



9.43 Village of Greenport

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

9.43.1 Hazard Mitigation Planning Team

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

Table 9.43-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Paul J. Pallas, P.E., Village Administrator Address: 236 Third Street Greenport, NY 11944 Phone Number: (631) 477-0248 x219 Email: pjpallas@greenportvillage.org	Name/Title: Sylvia Pirillo, Village Clerk Address: 236 Third Street Greenport, NY 11944 Phone Number: (631) 477-0248 x206 Email: spirillo@greenportvillage.org
NFIP Floodplain Administrator	
Name/Title: Paul J. Pallas, P.E., Village Administrator Address: 236 Third Street Greenport, NY 11944 Phone Number: (631) 477-0248 x219 Email: pjpallas@greenportvillage.org	

9.43.2 Municipal Profile

The Village settled in 1640 within the Town of Southold. Before the Revolutionary War, the Village was known as Winter Harbor, and then was known first as Stirling, and then Greenhill. Finally, in 1838, the Village was incorporated into the Town of Southold and was given the name Greenport. The Village is known for its seaports and in earlier days, its whaling and ship building industries. It remains today as one of the central hubs of maritime activity in Suffolk County.

The Village of Greenport is located near the very most eastern tip of the Town of Southold. The Village is governed by a Mayor and Board of four Trustees

According to the U.S. Census, the 2010 population for the Village of Greenport was 2,197. The estimated 2017 population was 1,945, an 11.5 percent decrease from the 2010 Census. Data from the 2017 U.S. Census American Community Survey indicate that 3.0 percent of the population is 5 years of age or younger and 27.0 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.43.3 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 9.43-2 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 9.43-2. 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	1	N/A	1	N/A	0	N/A	1	N/A	1	N/A	0	N/A
Multi-Family	0	N/A	0	N/A	2	N/A	2	N/A	7	N/A	0	N/A
Other (commercial, mixed-use, etc.)	6	N/A	2	N/A	0	N/A	1	N/A	0	N/A	2	1
Total Permits Issued	7	N/A	3	N/A	2	N/A	4	N/A	8	N/A	2	1
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												
Multi-tenant Condominium Complex	Residential	15		123 Sterling Avenue		None		Under Construction				

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.43.4 Capability Assessment

The Village of Greenport 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 9.43.4). The Village of Greenport 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 Greenport and where hazard mitigation has been integrated.

Table 9.43-3. 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?	
						Yes	If no - can it be a mitigation action?
Codes, Ordinances, & Requirements							
Building Code	Yes	Fire Prevention & Building Construction, Chapter 65, adopted 1996	Local	Building Inspector	Yes	Yes	-
Comment: The Ordinance has been updated more recently with State code updates							
Zoning Code	Yes	Zoning Code, Chapter 150, adopted 1975	Local	Zoning Board	No	Yes	-
Comment: The Zoning Code was adopted in order to: <ul style="list-style-type: none"> • The facilitation of the efficient and adequate provision of public facilities and services. • To assure adequate sites for residence, industry and commerce. • The provision of privacy for families. • The prevention and reduction of traffic congestion so as to promote efficient and safe circulation of vehicles and pedestrians. • The maximum protection of residential areas. • The gradual elimination of nonconforming uses. • The enhancement of the appearance of the Village of Greenport as a whole. 							
Subdivisions	Yes	Subdivision and Merger of Land, Chapter 118 of the Village Code	Local	Planning Board	No	Yes	-
Comment: The purpose of these regulations is for the Board of Trustees to require every owner of real property in the Village who subdivides real property to seek and obtain the approval of the Planning Board for that subdivision and to file the map and record of the subdivision in the office of the County Clerk of Suffolk County. The regulations are intended to provide for the orderly growth and development of the Village and to assure the preservation of the environmental aesthetics and assets of the Village and the comfort, convenience, safety and health and welfare of the residents and property owners of the Village and their families and guests.							
Stormwater Management	Yes	Stormwater Management and Erosion and Sediment Control, Chapter 114 of the Village Code	Local	Stormwater Management Officer	Yes	Yes	-
Comment: The Stormwater management ordinance was adopted in order to: <ul style="list-style-type: none"> • Meet the requirements of minimum measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02, as amended or revised; • 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, as amended or revised; • Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels; • Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality; • Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and 							



