



9.5 Village of Lindenhurst

This section presents the jurisdictional annex for the Village of Lindenhurst. 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 Lindenhurst’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.

9.5.1 Hazard Mitigation Planning Team

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

Table 9.5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Doug Madlon, Village Administrator Address: 430 South Wellwood Avenue Lindenhurst, NY 11757 Phone Number: (631) 957-7500 Email: dmadlon@villageoflindenhurstny.gov	Name/Title: Tom Maher, Building Inspector Address: 430 South Wellwood Avenue Lindenhurst, NY 11757 Phone Number: (631) 957-7512 Email: tmaher@villageoflindenhurstny.gov
NFIP Floodplain Administrator	
Name/Title: Tom Maher, Building Inspector Address: 430 South Wellwood Avenue Lindenhurst, NY 11757 Phone Number: (631) 957-7512 Email: tmaher@villageoflindenhurstny.gov	

9.5.2 Municipal Profile

Until the 1860s, the area which is now called the Village of Lindenhurst was primarily an agricultural community with an ample supply of developable land. The completion of a single-track to Babylon in 1867 by the South Side Rail Road (now LIRR) brought increased access and commercial development to the Village. By 1870, Thomas Welwood owned such vast tracts of land that the area’s railroad station was referenced as “Wellwood Station” in the railroad’s timetable. After the arrival of the railroad, a business district matured in the vicinity of the train station. This pattern of development is similar to other business districts in Suffolk County which initially expanded around a harbor or station.

Originally named “Breslau” after the Silesian town where Lindenhurst Village’s original settlers emigrated from, it was formally dedicated on June 6, 1870. Prior to the turn of the 20th century, business and factories came to the Village, providing many local residents with employment. This growth facilitated the formation of a fire department, the Breslau Engine Company in 1877 and later the incorporation of the Village of Lindenhurst in 1923.

Lindenhurst Village continued to grow after World War II and became a bedroom community to New York City as a result of its access to both major roadways and the LIRR. These characteristics of the Village were attractive to both residents wanting to live in a suburban community but also to those requiring more urbanized access to points west including New York City.

The approximately 3.8 square-mile Village of Lindenhurst (the “Village”) is located along the South Shore of Suffolk County, Long Island, New York. The Village, which lies within the Town of Babylon, is bounded by





Copogue to the west and West Babylon to the east. North Lindenhurst lies to the north with North Amityville to the northwest. The Village fronts the Great South Bay and features an extensive waterfront and canal system. As a result of its proximity to the water, the Village is characterized by water-dependent uses exemplified by a concentration of marina and marine industry support services especially south of Montauk Highway.

The Village of Lindenhurst Village Board of Trustees is comprised of five elected officials, the Mayor and four Trustees. There are also several boards appointed by the mayor and then are approved by the Village Board. The following is a member by member listing of the Village Board, Planning Board, Zoning Board and the Two Family Review Board.

According to the U.S. Census, the 2010 population for the Village of Lindenhurst was 27,253. The estimated 2017 population was 27,053, a 0.7 percent decrease from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 5.0 percent of the population is 5 years of age or younger and 13.2 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.

9.5.3 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 9.5-2 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 9.5-2. 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	15	0	3	0	2	0	18	0	13	0	1	0
Multi-Family	0	0	0	0	1	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0	1	0
Total Permits Issued	15	0	3	0	3	0	18	0	13	0	2	0
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												
None identified												
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												
None anticipated												

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.



9.5.4 Capability Assessment

The Village of Lindenhurst 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 9.5.4). The Village of Lindenhurst 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 Lindenhurst and where hazard mitigation has been integrated.

Table 9.5-3. 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	Code of the Village of Lindenhurst, Chapter 49	Local	Building Inspector	Yes	Yes	-
Comment: The village has adopted the New York State Uniform Fire Prevention and Building Code. See Chapter 193, Article XII, for provisions regarding such adoption and the administration and enforcement of the Uniform Code.							
Zoning Code	Yes	Code of the Village of Lindenhurst, Chapter 193	Local	Building Inspector	No	Yes	-
Comment: The Zoning code regulates development in the village.							
Subdivisions	Yes	Code of the Village of Lindenhurst, Chapter 163	Local	Village of Lindenhurst Planning Board	No	Yes	-
Comment: The purpose of these rules and regulations shall be to prepare rules, regulations and standards to guide land subdivision of the Village of Lindenhurst in order to promote the public health, safety, convenience and general welfare of the municipality. It should be administered to ensure orderly growth and development; the conservation, protection and proper use of land; and adequate provisions for circulation, utility and service.							
Stormwater Management	Yes	Code of the Village of Lindenhurst, Chapter 160	Local	The Building Inspector, Fire Marshal, and Deputy	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?	
				Administrator/Clerk are designated by the Village of Lindenhurst as the Stormwater Management Office			
<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 Lindenhurst. 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> <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	Yes	Chapter 193 Art XXIV: Downtown Redevelopment District	Local	Building Inspector	No	Yes	-
<p>Comment: As set forth in the March 2000 report of the Suffolk County Planning Commission entitled "Smart Communities through Smart Growth/Applying Smart Growth Principles to Suffolk County Towns and Villages" (hereinafter the "County Smart Growth Report"), principles of "smart growth" include encouraging mixed land uses and mixed-use buildings, taking advantage of compact building sizes and creating a range of housing opportunities, providing a variety of transportation choices, and creating pleasant environments and attractive communities.</p>							
Site Plan Review	Yes	Code of the Village of Lindenhurst, Chapter 193, Article XIII	Local	Designee of the Village Board, in conjunction with Village of Lindenhurst Planning Board	No	Yes	-
<p>Comment: The provisions of this article are designed to assure that the design, layout and aesthetics of particular land uses on a parcel, whether such use is a permitted use, special exception use through the Board of Appeals or accessory use, will be compatible with certain man-made features and natural features and surrounding development of the area and will ensure public safety and convenience on and off the lot and will in all cases comply with the letter and spirit of those provisions of this Code which pertain to such design layout or aesthetics and</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>of those provisions pertaining to the use itself. It is the intent of this article to establish procedures and design criteria necessary to avoid excessive uniformity, dissimilarity, inappropriateness or poor quality of design and location which adversely affects the desirability of the immediate and neighboring areas that impair the benefits of occupancy of existing property and the stability and value of both improved and unimproved real property in such areas. It is further the intent of this article to preserve and enhance the character, historical interest, beauty and general welfare of the municipality and to ensure that the location and design of buildings, structures, appurtenances and open spaces in the municipality shall aid in creating a balanced and harmonious composition of the whole as well as in the relationship of its several parts. Various on-site structures and uses within the development shall be harmonious and in scale to one another and with the neighborhood. No open design foundation system will be permitted for any structures within an AE flood zone. Open design foundation systems shall only be permitted in FEMA designated V (Velocity) zones.</p>							
Environmental Protection	Yes	Code of the Village of Lindenhurst, Chapter 193, Article XIII	Local	Village Board	Yes	Yes	-
<p>Comment: Pursuant to Article 8 of the Environmental Conservation Law, L.L. No. 3-1977 was adopted 5-2-1977 by the Board of Trustees, providing for environmental quality review of actions which may have a significant effect on the environment. The full text of this local law is available for inspection in the office of the Village Administrator Clerk.</p>							
Flood Damage Prevention	Yes	Code of the Village of Lindenhurst, Chapter 91	Local	Building Inspector	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	-
<p>Comment: The ordinance is adopted in order to:</p> <ul style="list-style-type: none"> A. To protect human life and health; B. To minimize expenditure of public money for costly flood control projects; C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; D. To minimize prolonged business interruptions; 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; 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; G. To provide that developers are notified that property is in an area of special flood hazard; and, H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions. 							
Municipal Separate Storm Sewer System (MS4)	Yes	Code of the Village of Lindenhurst, Chapter 189 Art II: Illicit Discharges to, Connections with and Activities in the Storm Sewer System	Local	Building Inspector	Yes	Yes	-
<p>Comment: The purpose of this article is to provide for the health, safety, and general welfare of the residents and general public of the Village of Lindenhurst through the regulation of nonstormwater discharges to the Village of Lindenhurst municipal separate stormwater drainage system (MS4) to the maximum extent practicable as required by Section 402 of the Clean Water Act and New York State Department of Environmental Conservation SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (MS4s) Permit Number NYR20A270, issued pursuant to Article 17, Titles 7 and 8, and Article 70 of the Environmental Conservation Law, or as amended or revised. This article establishes methods for controlling the introduction of pollutants into the Village of Lindenhurst MS4 system in order to comply with requirements of the SPDES General Permit for Municipal Separate Storm Sewer Systems. The objectives of this article are:</p> <ul style="list-style-type: none"> • To meet the requirements of the SPDES General Permit for Stormwater Discharges from the Village of Lindenhurst MS4, Permit No. NYR20A270, or as amended or revised; • To regulate the contribution of pollutants to the Village of Lindenhurst 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 Lindenhurst MS4; • To establish legal authority to carry out all inspection, surveillance and monitoring procedures necessary to ensure compliance with this article; and • To promote public awareness of the hazards involved in the improper discharge of trash, yard waste, lawn chemicals, pet waste, wastewater, grease, oil, petroleum products, cleaning products, paint products, hazardous waste, sediment and other pollutants into the Village of Lindenhurst MS4. 							
Emergency Management	No	NYS Executive Law, Article 2B	-	-	Yes	-	-



