the legal authority to complete the project
Fiscal	0	
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Repetitive Loss Mitigation		
Project Number:	2020-Village of Babylon-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims.		
Action or Project Intended for Implementation			
Description of the Solution:	Conduct outreach to 30 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (<i>in accordance with flood ordinance</i>)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1, 2
Estimated Cost:	\$3Million	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Repetitive Loss Mitigation	
Project Number:	2020-Village of Babylon-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The Village has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the Village.
Administrative	0	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	