	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?
<ul style="list-style-type: none"> 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. 							
Post-Disaster Recovery	No	-	-	-	No	-	-
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	Yes	-
Comment:							
Growth Management	No	-	-	-	No	-	-
Comment:							
Site Plan Review	Yes	Approval of Site Development Plan, Chapter 150 Article XI: Planning Board of the Village Code	Local	Planning Board	No	Yes	-
Comment: In considering and acting upon site development plans, the Planning Board shall take into consideration the public health, safety and welfare and the comfort and convenience of the public in general and of the residents of the immediate neighborhood.							
Environmental Protection	Yes	Environmental Quality Review Chapter 61 of the Village Code	Local	Various Departments	Yes	Yes	-
Comment: All agencies of the village are required to comply with the State Environmental Quality Review Act (SEQRA)[1] and its implementing regulations (6 NYCRR Part 617). The purpose of this chapter is to provide the authority for such additional or modified procedures as may be necessary or appropriate for village agencies to implement SEQRA, consistent with the provisions of said implementing regulations (6 NYCRR Part 617).							
Flood Damage Prevention	Yes	Floodplain Development, Chapter 68 of the Village Code, September 21, 2009	Local	Floodplain Administrator	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	-
Comment: The Floodplain Development Ordinance was adopted in order to: <ul style="list-style-type: none"> Protect human life and health. Minimize expenditure of public money for costly flood control projects. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public. Minimize prolonged business interruptions. 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. 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. Provide that developers are notified that property is in an area of special flood hazard. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions." 							
Municipal Separate Storm Sewer System (MS4)	Yes	Stormwater Management: Illicit Discharges,	Local	Stormwater Management Officer	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?	
		Activities, and Connections to Storm Sewers, Chapter 114A of the Village Code					
<p>Comment: The Stormwater Management: Illicit Discharges, Activities, and Connections to Storm Sewers Ordinance was adopted in order to:</p> <ul style="list-style-type: none"> To meet the requirements of the SPDES General Permit for Stormwater Discharges from MS4s, Permit No. GP-02-02, as amended or revised; To regulate the contribution of pollutants to the MS4 since such systems are not designed to accept, process or discharge nonstormwater wastes; To prohibit illicit connections, activities and discharges to the 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 MS4. 							
Emergency Management	No	-	-	-	Yes	-	-
Comment:							
Climate Change	No	-	-	-	Yes	-	-
Comment:							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment:							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment:							
Wetlands	Yes	Coastal and Freshwater Wetlands, Floodplain and Drainage Law, Chapter 142 of the Village Code	Local	Conservation Advisory Council	No	Yes	-
<p>Comment: It is the intent of the Village Board to protect the citizens of the Village of Greenport by providing for the protection, preservation, proper maintenance and use of its watercourses, coastal wetlands, tidal marshes, floodplain lands, freshwater wetlands, watersheds, water recharge areas and natural drainage systems in order to minimize their disturbance, prevent damage from erosion, turbidity or siltation, salt water intrusion, loss of fish, shellfish or other beneficial marine organisms, aquatic wildlife and vegetation and the destruction of the natural habitat thereof, the danger of flood and storm tide damage and pollution, and to otherwise protect the quality of watercourses, coastal wetlands, tidal waters, marshes, shorelines, freshwater wetlands, watersheds and water recharge areas, underground water reserves, beaches and natural drainage systems for their conservation, economic, aesthetic, recreation and other public uses and values and further to protect the Village's potable fresh water supplies from the dangers of drought, overdraft, pollution and misuse or mismanagement. Therefore, the Village Board declares that regulation of the watercourses, coastal wetlands, tidal marshes, floodplain lands, freshwater wetlands, watersheds, water recharge areas and natural drainage systems of Greenport Village is essential to the health, safety, economic and general welfare of the people of Greenport Village and for their interest.</p>							
Waterfront Consistency Review	Yew	Waterfront Consistency Review, Chapter 139 of the Village Code	Local	Various Departments	No	Yes	-
<p>Comment: The purpose of this chapter is to implement the consistency review regulations and procedures for the Village of Greenport Local Waterfront Revitalization Program thereby incorporating environmental factors and consideration of coastal resources into existing planning and decision making processes.</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?	
Planning Documents							
Comprehensive Plan	Yes	LWRP 2014	Local	Village of Greenport	No	Yes	-
Comment: LWRP area is entire village.							
Capital Improvement Plan	No	-	-	-	No	-	-
Comment:							
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	MS4 Annual Reports	Local	Stormwater Management Officer	No	-	-
Comment: MS4 Community reports are completed annually for the Village of Greenport.							
Open Space Plan	No	-	-	-	Yes	-	-
Comment:							
Urban Water Management Plan	No	-	-	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	-	-	No	-	-
Comment:							
Economic Development Plan	Yes	Local Waterfront Revitalization Plan	Local	Village of Greenport	No	Yes	-
Comment: To the extent it is identified in the LWRP.							
Shoreline Management Plan	Yes	Local Waterfront Revitalization Program and Harbor Management Plan, 2014	Local	Village of Greenport	Yes	Yes	-
Comment: The Village of Greenport Local Waterfront Revitalization Program (LWRP) and Harbor Management Plan (HMP) Update is a continuation of its ongoing efforts to define a vision for the Village that maintains its quality of life for its residents while promoting the beneficial use of the Village's waterfront resources and better linking the waterfront with the surrounding community. The Village's initial planning efforts led to the creation of its first LWRP in 1988. The Update is both a land use and a water use plan prepared with significant input by the community. This update provides updates to conditions from the adoption of the initial LWRP and HMP and further refines the vision for the Village's future.							
Community Wildfire Protection	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?	
Plan							
Comment:							
Forest Management Plan	No	-	-	-	No	-	-
Comment:							
Transportation Plan	No	-	-	-	No	-	-
Comment:							
Agriculture Plan	No	-	-	-	Yes	-	-
Comment:							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	No	-	-	-	No	-	-
Comment:							
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	-	-	-	No	-	-
Comment:							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-	Yes	-	-
Comment:							
Post-Disaster Recovery Plan	No	-	-	-	No	-	-
Comment:							
Continuity of Operations Plan	No	-	-	-	No	-	-
Comment:							
Public Health Plan	No	-	-	-	No	-	-
Comment:							
Other	No	-	-	-	No	-	-
Comment:							



Table 9.43-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, all construction and renovation work must have a building permit which is reviewed by the Building Department.
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Fully built out

Administrative and Technical Capability

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

Table 9.43-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	Yes	Board of Trustees and Conservation Advisory Commission
Environmental Board/Commission	Yes	Conservation Advisory Commission for wetlands
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	Have a business improvement district.
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Constant Contact, Village website, Village bulletin board, announcements at regular and work session meetings, ability to make announcements on official radio station and official newspaper
Maintenance programs to reduce risk	Yes	Annual tree trimming and removal of hazardous trees, storm drain cleaning, street sweeping, brush pickup
Mutual aid agreements	Yes	County and neighboring municipalities, fire departments, electric utility has agreements with state and national entities for assistance during major events
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Zoning & Planning Board – also contract service
Engineers or professionals trained in building or infrastructure construction practices	Yes	Director of Utilities
Planners or engineers with an understanding of natural hazards	Yes	Contract service
Staff with expertise or training in benefit/cost analysis	Yes	Various
Professionals trained in conducting damage assessments	Yes	Administrator can assess damage, but no specific training
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Contract service
Scientist familiar with natural hazards	Yes	Contract service



Resources	Available? (Yes or No)	Department/ Agency/Position
NFIP Floodplain Administrator (FPA)	Yes	Building Inspector / Village Administrator
Surveyor(s)	Yes	Contract service
Emergency Manager	Yes	Mayor and Deputy Mayor
Grant writer(s)	Yes	Mayor and various staff personnel
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

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

Table 9.43-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
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
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	Yes

Education and Outreach Capability

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

Table 9.43-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Village Clerk serves as a point of contact for communications with the public.
Personnel skilled or trained in website development?	Privately contracted for updates.
Hazard mitigation information available on your website; if yes, describe	Yes, severe weather, snow, stormwater management, hurricane preparedness.
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, Facebook
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	Conservation Advisory Commission
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Announcements at regular and work session meetings, ability to make announcements on official radio station and official newspaper



Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Warning systems for hazard events; if yes, briefly describe.	Constant Contact, Village website, Village bulletin board
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes, County completes safety programs in schools
Other	No

Community Classifications

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

Table 9.43-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	NP	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	NP	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	NP	-	-
NYSDEC Climate Smart Community	Yes	-	-
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 9.43-9. Adaptive Capacity

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



Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
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 is aware of resources to access available information to determine the possible impacts of climate change upon the municipality and is supportive of integrating climate change in policies or actions. The Village considers increased severity of flood events when raising bulkheads. The Village is conducting solar projects to reduce loading on the electric utility.

9.43.5 National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Paul J. Pallas, P.E., Village Administrator

National Flood Insurance Program (NFIP) Summary

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

Table 9.43-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Village of Greenport	199	148	\$2,654,191	6

Source: FEMA 2020
 Notes: According to FEMA statistics as of 7/13/2020
 RL Repetitive Loss

Flood Vulnerability Summary

Fifty (50) structures were damaged due to flooding following Hurricane Sandy. Twenty (20) businesses and thirty (30) residences sustained flooding damage. Many basements were also flooded. No properties received Substantial Damage determinations. Flood-damaged properties are tracked in property profiles. Any interest in mitigation is kept with these files. Substantial Damage determinations are made by the Building Inspector. None were made following Hurricane Sandy.