Section 9.5: Village of Lindenhurst

	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:							
Climate Change	No	NYS Executive Law, Article 75	-	-	Yes	-	-
Comment:							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment:							
Other	No	-	-	-	-	-	-
Comment:							
Planning Documents							
Comprehensive Plan	Yes	Suffolk County Comprehensive Plan 2035, August 2011; A Plan for the Future of the Town of Babylon, Draft Comprehensive Plan, March 1998	County; Town	Suffolk County Planning Commission; Town of Babylon Planning	No	Yes	-
Comment: Covered under County and Town Comprehensive Plans.							
Capital Improvement Plan	No	-	-	-	No	-	-
Comment: Budget is made on an annual basis.							
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	Consultant: Cashin Associates	No	Yes	-
Comment:							
Open Space Plan	No	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	-	-	Yes	-	-
Comment: No official plan but have numerous areas of open space and the Lot Next Door Program.							
Urban Water Management Plan	No	-	-	-	No	-	-
Comment:							



Section 9.5: Village of Lindenhurst

	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?	
Habitat Conservation Plan	No	-	-	-	No	-	-
Comment:							
Economic Development Plan	Yes	Downtown Master Plan	Local	Economic Development Committee	No	-	-
Comment: The Downtown Master Plan serves as the Economic Development Plan for the downtown area of the Village.							
Shoreline Management Plan	Yes	Shore Road Waterfront Park Natural Resiliency Improvements Project Village of Lindenhurst, Suffolk County, NY (2019); Village of Lindenhurst Draft Local Waterfront Revitalization Program: Yes; January 2011; Local	Local	Village Board	Yes	Yes	-
<p>Comment: The Village of Lindenhurst proposes to design and implement storm resiliency improvements and public access improvements at the southern end of Shore Road Park. The plan proposes:</p> <ol style="list-style-type: none"> 1.Construction of low-tide and a high-tide protective shorefront structures (rock sills) with stone boulders to provide storm and erosion protection during wave action at either tide cycle and prevent recurring flooding and reduce wave action for storm protection; 2.Replacement of the existing asphalt road at the southern end of South Bay Street with a gravel road with a gated entry for emergency access 3.Sand and living shoreline vegetation will be placed between the two rock sills and upland landscaping will be placed above the high tide wall on the west side of the area. Drainage improvements including extension of drainage outlets to between the low- and high-tide rock sills, and the addition of tide check valves as a means of protecting the southern end of Shore Road Park from flooding during major storm events; 4.The top of the existing bulkheads along the shore of the eastern portion of the site (former private residential parcels) will be removed to an elevation of 0.08 feet to serve as the low-tide wave break. 5 The properties will be regraded and revegetated. Placement of clean fill where needed; 6.A Phragmites Eradication Plan, approved by the NYSDEC, will be implemented and new native coastal vegetation will be planted. 							
Community Wildfire Protection Plan	No	-	-	-	No	-	-
Comment:							
Forest Management Plan	No	-	-	-	No	-	-
Comment:							
Transportation Plan	No	-	-	-	No	-	-
Comment: The Village does not have an overall transportation plan but has a Walkability Study.							
Agriculture Plan	No	NYCRR Part 390 Agricultural and Farmland Protection	-	-	Yes	-	-
Comment:							
Other (this could include a climate action plan, tourism plan, business)	Yes	See below	See below	See below	No	No	-





	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?	
development plan, etc.)							
Comment: Long Island South Shore Estuary Reserve Comprehensive Management Plan: Yes; April 2011 Local; Long Island South Shore Estuary Reserve Council, NYS Department of State Village of Lindenhurst: Downtown Business District Analysis; Yes; April 2000; Local							
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	No	-	-	-	-	-	-
Comment:							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Emergency Management completed exercises	Local	Suffolk County and OEM	Yes	Yes	-
Comment:							
Post-Disaster Recovery Plan	Yes	Post-Disaster Recovery Plan	Local	Village Board and Building Department	No	Yes	-
Comment:							
Continuity of Operations Plan	No	-	-	-	No	-	-
Comment:							
Public Health Plan	No	-	-	-	No	-	-
Comment:							
Other	No	-	-	-	-	-	-
Comment:							

Table 9.5-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes
Development Permits. If yes, what department?	Yes. Offer complete review. Building
Permits are tracked by hazard area. For example, floodplain development permits.	Yes. Permits Tracked. There have very few new homes since the last HMP.
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	97% developed



Administrative and Technical Capability

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

Table 9.5-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board/ and Zoning Board of Appeals	Yes	Planning Board
Mitigation Planning Committee/Stormwater Management Commission	Yes	Douglas Madlon, Village Administrator
Environmental Board/Commission	No	Use Town of Babylon
Open Space Board/Committee	Yes	Village Board of Trustees
Economic Development Commission/Committee	Yes	Overseen by Trustee separate committee
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Suffolk County alerts are available. Nothing community wide from the Village other than Fire Dept alarms.
Maintenance programs to reduce risk	Yes	Public works replacing storm drains, installing pumps & replacing galvanized pipes
Mutual aid agreements	Yes	Fire Departments throughout Suffolk county have mutual aid agreements
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Use Consultants
Engineers or professionals trained in building or infrastructure construction practices	Yes	Douglas Madlon, Village Administrator
Planners or engineers with an understanding of natural hazards	Yes	Same as above
Staff with expertise or training in benefit/cost analysis	Yes	Use Consultants
Professionals trained in conducting damage assessments	Yes	Rick Sorrentino- Superintendent of Public Works
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Use Consultants
Scientist familiar with natural hazards	Yes	Use Consults or County
NFIP Floodplain Administrator (FPA)	Yes	Per Village of Lindenhurst Code §80-12, the Building Inspector is designated NFIP FPA; Douglas Madlon is currently serving in that position.
Surveyor(s)	Yes	Contract with Surveyor
Emergency Manager	Yes	Ray Fais
Grant writer(s)	Yes	Village Board of Trustees Hire Consultants
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	Yes	2 Family Review Board for regulating rentals.

Fiscal Capability

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



Table 9.5-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes. The Community Center is renovating a large room that was used during Sandy to double as a temporary shelter
Capital improvements project funding	The Village has Capital Projects but the Capital Improvements Program is not always funded. The Village is assessing the 2020 Program.
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, for new development
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes. NY State HMP elevated two homes. Applying for SAM grant to elevate roads
Open Space Acquisition funding programs	Yes
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

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

Table 9.5-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes
Personnel skilled or trained in website development?	Yes
Hazard mitigation information available on your website; if yes, describe	Ray Fais – Emergency Manager may add Hazard Mitigation information.
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes. Hurricane Sandy Support Services Website
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.	No
Warning systems for hazard events; if yes, briefly describe.	No
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes, School District has program as does the County.
Other	No

Community Classifications

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



Table 9.5-8. 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	2/3	Currently being reviewed
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	76.31	Covered by Fire Department
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 9.5-9. 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 has access to information from New York State and USACE projects regarding climate change and future conditions. The Village has noted that coastal flooding is worsening in the Village. The Village has completed various



initiatives which are designed to address rising coastal waters including roadway elevations, installing check valves on outfall pipes, and supporting home elevations and buyouts.

9.5.5 National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Tom Maher, Building Inspector

National Flood Insurance Program (NFIP) Summary

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

Table 9.5-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Village of Lindenhurst	1121	2728	\$95,799,300	400

Source: FEMA 2020

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

RL Repetitive Loss; SRL Severe Repetitive Loss

Flood Vulnerability Summary

1,300 homes sustained flooding damage from Hurricane Sandy. Of those homes, 180 have been declared Substantially Damaged. The FEMA Substantial Damage Estimator software is used by the NFIP floodplain administrator to make the determinations. Over 300 homes have been elevated in the Village post-Sandy. 41 properties have been bought out and converted to open space. The Village has then worked to transfer ownership of these open space lot to adjoining property owners through the “Lot Next Door” program. The lots are then maintained as open space in perpetuity by the neighboring property owner. Funding for mitigation projects has included: private funding, flood insurance, Increased Cost of Compliant (ICC), grant funding, and New York Rising.

A list of flood-damaged homes is maintained by the Village. Information regarding a property owner’s desire to mitigate is not maintained. The NY Rising program is aware of property owner’s wishing to mitigate their properties.

Resources

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

In addition to the NFIP FPA, the community has supplementary staff for which NFIP is an auxiliary duty; personnel include the Village Deputy Administrator.

Duties and responsibilities of the Building Inspector/NFIP Administrator are permit review, inspections, damage assessments, and education and outreach.

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



Duties and responsibilities of the Building Inspector/NFIP Administrator are permit review, inspections, damage assessments, and education and outreach.

In the Village of Lindenhurst, the following educational and/or outreach activities related to the NFIP: community forums and workshops. These events have been particularly helpful to residents in the aftermath of Hurricane Sandy.

No barriers were identified to running an effective floodplain management program. Receiving additional training on floodplain management is something of great interest.

Compliance History

Village of Lindenhurst joined the NFIP on August 15, 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 91 of the local code, was last updated on May 5, 2009.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Village of Lindenhurst has completed Community Assistance Visits (CAV), with the most recent visit completed July 29, 2014.

Regulatory

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on May 5, 2009, and is found at Chapter 91 of the local code.

FEMA floodplain management regulations/ordinances are exceeded by the Village enforcing BFE +2 feet. New York State requirements are met. The Zoning Board and Planning Board discuss floodplain requirements and implications of projects with the Floodplain Administrator prior to hearing an application.