Resources

The community FDPO identifies the Building Department as the local NFIP Floodplain Administrator, currently Paul J. Pallas, for which floodplain administration is an auxiliary duty.

Paul J. Pallas is the Village Administrator for the Village of Greenport. He has been tasked with the responsibility of Floodplain Administrator. The Village of Greenport Building Inspector assists on inspections and ensuring permits are code compliant.



Duties and responsibilities of the Building Department/NFIP Administrator are permit review, inspections, damage assessments, record-keeping (general building permit records), and individual assistance to property owners.

Paul J. Pallas feels he is adequately supported and trained to fulfill his responsibilities as the municipal floodplain administrator. Paul J. Pallas is not certified in floodplain management but has many years' experience in damage assessment following major storm and flooding events.

There is no structured public education and outreach in the Village of Greenport. However, the NFIP Floodplain Administrator keeps is available to the community with questions or concerns. Applicants are advised to contact design professionals for site specific mitigation strategies.

Current barriers to running an effective floodplain management program are the lack of personnel to assist and funding. Additional funding is required to overcome these barriers. Further training and guidance on both floodplain administration and the Community Rating System (CRS) would be welcomed.

Compliance History

Village of Greenport joined the NFIP on June 15, 1983 and is currently an active member of the NFIP. The current effective Flood Insurance Rate Maps are dated September 25, 2009. The community's Flood Damage Prevention Ordinance (FDPO), found at Chapter 68 of the local code, was last updated on September 21, 2009.

The community is currently in good standing in the NFIP and has no outstanding compliance issues. Village of Greenport has completed Community Assistance Visits (CAV), with the most recent visit completed on August 8, 2017.

Regulatory

The communities Flood Damage Prevention Ordinance (FDPO) was last updated on September 21, 2009 and is found at Chapter 68 of the local code.

Floodplain management regulations and ordinances comply with FEMA and New York State minimum requirements.

Community Rating System

The Village of Greenport does not participate in the Community Rating System program.

9.43.6 Integration with Other Planning Initiatives

As this HMP update is implemented, the Village of Greenport 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

- The Village of Greenport has a statutory Planning Board (does site plan reviews), statutory Zoning Board of Appeals, Historic Preservation Commission, Conservation Advisory Commission, and Housing Authority.



Opportunities for Future Integration

- **Study of Village Clay Deposits (2020-Greenport-007):** The Moores Lane Wastewater Treatment Plant has drainage issues. Pockets of clay exist in the Village in this location. The Village will study and map the areas of clay to inform placement of drainage basins.

9.43.7 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 Greenport uses County and State established evacuation routes. The Village is reliant on CR-48 in the Town of Southold. A stretch of this roadway is low lying and prone to flooding. The County and the Town are working to address this issue.

When evacuation decisions are being made, the Village uses County and State guidance.

Sheltering

The Village of Greenport relies on the American Red Cross and the Town of Southold for sheltering during hazard events.

Temporary Housing

The Village of Greenport has identified the Moores Lane Ballfield (Polo Grounds) as a potential location for the placement of temporary housing units after a disaster event.

Permanent Housing

The Village of Greenport is fully built out and does not have any available land for the placement of permanent housing.

9.43.8 Hazard Event History Specific to the Village of Greenport

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 Greenport’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 9.43-11 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 9.43-11. 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	Yes	Low pressure that formed along the northern Gulf coast by the morning of Thursday, February 7, 2013 moved	Although the County was impacted, the Village of Greenport did not report any



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
	(FEMA DR-4111)		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.	damages.
June 23, 2015	Thunderstorm Wind, Hail	No	A passing cold front triggered widespread severe thunderstorms across Long Island and isolated severe thunderstorms across the lower Hudson Valley and Queens.	A wind gust of 68 MPH was measured at a mesonet location in Greenport. Property damage likely but not reported.
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 Greenport did not report any damages.

Notes:

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

9.43.9 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes critical facility and community lifeline flood exposure, and the hazards of greatest concern and risk to the Village of Greenport. 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 9.43-12. 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			
Greenport Post Office*	Post Office	X	-	X	Unknown	2020-Greenport-008
Eastern Long Island	Tier 2	X	-	X	Unknown	2020-Greenport-008
Eastern Long Island Heliport*	Aviation	-	-	X	Yes	-
Adams Street*	Transportation	-	-	X	Yes	-
NYS DOT Greenport*	DPW/DOT	-	-	X	Yes	-

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 Greenport. The Village of Greenport 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 Greenport indicated the following:



- The Village changed the hazard ranking for cyber security from medium to low, noting the updates that have been made to cyber security and backup systems that have been put in place.
- The Village changed the hazard ranking for groundwater contamination from medium to low due to minimal potential groundwater contamination services.

Table 9.43-13. Hazard Ranking

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

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Village notes that historically, they suffer more net damages and losses to Nor'Easters than to Hurricanes.
- Coastal flooding is endemic along the waterfront, particularly in the area of the hospital, business district and the bottom of Manor Place.
- The hospital here is vulnerable to coastal flooding to the basement and the first floor, and was evacuated during Sandy. The hospital has a backup generator.
 - The hospital shored up the adjacent shoreline using a minor sea wall. The Village put in a flood retention facility at the end of Manor Place.
- Low spots along Main Road and North Road (CR-48) near Sound Beach gets cut off during coastal flooding events. These road sections are in the Town of Southold (see Town of Southold annex for relevant mitigation actions).
 - A County project is being conducted outside of the Village boundaries to address this issue.
- The Village has several (3) pad-mounted transformers in low-lying areas, including one at Mitchell Park, and are seeking funding to have these elevated.
- Several sewer pump stations in low-lying areas are vulnerable. Pump stations at Claudios, 6th Street Pump Station, and the hospital were flooded during Sandy 6th.
- The center of the Village is a low-lying area with poor drainage, resulting in property and structure flooding. A drainage ditch near Moores Lane, traversing through several drywells and drainage ponds (e.g. Silver Lake), is how the area “de-waters” after storm and flood events. Maintenance of the drainage ditch is identified in the Village MS4 plan.
- Two residential properties on Sandy Beach have building applications in for elevation (both self-funded and/or via flood insurance). Other properties along Sandy Beach might be targets for elevation, but they are seasonal (second) homes.
 - One property was elevated.
- Village owns the electric utility. The Village has won a grant to rebuild the distribution system to make it more resilience. Governors office of storm recovery. Up to \$5 million. To be completed by 2022. Fully contracted project.
- The Village is in the process of designing a rebuild of the central pumping station. The design will include increased building standards and is using municipal funding.



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

- Cove Circle experiences severe beach erosion.
- Front Street floodprone
- Front Street is flood prone.
- Southold Town Beach needs to have several mounds of sand every year so there is still a beach. It has gotten smaller and smaller through the years.

9.43.10 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 9.43-15). Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.

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Table 9.43-14. 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	
VG-1	Assess and prioritize options to bury power transmission lines and implement as funding becomes available.	All Hazards	Village		In Progress; Storm Hardening Project planned. Have 2 nd supply line underground from PSEG.	Cost		<ol style="list-style-type: none"> 1. Include in 2020 HMP 2. Storm Hardening Project for Electric Infrastructure 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
VG-2	Support and participate in county led initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically:							
	<ul style="list-style-type: none"> • Mitigation Education for Natural Disasters (natural hazard awareness and personal scale risk reduction/mitigation public education and outreach program) • Build Local Floodplain Management and Disaster Recovery Capabilities (enhanced floodplain management, and post-disaster assessment and recovery capabilities) • Jurisdictional Knowledge of Mitigation Needs of Property Owners (improved understanding of damages and mitigation interest/activity of private property owners) • Create a Multi-Jurisdictional Seismic Safety Committee in Suffolk County (build regional, county and local capabilities to manage seismic risk, both pre- and post-disaster) 							
	Alignment of Mitigation Initiatives through all levels of Government (effort to build State and Federal level recognition and support of the County and local hazard mitigation planning strategies identified in this plan).							
	See above	All Hazards	Suffolk County, as supported by relevant local department leads,		Ongoing Capability	Cost		<ol style="list-style-type: none"> 1. Discontinue 2. 3. Ongoing Capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
VG-3	Assess and prioritize options for retrofitting, purchasing, or relocating structures located in hazard-prone areas, and implement as funding becomes available	Flood, Nor'Easter, Hurricane, Severe Storm	Town/Village		In Progress; 2 private elevation projects, 2 planned in the Beach Road and Sandy Beach Road area.	Cost		<ol style="list-style-type: none"> 1. Include in 2020 HMP 2. 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		
VG-4	Work together with the County and others to bring CRS training/workshops into the community	Flood, Nor'Easter, Hurricane, Severe	NFIP Floodplain Administrator		Ongoing Capability	Cost		<ol style="list-style-type: none"> 1. Discontinue 2.
						Level of Protection		
						Damages Avoided;		



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.
	where appropriate community officials and staff will actively participate	Storm				Evidence of Success		3. Ongoing Capability
VG-5	Work with County and PSEG (formerly LIPA) to identify roads within the municipality that are considered "critical", and to be the first priority for clearing after an event involving downed power lines.	Severe Storm; Severe Winter Storm; Hurricane; Nor'Easter	PSEG, County		Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing Capability; Village has its own electric utility
						Level of Protection		
						Damages Avoided; Evidence of Success		

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Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Greenport 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 is putting in solar battery backups at the sewage plant and firehouse. Both facilities already have generators as well.
- The hospital shored up the adjacent shoreline using a minor sea wall. The Village put in a flood retention facility at the end of Manor Place.
- Have done cleaning of drainage system.
- Numerous residential properties have replaced bulkheads, many with higher bulkhead elevations in anticipation of sea level rise.
- A living shoreline project was completed in 2019 to construct and plant a new beach and dune to provide greater habitat value and resiliency to erosion through partnership with the Peconic Estuary Program.

Proposed Hazard Mitigation Initiatives for the HMP Update

The Village of Greenport 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 9.43-15 summarizes the comprehensive-range of specific mitigation initiatives the Village of Greenport 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 9.43-16 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 9.43-15. 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-Greenport-001	Floodprone Property Mitigation	1, 2	Flood, Severe Storm	<p>Problem: The Beach Road neighborhood is the most floodprone location and has roughly 30 homes that are exposed to flooding. The entire Village does have flood risk as the highest elevation in the Village is 11 feet.</p> <p>Solution: Conduct outreach to 30 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	No	None	3 years	NFIP Floodplain Administrator, supported by homeowners	\$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
2020-Greenport-002	Electric Utility Resilience	1, 2, 8	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter	<p>Problem: The Village owns the electric utility. The electric infrastructure is prone to damage during storm events.</p> <p>Solution: The Village has won a grant to rebuild the distribution system to make it more resilience. Governors office of storm recovery. Up to \$5 million. To be completed by 2022. Fully contracted project.</p>	No	None	2 years	Village Administration	\$5 million	Electric system more resilient	GOSR	High	SIP	PP
2020-Greenport-003	Floodproof Pump Stations	2, 5	Flood	<p>Problem: Pump stations at Claudios, 6th Street Pump Station, and the hospital were flooded during Sandy and remain at risk to flooding.</p> <p>Solution: The Village will floodproof the pump stations.</p>	Yes	No	1 year	DPW and Engineer	\$200,000 per pump station	Continuity of service maintained during flooding	HMGP, BRIC, Village budget	High	SIP	SP
2020-Greenport-004	Central Pump Station	2, 5	Flood, Severe Storm	<p>Problem: The central pump station is outdated and needs replacement to prevent failure of service.</p>	Yes	No	1 year	DPW and Engineer	\$500,000	Stormwater quickly removed	Village budget	High	SIP	SP



Table 9.43-15. 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
	Rebuild			Solution: The Village is in the process of designing a rebuild of the central pumping station. The design will include increased building standards, backup power, and be floodproofed.										
2020-Greenport-005	Mitchell Park Marina	2, 8	Coastal Erosion, Flood	Problem: 750 feet of bulkheading at Mitchell Park Marina is in need of replacement. Solution: The Village will replace the existing bulkhead with a new bulkhead at a higher elevation to control erosion and reduce the impact of coastal flooding events.	No	None	Within 2 years	Administrator	\$200,000	Bulkhead collapse prevented, flooding reduced	HMGP, BRIC, Village budget	High	SIP	PP, SP
2020-Greenport-006	Moore's Drain	2, 4, 5	Flood, Severe Storm	Problem: The center of the Village is a low-lying area with poor drainage, resulting in property and structure flooding. A drainage ditch, traversing through several drywells and drainage ponds (e.g. Silver Lake), is how the area "de-waters" after storm and flood events. Maintenance of the drainage ditch is identified in the Village MS4 plan. 4 culverts cross the drainage ditch. These culverts are undersized and clog with debris, increasing flood risk. Solution: The Village will conduct an engineering study to redesign the ditch and culverts to prevent debris clogs and reduce flood risk and implement the identified actions. Entire project will involve clearing and cleaning of the ditch, upsizing culverts, and additional identified actions.	No	None	Within 5 years	Administrator	High	Reduction in flood risk, increased drainage	HMGP, BRIC, Village budget	High	SIP	SP
2020-Greenport-007	Study of Village Clay Deposits	6	Severe Storm, Expansive Soils	Problem: The Moore's Lane Wastewater Treatment Plant has drainage issues. Pockets of clay exist in the Village in this location. Solution: The Village will study and map the areas of clay to inform	No	None	Within 2 years	Administration	\$30,000	Identification of clay deposits, informed development decisions	Village budget	High	LPR	PR, SP