Community Rating System

Village of Lindenhurst is not currently a CRS community. Joining would be something the NFIP floodplain administrator would discuss with the Village Board pursue.

9.5.6 Integration with Other Planning Initiatives

As this HMP update is implemented, the Village of Lindenhurst 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

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

- **Planning Board:** The Lindenhurst Planning Board meets on the third Thursday of every month. No meetings are held in August or December. Meeting times are at 7:00 PM at Lindenhurst Village Hall.



- **Zoning Board of Appeals:** The Lindenhurst Zoning Board of Appeals meets on the fourth Wednesday of every month. Meeting times are at 7:00 PM at Lindenhurst Village Hall.
- **Village of Lindenhurst Business Improvement District:** The mission of the Village of Lindenhurst B.I.D. is to assist businesses and property owners in the business improvement district with projects that improve and/or upgrade their business properties. The B.I.D. provides “matching fund” monetary assistance for projects that meet certain criteria as established by the B.I.D.
- **Lindenhurst Economic Development Committee:** The Lindenhurst Economic Development Committee (LEDC) has been given the task of researching, reviewing and presenting recommendations to the Lindenhurst Village Board on issues of economic growth and the future development of the Village of Lindenhurst.
- **Code Enforcement and Site Plan Review:** While the Village has a 26’ maximum building height limit, the Village Zoning Board of Appeals takes this into account for properties in NFIP floodplains when granting variances. The Zoning Board considers the findings, vulnerabilities and recommendations within the HMP when conducting development and site plan reviews to assure appropriate land use.

Opportunities for Future Integration

None identified.

9.5.7 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 of Lindenhurst uses State and County evacuation routes, accessing them through the main roadways of the Village including Montauk Highway, Wellwood Avenue, etc. The Village follows the State and County’s guidance for evacuation decisions.

Sheltering

The Village relies on the American Red Cross for sheltering. The Community Center is renovating a large room that was used during Sandy to double as a temporary shelter, capable of sheltering roughly 75 people.

Temporary Housing

The Village does not have any identified space for the placement of temporary housing. Available open space locations are either too small or located within the Special Flood Hazard Area.

Permanent Housing

As the Village is built out, the Village has not been able to identify locations for the placement of permanent housing in the event that homes need to be moved or rebuilt out of the floodplain.

9.5.8 Hazard Event History Specific to the Village of Lindenhurst

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 Lindenhurst’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 9.5-11 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 9.5-11. 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 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.	Although the County was impacted, the Village of Lindenhurst did not report any damages.
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, the Village of Lindenhurst did not report any damages.
May 16-17, 2014	Strong Wind	No	Strong south winds occurred across Western Suffolk County ahead of an approaching cold front. It was reported power lines down at 10:50 pm, in Lindenhurst near Montauk Highway.	\$20K in property damage was reported.

Notes:

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

9.5.9 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 Town 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 9.5-12. 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			
Likeness, Kristin	Day Care	X	-	X	Unknown	2020-Lindenhurst-002

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 Lindenhurst. The Village of Lindenhurst 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 Lindenhurst indicated the following:





- The Village changed the hazard ranking of severe storm from medium to high, noting the flash flooding potential on creeks during severe storm events.
- The Village agreed with the remainder of the calculated hazard rankings.

Table 9.5-13. Hazard Ranking

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

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Special Flood Hazard Area in the Village of Lindenhurst consists of approximately 200 acres in the extreme southern portion of the Village, essentially in the shape of a “W”. The left leg of the “W” corresponds to the area along and adjacent to Strong Creek, south of Montauk Highway. The right leg of the “W” corresponds to the area along Neguntatogue Creek, south of Montauk Highway. The center leg of the “W” corresponds to the area along Little Neck Creek, south of Montauk Highway
- Within the special flood hazard area, the Village has identified the Lane Street Fire House and E.W. Bower School building critical to public safety during severe flooding events. The Lane Street Fire House does not currently house any ambulance. However, the station houses water rescue equipment. The equipment can be relocated to facilities north of Montauk Highway when a storm event is anticipated.
- There are more than 4,000 buildings located in areas prone to flood damage, including commercial facilities and marinas. If these at-risk structures sustain average flood damages of \$5,000.00, the total flood damages to buildings would be about \$20 million. In addition, the damages to critical infrastructure could also be several million dollars.
- It should also be noted, flooding can be caused by excessive precipitation, rapid snowmelt, ice jams, or high tides. Urban or street flooding can result from heavy precipitation, clogged storm sewers, or a ruptured water main. Slow –moving thunderstorms often produce flash floods, particularly during summer months. Remnants of tropical storm systems can produce both flash floods and stream flooding. Stream flooding, flash flooding or urban flooding does occur in the village almost every year.
- Constant nuisance flooding occurs from higher high tides.
- Streams flood during storm events combined with high tide. Streams can’t flow to canals and bay and results in water being backed up into street. The bay pushes stormwater back at high tide.
- Erosion is occurring along natural shoreline at Shore Road Park.
- Hundreds of wild parrots in lights at fields. These parrots were released into the wild and are considered an invasive species.



Specific areas of concern based on resident response to the Suffolk County Hazard Mitigation Citizen survey include:

- Flooding occurs on Surf Street, Shore Road, and Beacon Avenue.

9.5.10 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 9.5-16). 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 9.5-14. 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	Level of Protection	
LH-1 (Sandy HMGP LOI #1847)	Project to supply emergency power to the Lindenhurst Fire Department.	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake	Lindenhurst Fire Department: Heather Duffy, Grants Associate		Complete; A part of the overall Main Fire House, South Wellwood Avenue, Lindenhurst rebuilding project a generator was installed as back up power. Therefore, this project was completed.	Cost		1. Discontinue 2. 3. Complete
LH-2 (Sandy HMGP LOI #808)	Harding masonry window wall reconstruction.	All Hazards	Lindenhurst School District: John Marek, plant fac. admin		Complete	Cost		1. Discontinue 2. 3. Complete
LH-3 (Sandy HMGP LOI #2076)	Backup generator. Backup power generator for the middle school	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake	- - -		Complete	Cost		1. Discontinue 2. 3. Complete
LH-4 (Sandy HMGP LOI #2079)	Hardening backup generator.	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake	Lindenhurst School District: john marek, plant fac admin		Complete	Cost		1. Discontinue 2. 3. Complete
LH-5 (NEW)	Elevating two homes located at 49 Bayview		Homeowners, Village,		Complete	Cost		1. Discontinue 2. 3. Complete



	Avenue West and 787 South 7 th Street.	Flood, Hurricane, Nor'Easter, Severe Storm	NYSOEM, FEMA			Damages Avoided; Evidence of Success		
LH-6 (NEW)	Implement the roadway elevation and drainage improvement project on South Wellwood Avenue from Shore Road and continues south to the Village Marina.	Flood, Hurricane, Nor'Easter, Severe Storm	Village, FEMA		In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-7 (former LH-3)	Establish a minimum cap elevation for all new or replacement bulkheads in the Village Code.	Flood, Hurricane, Nor'Easter, Severe Storm	Village, FEMA		Complete	Cost		1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-8 (former LH-4)	Purchase the "Lazy Lake" property on Montauk Highway to be used for a new recharge basin. Acquire property as funding becomes available.	Flood, Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm	Village, FEMA		No Progress; property sold to private developer for senior citizen housing.	Cost		1. Discontinue 2. Site sold 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-9 (NEW)	Continuously seeking out Federal or State funding for home elevation and road elevation projects. A particular emphasis would be on homes that have first floor elevations below the base flood elevation and those who have	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		



	suffered repetitive losses.							
LH-10 (NEW)	Create programs to improve roadway drainage systems. Projects would include raising roads and installing check valves on drainage outfalls.	Flood, Hurricane, Nor'Easter, Severe Storm	Village, FEMA		Ongoing Capability; Last year the Village completed the road raising of South 4th Street. Also, the Department of Public Works installed check valves at 10 locations. Road Raising and Check Valve Installation are a ongoing project.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-11 (NEW)	Collaborate with homeowners on projects that encourage raising driveways and other site appurtenances.	Flood, Hurricane, Severe Storm, Nor'Easter, Severe Winter Storm	Homeowners, Village, NYSOEM, FEMA		Ongoing Capability; Building Inspectors and Village Hall Staff encourage property owners in our Coastal Flood Zones to elevate their, homes, driveways and property when ever possible.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-12 (former LH-5)	Set up a program under the direction of the Village Deputy Administrator to monitor the Village mobile fleet communication equipment to ensure all components are kept in working order	All Hazards	Village		Ongoing Capability; The Village Administrator works with the Superintendent of Pubic Works to monitor the Village Mobile fleet communication equipment to ensure all components are kept working	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability



	and all technology is up to date.				and all technology is up to date.			
LH-13 (former LH-7)	Acquire a generator and electrical connection to power a portion of the Rainbow Center, two Highway Yard areas, and Fire Station 6. These locations will be used for staging or sheltering.	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm, Earthquake	Village		In Progress; With Federal New York Rising Funds the Village installed a 150 watt generator at the Rainbow Community Center completed in January 2020. There is still a need for back up generators at the Department of Public Works- Highway Yard area and at Lindenhurst Village Hall.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. There is still a need for back up generators at the Department of Public Works- Highway Yard area and at Lindenhurst Village Hall. 3.
LH-14 (former LH-10)	Continue to raise priority sections of low-lying roads and improve drainage systems. The following road sections are in the process of mitigation, or being investigated for mitigation: • South Wellwood from Shore Road South to Marina is currently grant funded through the NYS Community Capital Assistance Program (floods even on lunar high-tide cycles, resulting in blocked	Flood, Hurricane, Nor'Easter, Severe Storm	Village		In Progress; -- South Wellwood Avenue from the Marina to Spring Street Road Raising is completed. --South 4th Street Road Raising at the dead-end is completed. --South 8th Street flood mitigation in planning stage --South Bay Street flood mitigation in planning stage --Bay view Avenue West in planning stage	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. South 4th Street Road Raising at the dead-end is completed; South 8th Street flood mitigation in planning stage; South Bay Street flood mitigation in planning stage; Bay view Avenue West in planning stage; Bay view Avenue East road needs to be elevated 3.