Table 9.43-15. 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-Greenport-008	Critical Facilities Outreach	2, 6	Flood	placement of drainage basins. Problem: The Village has one critical facility that is located in the floodplain. This facility is privately owned: Post Office.	Yes ●	None	Within 6 months	FPA	Staff time	Facility manager aware of flood risk and potential mitigation actions.	Village budget	High	EAP	PI
				Solution: The FPA will conduct outreach with the facility owner to discuss flood risk and potential mitigation actions.										
2020-Greenport-009	Transformer Flood Protection	2, 8	Severe Storm, Severe Winter Storm, Hurricane, Nor'Easter	Problem: The Village has several (3) pad-mounted transformers in low-lying areas, including one at Mitchell Park servicing the Marina.	No	None	Within 2 years	Administrator	Medium	Transformers protected from flood damages	HMGP, BRIC, Village budget	High	SIP	PP
				Solution: The Village will elevate the transformers above the 500-year flood level.										
2020-Greenport-010	Coastal Erosion Monitoring	1, 2, 3, 5	Coastal Erosion, Hurricane, Nor'Easter	Problem: The Village has shoreline which could be exposed to coastal erosion.	No	None	Within 1 year	SCWD, Village Administration	Staff time	Identification of coastal erosion	County budget	High	NSP	NR
				Solution: The Village will participate in a county led erosion monitoring program.										

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 9.43-16. 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 Objectives	Total	High / Medium / Low
2020-Greenport-001	Floodprone Property Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2020-Greenport-002	Electric Utility Resilience	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Greenport-003	Floodproof Pump Stations	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2020-Greenport-004	Central Pump Station Rebuild	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2020-Greenport-005	Mitchell Park Marina Bulkhead	0	1	0	1	1	1	0	1	1	1	1	0	1	1	11	High
2020-Greenport-006	Moore's Drain	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2020-Greenport-007	Study of Village Clay Deposits	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2020-Greenport-008	Critical Facilities Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2020-Greenport-009	Transformer Flood Protection	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
2020-Greenport-010	Coastal Erosion Monitoring	0	1	1	1	1	1	0	1	1	1	0	1	1	1	11	High

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



9.43.11 Proposed Mitigation Action Types

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

Table 9.43-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Coastal Erosion		2020-Greenport-005	2020-Greenport-010			2020-Greenport-005		2020-Greenport-010	2020-Greenport-005	
Cyber Security										
Disease Outbreak										
Drought										
Earthquake										
Expansive Soils	2020-Greenport-007				2020-Greenport-007				2020-Greenport-007	
Extreme Temperature										
Flood		2020-Greenport-001, 2020-Greenport-003, 2020-Greenport-004, 2020-Greenport-005, 2020-Greenport-006		2020-Greenport-008		2020-Greenport-001, 2020-Greenport-005	2020-Greenport-008		2020-Greenport-003, 2020-Greenport-004, 2020-Greenport-005, 2020-Greenport-006	
Groundwater Contamination										
Hurricane		2020-Greenport-002, 2020-Greenport-009	2020-Greenport-010			2020-Greenport-002, 2020-Greenport-009		2020-Greenport-010		
Infestation and Invasive Species										
Nor'easter		2020-Greenport-002, 2020-Greenport-009	2020-Greenport-010			2020-Greenport-002, 2020-Greenport-009		2020-Greenport-010		
Severe Storm	2020-Greenport-007	2020-Greenport-001, 2020-Greenport-002, 2020-Greenport-004, 2020-Greenport-006, 2020-Greenport-009			2020-Greenport-007	2020-Greenport-001, 2020-Greenport-002, 2020-Greenport-009			2020-Greenport-004, 2020-Greenport-006, 2020-Greenport-007	
Severe Winter Storm		2020-Greenport-002, 2020-Greenport-009				2020-Greenport-002, 2020-Greenport-009				
Shallow Groundwater										
Wildfire										

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





9.43.12 Staff and Local Stakeholder Involvement in Annex Development

The Village of Greenport 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: Village Administrator and Clerk. 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 9.43-18. Contributors to the Annex

Name	Title/Entity	Method of Participation
Paul J. Pallas, P.E.	Village Administrator	Primary Point of Contact, attended plan participant meetings, provided impact data, contributed to mitigation strategy
Sylvia Pirillo	Village Clerk	Secondary Point of Contact, attended plan participant meetings, provided impact data, contributed to mitigation strategy