	<p>access to residents and businesses).</p> <ul style="list-style-type: none"> • Shore Road, entire length • Bay View, East and West • South Bay • South 4th • South 8th • Section of South 9th <p>Implement mitigation actions as funding becomes available.</p>				--Bay view Avenue East road needs to be elevated			
LH-15 (former LH-12)	<p>Perform a structural survey of Rainbow Center, Village Hall, Fire Department Buildings, Highway Department Buildings, and emergency management buildings to ensure that they are safe during at least a category F3 tornado or correlated wind storm events such as severe storm, hurricane, winter storm, etc.</p>	All Hazards	Village		In Progress; In progress of reviewing the locations. Will consult with a licensed design professional for structural analysis	Cost		<ol style="list-style-type: none"> 1. Include in 2020 HMP 2. 3.
					Level of Protection			
					Damages Avoided; Evidence of Success			
LH-16 (NEW)	<p>Research and develop options to increase flow and capacity of canals and waterfront on a regular basis to allow for navigation and flood control purposes.</p>	Nor'Easters; Hurricane; Flooding; Shallow Groundwater	SCDPW		Ongoing Capability; Village officials work with Town, County, and State officials on all issues regarding capacity of	Cost		<ol style="list-style-type: none"> 1. Discontinue 2. 3. Ongoing Capability
					Level of Protection			
					Damages Avoided; Evidence of Success			



					Canals and Bayfront			
LH-17 (NEW)	Assess, prioritize and design or enhance existing municipal drainage systems to provide increased carrying capacity of the drainage system ¹ to mitigate repetitive flooding. Implement prioritized improvements as funding becomes available.	Nor'Easters, Coastal Erosion, Hurricane, Flooding, Severe Storms, Shallow Groundwater	Village		Ongoing Capability; Going day to day project to improve drainage system in the Village of Lindenhurst.	Cost		1. Discontinue 2. 3. Ongoing Capability
LH-18 (NEW)	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss, such as acquisition/relocation, or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Flood, Nor'Easter, Hurricane, Severe Weather	Village		In Progress; Home elevation, buyout of at risk homes for open space, and elevating the grade of properties.	Cost		1. Include in 2020 HMP 2. 3.
LH-19 (NEW)	Identify and require safe and resilient methods for the storage of on-site fuel oil/propane tanks and	Flood, Nor'Easter, Hurricane, Severe Storm, Groundwater	Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		

¹ See the Conceptual Plan's proposed strategies for the Infrastructure function for examples of enhancements to make to the drainage systems.



	codify in Town/Village codes.	Contamination, Wildfire				Evidence of Success			
LH-20 (NEW)	Investigate and implement options to streamline environmental and local permitting processes related to shoreline stabilization.	Flood, Nor'Easter, Hurricane, Severe Storm, Coastal Erosion	Village/ NYSDEC			Ongoing Capability; Ongoing with Dept. of Public Works, Planning Board, and Building Dept.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-21 (NEW)	Assess options and funding opportunities to provide a better and more accurate system of flood alerts and warnings. Implement as funding becomes available.	Flood, Nor'Easter, Hurricane, Severe Storm	County/ Village			Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-22 (NEW)	Develop an emergency evacuation roadway plan for key roads, especially south of Montauk Highway, that ensures that these facilities would remain passable during storm event. Identify key high and dry roadway evacuation routes between the bayfront and Village Center. Develop and implement as funding becomes available.	Flood, Nor'Easter, Hurricane, Severe Storm	County/ Village			In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. 3.
LH-23 (NEW)	Obtain funding sources to analyze, prioritize and improve emergency access (ingress and egress) to residential neighborhoods south of Montauk Highway.	Flood, Nor'Easter, Hurricane, Severe Storm	Village			In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. 3.



LH-24 (New York Rising Project #1)	Comprehensive Drainage Infrastructure Master Plan and Phase I Improvements				Complete; completed with New York Rising funds	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Complete
LH-25 (New York Rising Project #2)	Lindenhurst Village South Storm Water Drainage System Phase II Improvements				In Progress; Ongoing Work with the Department of Public Works at improving the Drainage system in the Village of Lindenhurst.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. 3. \$1.5M NY Rising funds, culvert project
LH-26 (New York Rising Project #3)	Neguntatogue Park Natural Systems Resiliency Improvements/Creek Habitat Walk				Ongoing Capability; The Department of Public Works oversees the maintenance of the Creeks that traverse the Village. There is on-going inspections and maintenance program for each Creek. There is a planned New York Rising project to install a culvert at Newark Street that will mitigate flooding conditions along the northern section of Neguntatogue Creek..	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-26 (New York Rising)	Regional Canal Dredging and Waterfront Economic Management Program				Ongoing Capability	Cost Level of Protection Damages Avoided;		1. Discontinue 2. 3. Ongoing Capability



Project #4)						Evidence of Success		
LH-27 (NEW)	Identify at-risk properties.	All Hazards	Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-28 (former LH-8)	Acquire technology to electronically archive records in a secure, off-site location	All Hazards	Village		Ongoing Capability; went to a cloud based storage system	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-29 (former LH-9)	Require that all new building permit applications contain an electronic version of plans and applications.	All Hazards	Village		Ongoing Capability; working on obtaining the technology	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-30 (former LH-11)	Pursue grant money and encourage residents with first floor residents below base flood elevation to raise their homes.	Flood, Hurricane, Nor'Easter, Severe Storm	Village		In Progress; The Village Has received two DHSES/FEMA Flood Mitigation Assistance grants funds to elevated two homes.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. Repetitive Loss action 3.
LH-31 (former LH-14)	Establish a yearly Outreach Program to the Special Flood Hazard Area and the entire community.	Flood, Hurricane, Coastal Erosion, Severe Storm, Severe Winter Storm	Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-32 (former LH-15)	Set up monitoring sites.	Coastal Erosion, Drought, Flood, Hurricane, Nor'Easter, Severe Storm, Winter Storm	Village		Complete	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Complete
						Cost		1. Discontinue



LH-33 (former LH-26)	Update GIS data on a monthly basis.	Coastal Erosion, Drought, Flood, Hurricane, Nor'Easter, Severe Storm, Winter Storm	Village		Ongoing Capability	Level of Protection Damages Avoided; Evidence of Success		2. 3. Ongoing Capability
LH-34 (former LH-20)	Update list of resources on flood protection yearly.	Coastal Erosion, Drought, Flood, Hurricane, Nor'Easter, Severe Storm, Winter Storm	Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-35 (former LH-21)	Send at least 2 inspectors to FEMA retrofitting classes yearly.	Coastal Erosion, Earthquake, Expansive Soils, Flood, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	Village		In Progress; Will send at least one Building to attend classes.	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. 3.
LH-36 (former LH-22)	Seek funding on a yearly basis for the elevation and retrofitting of flood prone buildings and other retrofitting programs.	Flood, Hurricane, Nor'Easter, Severe Storm	Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-37 (former LH-24)	Set up training display in Building Department as part of Outreach Program.	Coastal Erosion, Earthquake, Expansive Soils, Flood, Hurricane, Infestation, Nor'Easter, Severe Storm, Shallow GW, Wildfire, Winter Storm	Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
	Enter new elevations of raised streets into	Coastal Erosion, Drought, Flood,	Village		Ongoing Capability	Cost Level of Protection		1. Discontinue 2. 3. Ongoing Capability



LH-38 (former LH-26)	GIS system on a monthly basis.	Hurricane, Nor'Easter, Severe Storm, Winter Storm				Damages Avoided; Evidence of Success		
LH-39 (former LH-37)	Survey elevations of all drainage structures, determine area of impact, and establish GIS layer to store and analyze information.	Flood, Nor'Easter, Hurricane, Severe Storm	Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-40 (former LH-38)	Investigate possible use of new bulkhead materials for future Village projects and establish test sites which can be monitored on a regular basis by the Village and other interested governmental agencies.	Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm	Village		Complete	Cost		1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-41 (NEW)	Participate in homeowner partnership program to maximize opportunities for participation in the House Elevation Program, for elevate vulnerable properties in high risk areas impacted by coastal storms, surface flooding, and/or	Nor'Easters, Coastal Erosion, Severe Storms, Hurricane, Flooding, Shallow Groundwater	FEMA		Complete	Cost		1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		



	shallow groundwater ² .							
LH-42 (NEW)	Educate the public on the impacts in flood prone areas on life and property, insurance, ways to protect their property before and during natural events and what they can acquire to install appropriate property protection measures, evacuation areas, securing of property, safety	Nor'Easters; Coastal Erosion; Severe Winter Storms; Hurricane; Flooding; Severe Storms	FEMA NFIS		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-43 (NEW)	Identify and require resilient and hurricane proof construction techniques and materials for all new structures in high and extreme risk areas and codify requirements in Town/Village codes.	Hurricane, Severe Storm	Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-44 (NEW)	Revise/update zoning ordinance, site plan ordinance and other pertinent codes or plans to incorporate storm resiliency protections, as recommended by the Committee.	Flood, Nor'Easter, Hurricane, Severe Storm	Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
					In Progress	Cost		1. Include in 2020 HMP

² This includes assisting property owners and small businesses in navigating the complexities of insurance requirements, public programs, permitting and other issues



LH-45 (NEW)	Develop and implement a program to inspect shoreline conditions on a regular basis and enforce program requirements designed to ensure that regular necessary maintenance is being conducted.	Flood, Nor'Easter, Hurricane, Severe Storm, Coastal Erosion	Village			Level of Protection		2. Erosion Monitoring Program 3.
						Damages Avoided; Evidence of Success		
LH-46 (NEW)	Plan for, identify locations and secure necessary rights for the temporary storage of vehicles and other items during times of anticipated storms.	Flood, Nor'Easter, Hurricane, Severe Storm	County/ Village		Complete; The Village has designated municipal parking lots and railroad Station parking lots that are not in flood zones as designated parking for residents living in the flood prone areas.	Cost		1. Discontinue 2. 3. Complete
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-47 (NEW)	Assess need, develop programs and obtain funding to assist special needs populations before, during and after emergency events ³ .	All Hazards	County/ Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-48 (NEW)	Obtain funding sources to analyze, prioritize and improve Montauk Highway at locations that flood frequently.	Flood, Nor'Easter, Hurricane, Severe Storm	County/ Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-49 (NEW)	Review current codes and adopt		Village		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		

³ See the Conceptual Plan's proposed strategies for the Health and Social Services function for examples of how to assist these populations.



	amendments as needed to require hurricane strapping for all new structures within high-risk areas.	Nor'Easter, Hurricane, Severe Storm				Damages Avoided; Evidence of Success		
LH-50 (NEW)	Work with the County and adjacent communities to create a program to improve public communications prior to, during and after storm events. Implement as funding becomes available.	All Hazards	County/ Village		Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing Capability
LH-51 (NEW)	Analyze and assess options to update Fire Department communications system for a safer and better response during emergency events. Implement as funding becomes available.	Flood, Nor'Easter, Hurricane, Severe Storm, Earthquake, Wildfire, Winter Storm	Village		Complete	Cost Level of Protection Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Complete
LH-52 (NEW)	Analyze and assess options available to improve Neguntatogue Park for storm surge and rainwater retention as well as recreational activities. Prioritize project solutions and implement as funding becomes available.	Flood, Nor'Easter, Hurricane, Severe Storm, Coastal Erosion	Village/ NYSDEC		In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. Include in 2020 HMP 2. 3.
LH-53 (NEW)	Research options and funding availability to continue to electronically archive all Village records (both current and historical) in a secure offsite location to	LH-54 (NEW)	Work with the adjacent communities and County to set up a Flood Summit Meeting with	Flood, Hurricane, Nor'Easter, Severe Storm	Village, Adjacent Communities	Level of Protection Damages Avoided; Evidence of Success	In Progress	1. Discontinue 2. 3. Ongoing Capability



	ensure continued and reliable access during and post incidents. Implement as funding and staff time is available.		engineering divisions of various governmental agencies to discuss procedures, new methods, and standards thereby benefitting from inter-agency collaboration. Develop a mutually beneficial program of regular collaboration.					
LH-54 (NEW)	Work with the adjacent communities and County to set up a Flood Summit Meeting with engineering divisions of various governmental agencies to discuss procedures, new methods, and standards thereby benefitting from inter-agency collaboration. Develop a mutually beneficial program of regular collaboration.	Flood, Hurricane, Nor'Easter, Severe Storm	Village, Adjacent Communities		In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
LH-55 (NEW)	Investigate and implement a program to enhance floodplain management capabilities through participation in some	Flood, Hurricane, Nor'Easter, Severe Storm	Village, Adjacent Communities		In Progress	Cost		1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		



	or all of the following activities: work with adjacent communities to 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; CRS program workshops and training; BCA training; elevation certificate training; etc.							
LH-56 (former LH-44)	Initiate a needs assessment for a Village Emergency Operations Center. Investigate funding options and implement identified improvements as funding becomes available.	All Hazards	Village		In Progress	Cost		1. Include in 2020 HMP
					Level of Protection			
					Damages Avoided; Evidence of Success			
LH-57 (former LH-45)	Develop and implement a Village wide program that establishes	All Hazards	Village		Ongoing Capability; On going review of all Planning	Cost		1. Discontinue 2. 3. Ongoing Capability
					Level of Protection			
					Damages Avoided;			



	procedures for the comprehensive review of all new and existing plans ensuring plan consistency prior to the Board of Trustees adoption.				Board applications	Evidence of Success		
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Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Lindenhurst 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 has established the Lot Next Door program which allows neighboring property owners to take ownership of open spaces next to their properties created by buyouts of flood prone properties.

Proposed Hazard Mitigation Initiatives for the HMP Update

The Village of Lindenhurst 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 9.5-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Lindenhurst 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 9.5-16 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 9.5-15. 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-Lindenhurst-001	Repetitive Loss	1, 2	Flood, Severe Storm	<p>Problem: Frequent flooding events have resulted in damages to residential properties in neighborhoods south of Montauk Highway. These properties have been repetitively flooded as documented by paid NFIP claims. The Village has completed significant mitigation of repetitive loss properties in the past, resulting in 300 homes being elevated and 41 homes acquired for open space.</p>	No	None	3 years	NFIP Floodplain Administrator, supported by homeowners	\$3 Million	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
				<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>										
2020-Lindenhurst-002	Critical Facility Outreach	2, 6	Flood	<p>Problem: The Village has one critical facility that is located in the floodplain. This facility is privately owned: 676 So. 7Th. St. (Day Care)</p>	Yes	None	Within 6 months	FPA	Staff time	Facility manager aware of flood risk and potential mitigation actions.	Village budget	High	EAP	PI
				<p>Solution: The FPA will conduct outreach with the facility owner to discuss flood risk and potential mitigation actions.</p>										
2020-Lindenhurst-003	Coastal Erosion Monitoring	1, 2, 3, 5	Coastal Erosion, Hurricane, Nor'Easter	<p>Problem: The Village has shoreline which could be exposed to coastal erosion.</p>	No	None	Within 1 year	SCWD, Village Administration	Staff time	Identification of coastal erosion	County budget	High	NSP	NR
				<p>Solution: The Village will participate in a county led erosion monitoring program.</p>										



Table 9.5-15. 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-Lindenhurst-004	Shore Road Park	2, 3, 4, 5	Coastal Erosion, Flood, Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter, Infestation and Invasive Species	<p>Problem: The Village of Lindenhurst proposes to design and implement storm resiliency improvements and public access improvements at the southern end of Shore Road Park.</p> <p>Solution: The Village of Lindenhurst proposes to design and implement storm resiliency improvements and public access improvements at the southern end of Shore Road Park. The plan proposes:</p> <ol style="list-style-type: none"> 1.Construction of low-tide and a high-tide protective shorefront structures (rock sills) with stone boulders to provide storm and erosion protection during wave action at either tide cycle and prevent recurring flooding and reduce wave action for storm protection; 2.Replacement of the existing asphalt road at the southern end of South Bay Street with a gravel road with a gated entry for emergency access 3.Sand and living shoreline vegetation will be placed between the two rock sills and upland landscaping will be placed above the high tide wall on the west side of the area. Drainage improvements including extension of drainage outlets to between the low- and high-tide rock sills, and the addition of tide check valves as a means of protecting the southern end of Shore Road Park from flooding during major storm events; 4.The top of the existing bulkheads along the shore of the eastern portion of the site (former private residential parcels) will be removed to an elevation of 0.08 feet to serve as the low-tide wave break. 	No	Permits required	Within 3 years	Village Administration	Medium	Park more resilient and access improved	HMGP, BRIC, Village budget, environmental grants	High	NSP, SIP	NR, PP



Table 9.5-15. 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
				5 The properties will be regraded and revegetated. Placement of clean fill where needed; 6.A Phragmites Eradication Plan, approved by the NYSDEC, will be implemented and new native coastal vegetation will be planted.										
2020-Lindenhurst-005	Roadway elevation and drainage improvements	1, 2	Flood, Severe Storm	Problem: Numerous roadways are low lying and prone to flooding. Solution: Implement the roadway elevation and drainage improvement project on South Wellwood Avenue from Shore Road and continues south to the Village Marina; South 8th Street flood mitigation in planning stage; South Bay Street flood mitigation in planning stage; Bay view Avenue West in planning stage; Bay view Avenue East road needs to elevated.	No	None	Within 5 year	Engineer, DPW	High	Flood risk reduced	HMGP, BRIC, Village budget	High	SIP	PP
2020-Lindenhurst-006	Backup power at critical facilities	1, 2, 7	All Hazards	Problem: There is still a need for back up generators at the Department of Public Works- Highway Yard and at Lindenhurst Village Hall. Solution: The Village Engineer will research what size generators is necessary to supply backup power to the Highway Yard and Village Hall. The Village will then install backup power generators and necessary electrical components.	Yes	None	1 year	Engineer, OEM	\$50,000 for DPW, \$100,00 for Village Hall.	Ensures continuity of operations of Village Hall and Highway Yard	FEMA HMGP and PDM, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget	High	SIP	PP, ES
2020-Lindenhurst-007	Critical Facility Structural Surveys	1, 2, 8	All Hazards	Problem: Critical facilities must be able to withstand hazard events. Solution: Perform a structural survey of Rainbow Center, Village Hall, Fire Department Buildings, Highway Department Buildings, and emergency	Yes	None	Within 5 years	Engineering	TBD by surveying	Critical facilities secured from storm damage	HMGP, BRIC, CDBG, Village budget	High	SIP	PP