9.43.13 Hazard Area Extent and Location

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



Figure 9.43-1. Village of Greenport Hazard Area Extent and Location Map 1

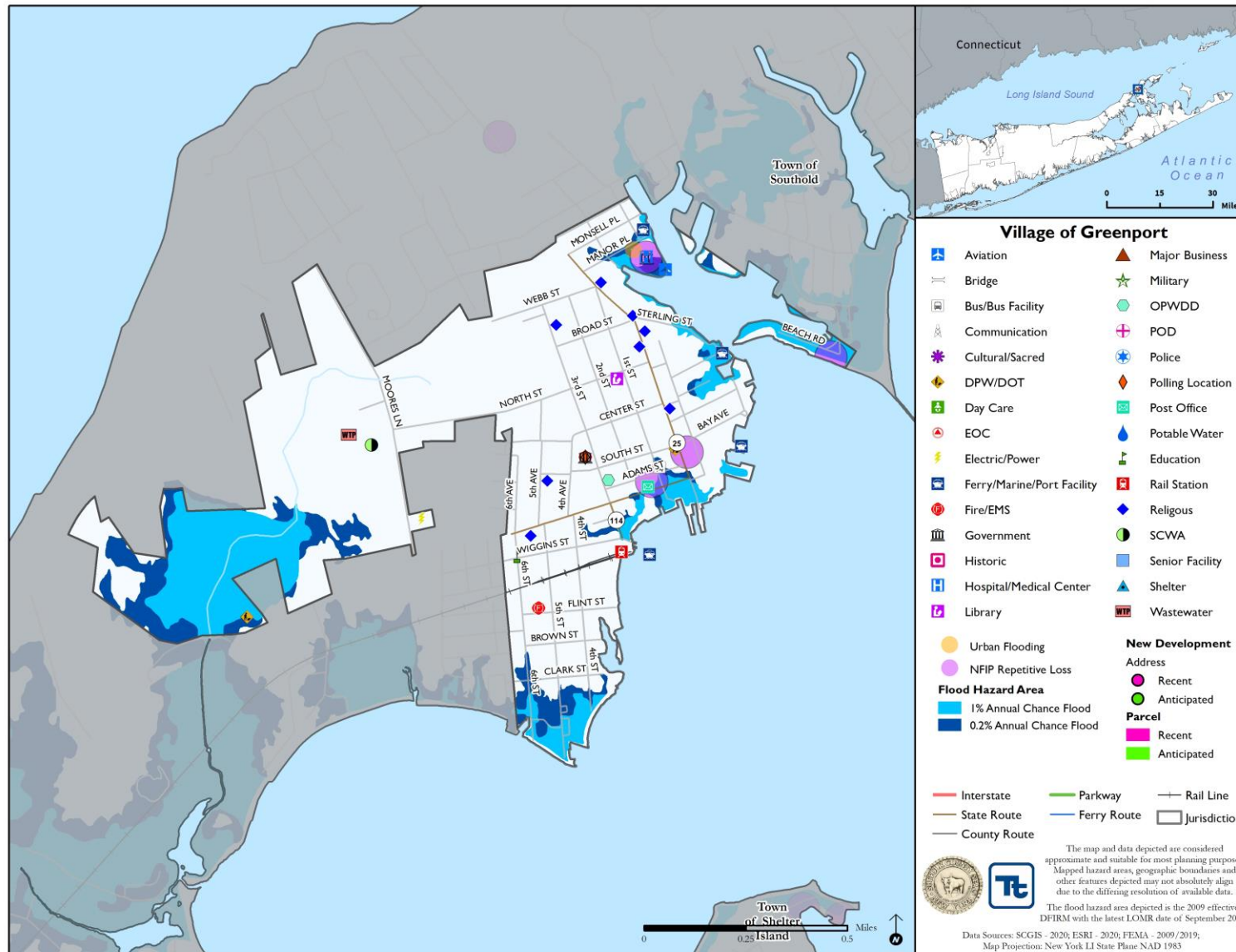




Figure 9.43-2. Village of Greenport Hazard Area Extent and Location Map 2