Table 9.5-15. 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
				management buildings to ensure that they are safe during at least a category F3 tornado or correlated wind storm events such as severe storm, hurricane, winter storm, etc.										
2020-Lindenhurst-008	Evacuation Planning	7	Flood, Hurricane, Nor'Easter, Severe Storm, Severe Winter Storm	<p>Problem: Evacuation routes need to remain passable during storm events.</p> <p>Solution: Develop an emergency evacuation roadway plan for key roads, especially south of Montauk Highway, that ensures that these facilities would remain passable during storm event. Identify key high and dry roadway evacuation routes between the bayfront and Village Center. Develop and implement as funding becomes available.</p>	Yes	None	Within 5 years	OEM	\$2,000 for roadway plan, additional mitigation actions costs TBD	Evacuation routes secured	Village budget	High	LPR	ES
2020-Lindenhurst-009	Stormwater Improvements	1, 2, 8	Flood, Severe Storm	<p>Problem: Coastal areas experience regular flooding due to coastal flooding and the impact on drainage, leading to access and emergency response issues. Stormwater improvements could help reduce flooding in the Village.</p> <p>Solution: Work with the Department of Public Works at improving the drainage system in the Village of Lindenhurst. Improvements likely to include upsizing undersized components, adding additional storm drains, and installing new and replacing damaged check valves. In addition, the Village will install a pump system to return floodwater back to the bay. This system will also require backup power to ensure continuity of operations.</p>	No	None	Within 5 year	Engineer, Public Works	\$3M	Increased drainage and reduced flooding risk	New York Rising, HMGP, BRIC, Village budget	High	SIP	SP
	Training for Village staff	6, 7	All hazards	<p>Problem: Village staff require regular training.</p>	No	None	Within 1 year	Village administration	Staff time	Staff trained	Village budget	High	LPR	PR



Table 9.5-15. 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-Lindenhurst-010				Solution: The Village will send building inspectors to FEMA retrofitting classes yearly.										
2020-Lindenhurst-011	Neguntatogue Park	2, 4, 5	Flood, Severe Storm	<p>Problem: Neguntatogue Park is flood prone and requires drainage improvements.</p> <p>Solution: Analyze and assess options available to improve Neguntatogue Park for storm surge and rainwater retention as well as recreational activities. Prioritize project solutions and implement as funding becomes available.</p>	No	None	Within 5 years	Village, NYS DEC	TBD	Increased flood protection and drainage	HMGP, BRIC, Village budget	Medium	NSP, SIP	NR, SP
2020-Lindenhurst-012	Flood Summit Meeting	1, 2, 3, 4, 5, 6, 7, 8	Flood	<p>Problem: Regional flooding issues require collaboration and sharing of information.</p> <p>Solution: Work with the adjacent communities and County to set up a Flood Summit Meeting with engineering divisions of various governmental agencies to discuss procedures, new methods, and standards thereby benefitting from inter-agency collaboration. Develop a mutually beneficial program of regular collaboration.</p>	No	None	Within 1 year	Administration	Staff time	Coordinated regional flood effort	Village budget	High	LPR	PR
2020-Lindenhurst-013	Village EOC	1, 2, 7	All Hazards	<p>Problem: The Village lacks an Emergency Operations Center</p> <p>Solution: Initiate a needs assessment for a Village Emergency Operations Center. Investigate funding options and implement identified improvements as funding becomes available. Potential locations for the EOC include the Lindenhurst Main Firehouse which was recently rebuilt and has available space and the Rainbow Center Senior Center which has a backup generator in place.</p>	Yes	None	Within 1 year	OEM	TBD by needs assessment	Establishment of EOC	Village budget	High	SIP	ES





Notes:

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

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
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

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

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 9.5-16. 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-Lindenhurst-001	Repetitive Loss	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2020-Lindenhurst-002	Critical Facility Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Lindenhurst-003	Coastal Erosion Monitoring	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High
2020-Lindenhurst-004	Shore Road Park	0	1	1	1	1	0	0	1	1	1	1	0	1	1	10	High
2020-Lindenhurst-005	Roadway elevation and drainage improvements	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020-Lindenhurst-006	Backup power at critical facilities	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2020-Lindenhurst-007	Critical Facility Structural Surveys	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2020-Lindenhurst-008	Evacuation Planning	1	1	1	1	1	1	1	1	1	1	1	0	1	1	13	High
2020-Lindenhurst-009	Stormwater Improvements	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020-Lindenhurst-010	Training for Village staff	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Lindenhurst-011	Neguntatogue Park	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High
2020-Lindenhurst-012	Flood Summit Meeting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Lindenhurst-013	Village EOC	1	1	1	1	1	1	0	1	1	1	1	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).



9.5.11 Proposed Mitigation Action Types

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

Table 9.5-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Coastal Erosion	2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013	2020-Lindenhurst-003, 2020-Lindenhurst-004,		2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007,		2020-Lindenhurst-003,		2020-Lindenhurst-006, 2020-Lindenhurst-013
Cyber Security	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Disease Outbreak	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Drought	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Earthquake	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Expansive Soils	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-				2020-Lindenhurst-006, 2020-



Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
		007, 2020-Lindenhurst-013				Lindenhurst-007,				Lindenhurst-013
Extreme Temperature	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Flood	2020-Lindenhurst-008, 2020-Lindenhurst-010, 2020-Lindenhurst-012	2020-Lindenhurst-001, 2020-Lindenhurst-004, 2020-Lindenhurst-005, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-009, 2020-Lindenhurst-011, 2020-Lindenhurst-013	2020-Lindenhurst-004, 2020-Lindenhurst-011	2020-Lindenhurst-002,	2020-Lindenhurst-010, 2020-Lindenhurst-012	2020-Lindenhurst-001, 2020-Lindenhurst-004, 2020-Lindenhurst-005, 2020-Lindenhurst-006, 2020-Lindenhurst-007,	2020-Lindenhurst-002,	2020-Lindenhurst-004, 2020-Lindenhurst-011	2020-Lindenhurst-009, 2020-Lindenhurst-011	2020-Lindenhurst-006, 2020-Lindenhurst-008, 2020-Lindenhurst-013
Groundwater Contamination	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013
Hurricane	2020-Lindenhurst-008, 2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013	2020-Lindenhurst-003, 2020-Lindenhurst-004,		2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007,		2020-Lindenhurst-003, 2020-Lindenhurst-004,		2020-Lindenhurst-006, 2020-Lindenhurst-008, 2020-Lindenhurst-013
Infestation and Invasive Species	2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-	2020-Lindenhurst-004,		2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-		2020-Lindenhurst-004,		2020-Lindenhurst-006, 2020-Lindenhurst-013



Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
		Lindenhurst-007, 2020-Lindenhurst-013				Lindenhurst-007,				
Nor'easter	2020-Lindenhurst-008, 2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013	2020-Lindenhurst-003, 2020-Lindenhurst-004,		2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007,		2020-Lindenhurst-003, 2020-Lindenhurst-004,		2020-Lindenhurst-006, 2020-Lindenhurst-008, 2020-Lindenhurst-013
Severe Storm	2020-Lindenhurst-008, 2020-Lindenhurst-010,	2020-Lindenhurst-001, 2020-Lindenhurst-004, 2020-Lindenhurst-005, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-009, 2020-Lindenhurst-011, 2020-Lindenhurst-013	2020-Lindenhurst-004, 2020-Lindenhurst-011		2020-Lindenhurst-010,	2020-Lindenhurst-001, 2020-Lindenhurst-004, 2020-Lindenhurst-005, 2020-Lindenhurst-006, 2020-Lindenhurst-007,		2020-Lindenhurst-004, 2020-Lindenhurst-011	2020-Lindenhurst-009, 2020-Lindenhurst-011	2020-Lindenhurst-006, 2020-Lindenhurst-008, 2020-Lindenhurst-013
Severe Winter Storm	2020-Lindenhurst-008, 2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013	2020-Lindenhurst-004,		2020-Lindenhurst-010,	2020-Lindenhurst-004, 2020-Lindenhurst-006, 2020-Lindenhurst-007,		2020-Lindenhurst-004,		2020-Lindenhurst-006, 2020-Lindenhurst-008, 2020-Lindenhurst-013
Shallow Groundwater	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013



Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Wildfire	2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007, 2020-Lindenhurst-013			2020-Lindenhurst-010,	2020-Lindenhurst-006, 2020-Lindenhurst-007,				2020-Lindenhurst-006, 2020-Lindenhurst-013

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



9.5.12 Staff and Local Stakeholder Involvement in Annex Development

The Village of Lindenhurst 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: the Administration, Superintendent, and Building Department. The Village Administrator 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 9.5-18. Contributors to the Annex

Name	Title/Entity	Method of Participation
Douglas Madlon	Village Administrator	Primary Point of Contact, attended plan participant meetings, provided impact data, contributed to mitigation strategy
Rick Sorrentiono	Superintendent	Attended plan participant meetings, provided impact data, contributed to mitigation strategy
Tom Maher, Building Inspector	Tom Maher, Building Inspector	Alternate Point of Contact, NFIP Floodplain Administrator

9.5.13 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Lindenhurst 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 Lindenhurst has significant exposure. 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.