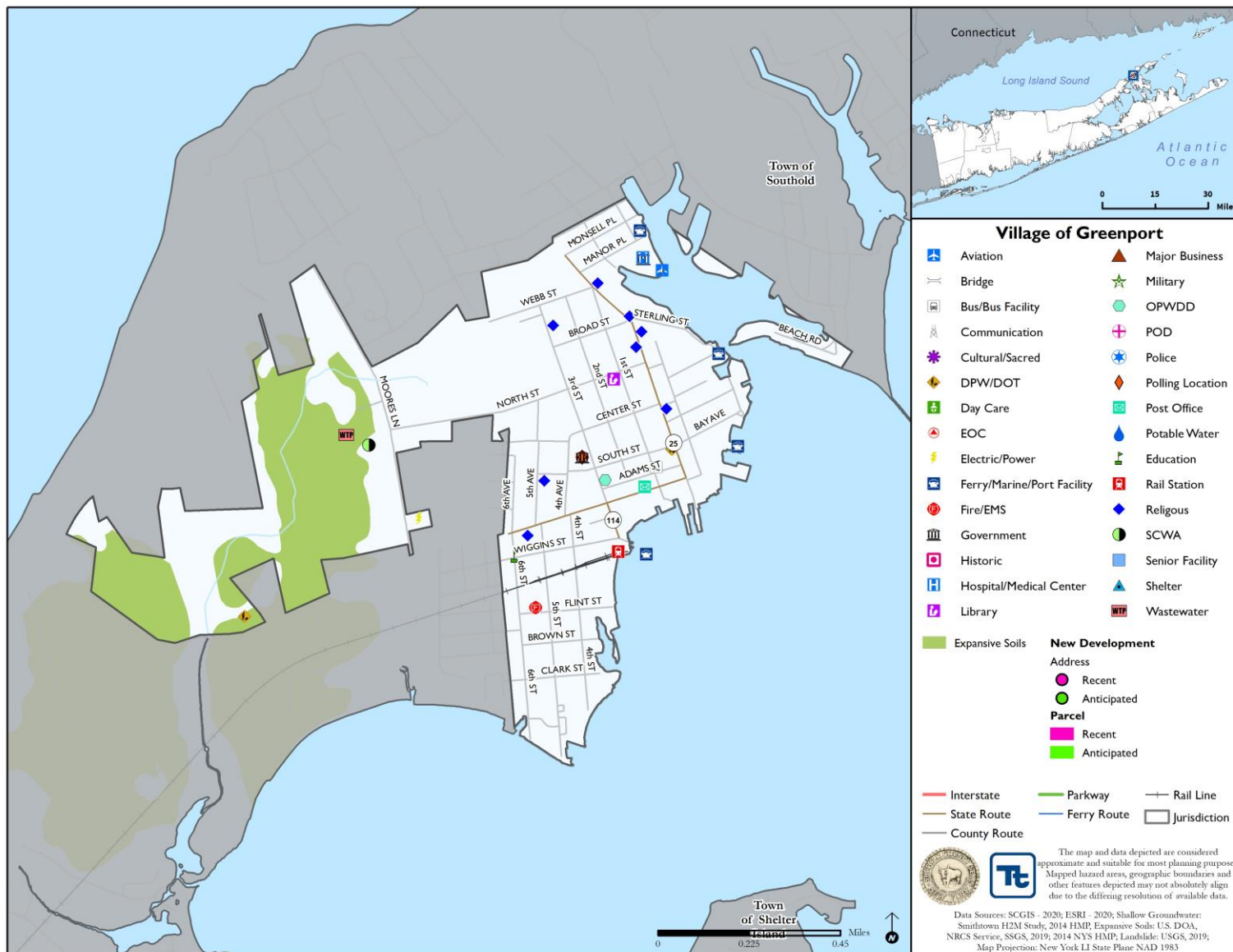




Figure 9.43-3. Village of Greenport Hazard Area Extent and Location Map 3

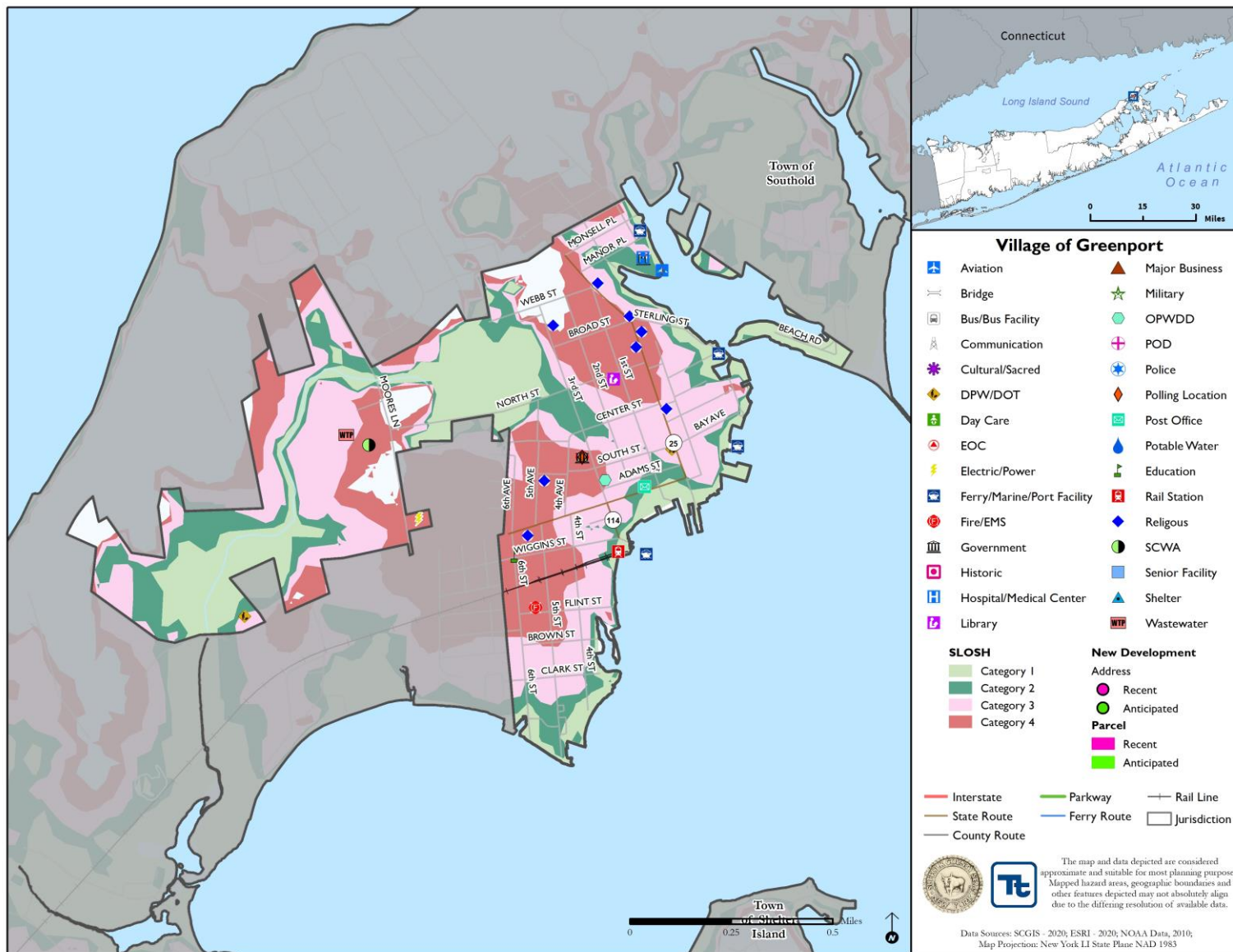




Figure 9.43-4. Village of Greenport Hazard Area Extent and Location Map 4

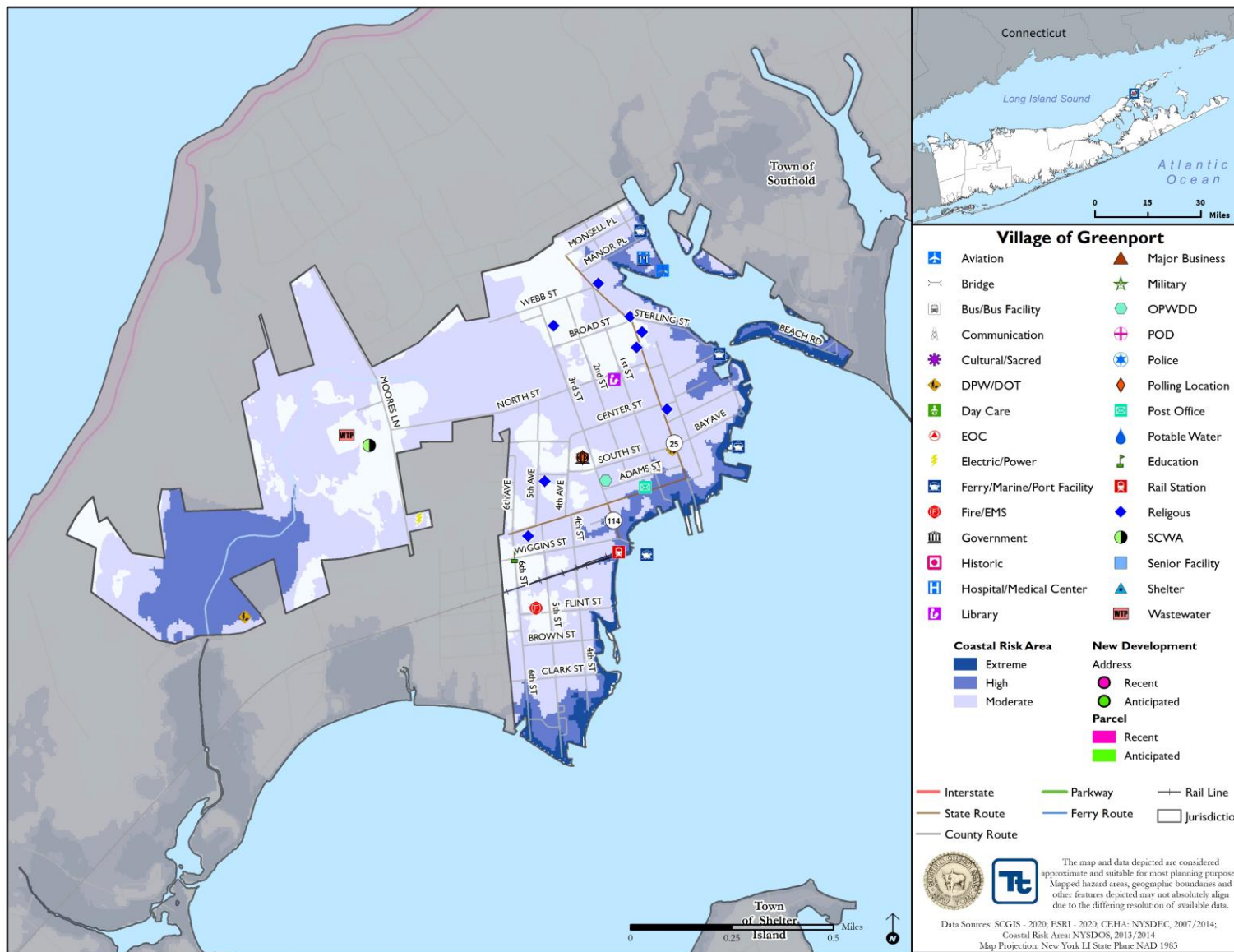