Figure 9.5-1. Village of Lindenhurst Hazard Area Extent and Location Map 1

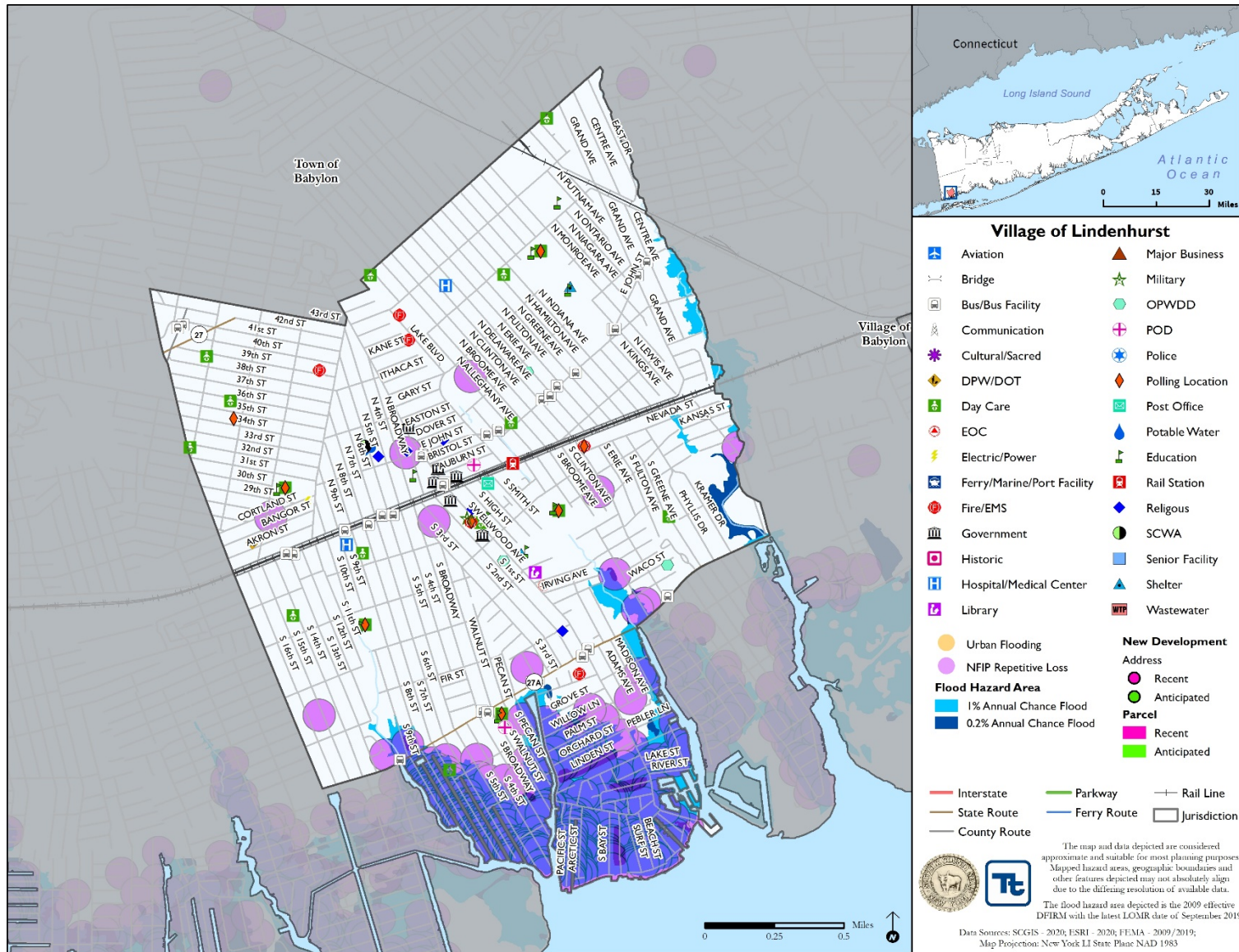




Figure 9.5-2. Village of Lindenhurst Hazard Area Extent and Location Map 2

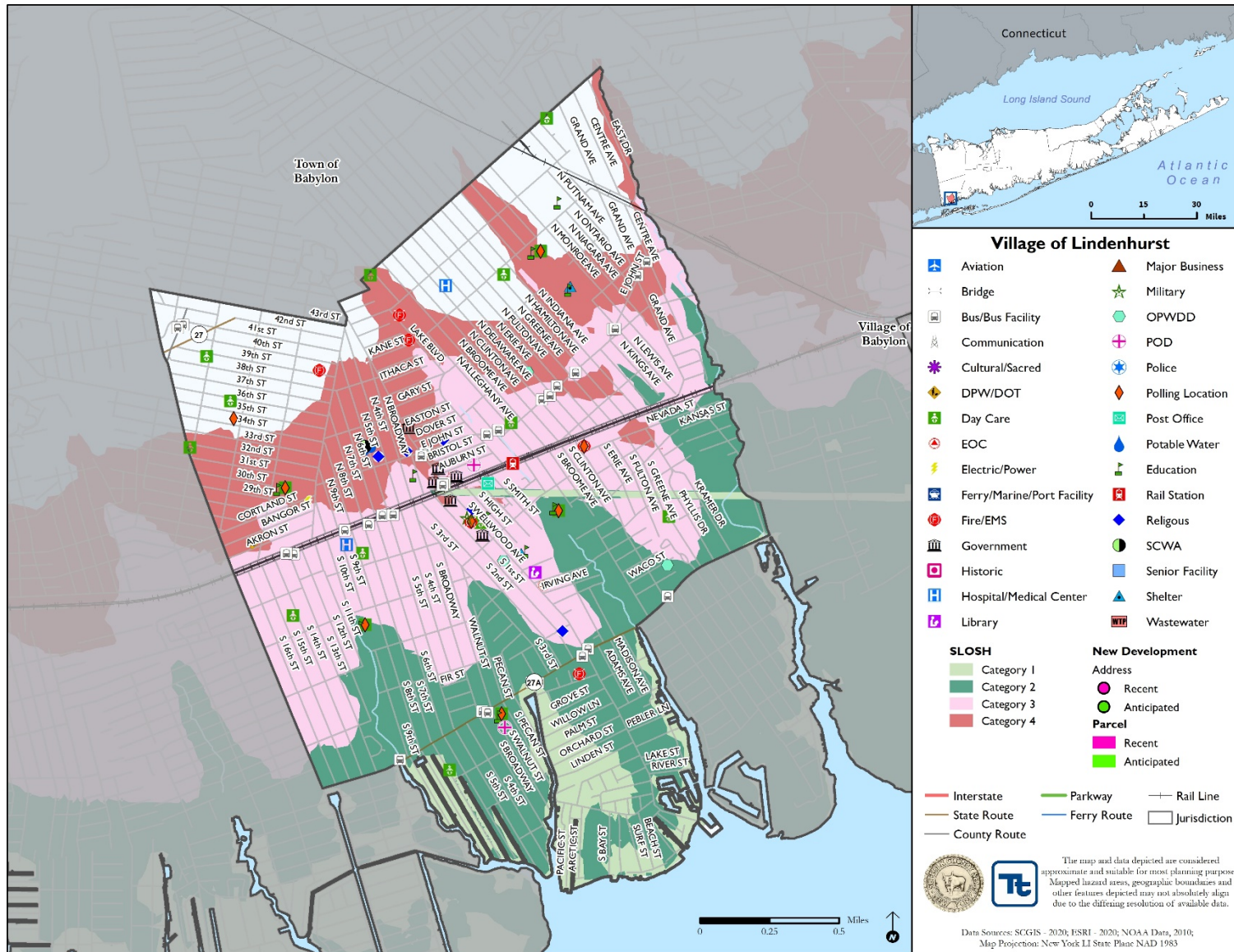




Figure 9.5-3. Village of Lindenhurst Hazard Area Extent and Location Map 3

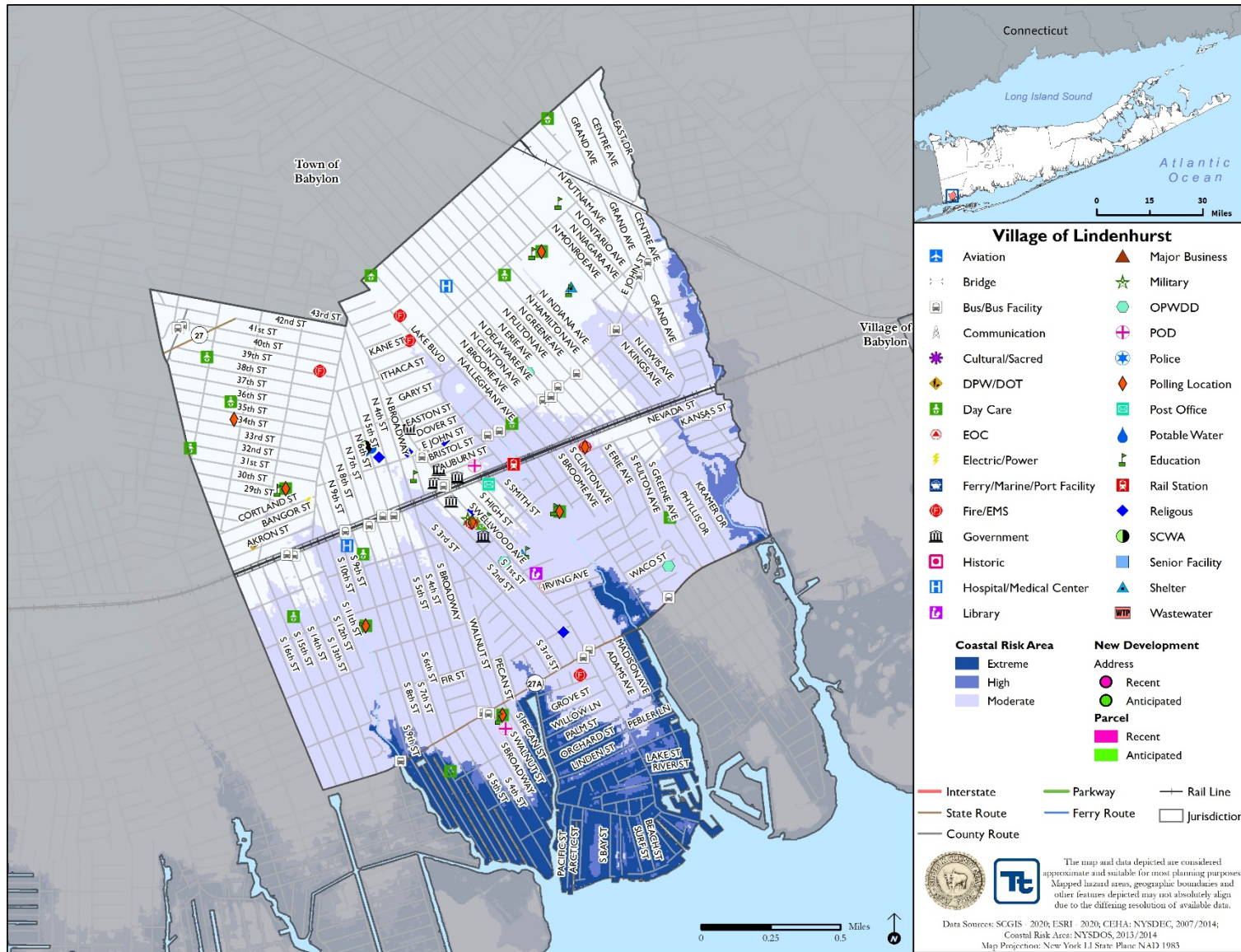
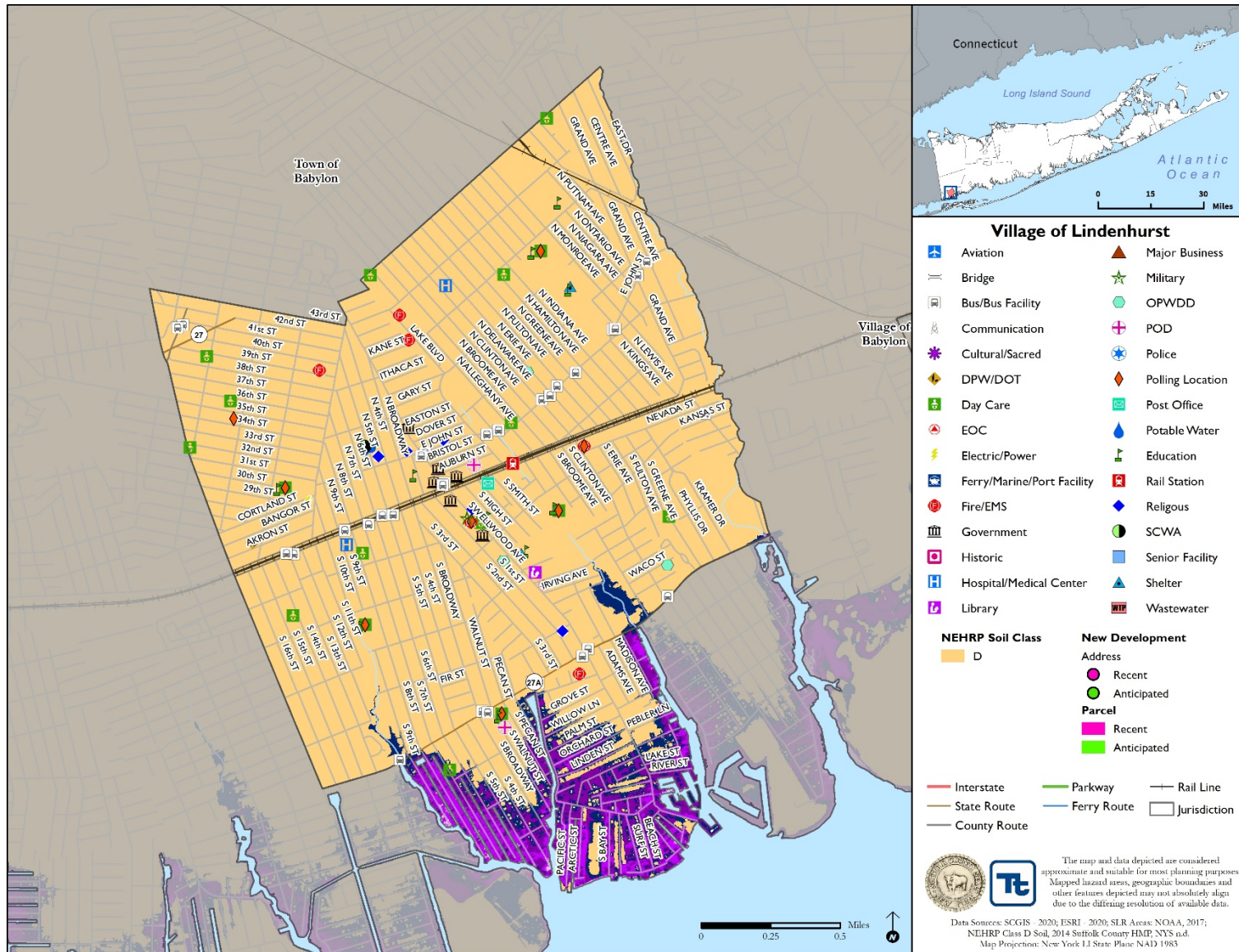




Figure 9.5-4. Village of Lindenhurst Hazard Area Extent and Location Map 4





Action Worksheet			
Project Name:	Repetitive Loss Properties		
Project Number:	2020-Lindenhurst-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties in neighborhoods south of Montauk Highway. These properties have been repetitively flooded as documented by paid NFIP claims. The Village has completed significant mitigation of repetitive loss properties in the past, resulting in 300 homes being elevated and 41 homes acquired for open space.		
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:	
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Action Worksheet		
Project Name:	Repetitive Loss Properties	
Project Number:	2020-Lindenhurst-001	
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	



Action Worksheet			
Project Name:	Backup power at critical facilities		
Project Number:	2020-Lindenhurst-006		
Risk / Vulnerability			
Hazard(s) of Concern:	All hazards		
Description of the Problem:	Backup power sources are necessary to maintain critical services for critical facilities. The Department of Public Works- Highway Yard (180 Albany Avenue) and Lindenhurst Village Hall (430 South Wellwood) lack a permanent power source.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village Engineer will research what size generators is necessary to supply backup power to the Highway Yard and Village Hall. The Village will then install backup power generators and necessary electrical components. Village Hall is estimated to need a gas generator at 100 RPM.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input 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 the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Ensures continuity of operations of Village Hall and Highway Yard
Useful Life:	20 years	Goals Met:	1, 2, 7
Estimated Cost:	\$50,000 for DPW \$100,000 for Village Hall	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Immediately after funding received
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and PDM, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Responsible Organization:	Engineer, OEM	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Backup power at critical facilities	
Project Number:	2020-Lindenhurst-006	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Village Hall and DPW Yard
Property Protection	1	Project will protect Village Hall and DPW Yard from power loss.
Cost-Effectiveness	1	
Technical	1	
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	All hazards
Timeline	1	1 year
Agency Champion	1	Village Board, Engineer
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Stormwater Improvements		
Project Number:	2020-Lindenhurst-009		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Coastal areas south of the Montauk Highway experience regular flooding due to coastal flooding and the impact on drainage, leading to access and emergency response issues. Stormwater improvements could help reduce flooding in the Village.		
Action or Project Intended for Implementation			
Description of the Solution:	The Engineer will work with the Department of Public Works at improving the drainage system in the Village of Lindenhurst. Improvements are likely to include upsizing undersized components, adding additional storm drains, and installing new and replacing damaged check valves. In addition, the Village will install a pump system to return floodwater back to the bay. This system will also require backup power to ensure continuity of operations.		
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 designs	Estimated Benefits (losses avoided):	Increased drainage and reduced flooding risk
Useful Life:	50 years	Goals Met:	1, 2, 8
Estimated Cost:	\$3M	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	New York Rising, HMGP, BRIC, Village budget
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard mitigation, Stormwater management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Elevate all homes and roadways in coastal flooding areas	Tens of millions	Costly
	Retreat from coastal flooding areas	Tens of millions	Costly
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:	Stormwater Improvements	
Project Number:	2020-Lindenhurst-009	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Reduces flooding to maintain emergency response
Property Protection	1	Protects properties and roadways from flooding
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	There is public support for the project
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	0	5 years
Agency Champion	1	Engineer, Public Works
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	