Figure 9.43-5. Village of Greenport Hazard Area Extent and Location Map 5

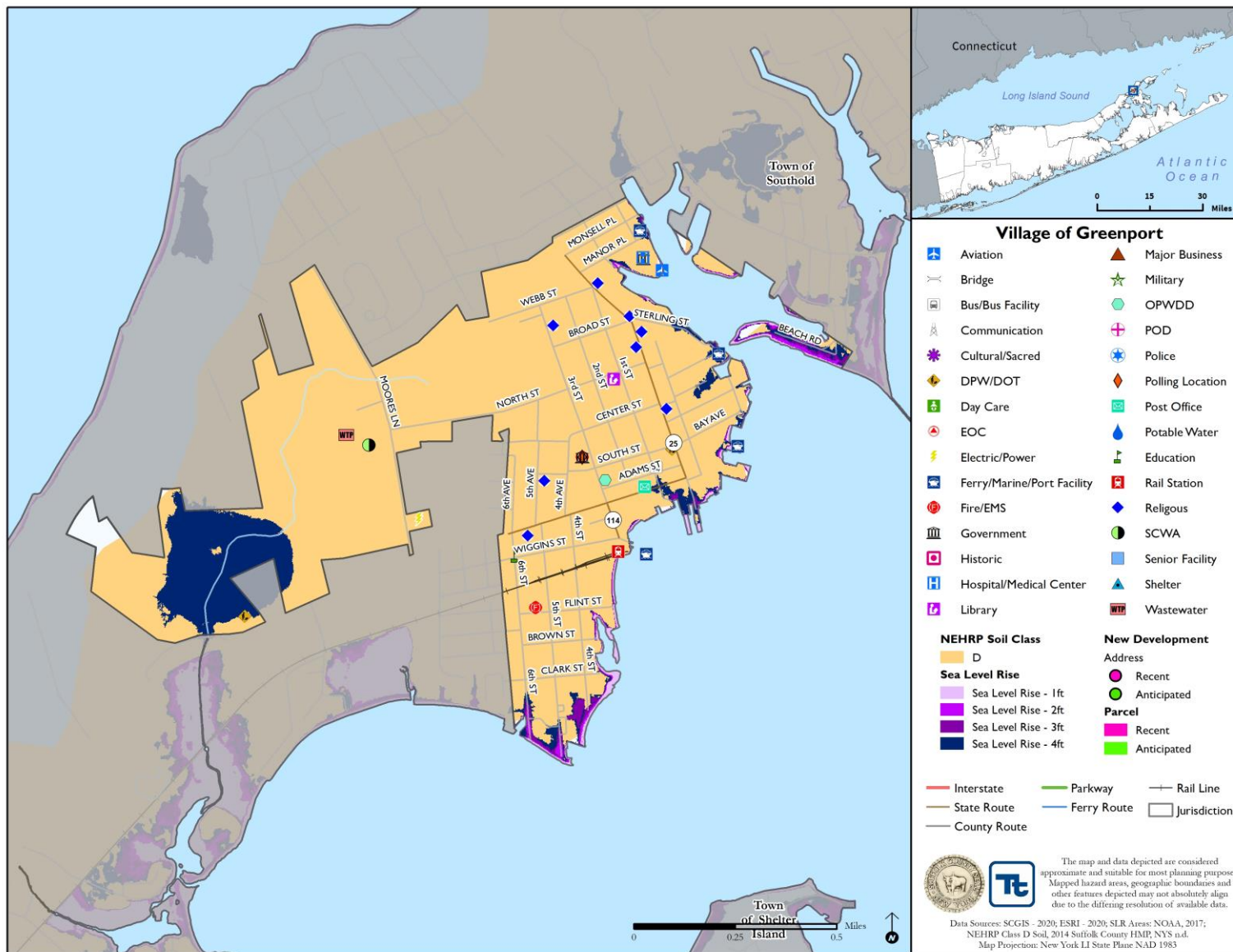
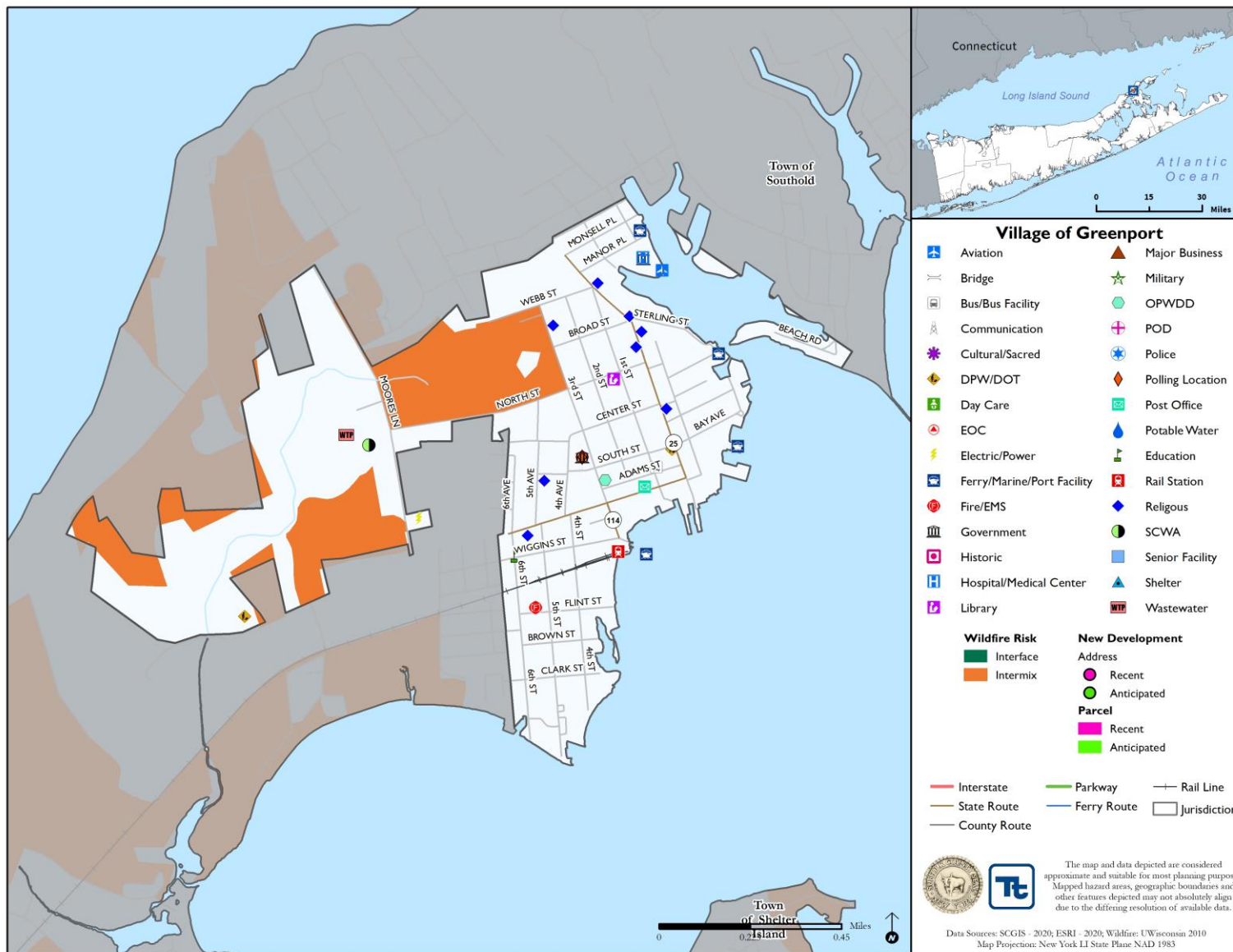




Figure 9.43-6. Village of Greenport Hazard Area Extent and Location Map 6





Action Worksheet			
Project Name:	Floodprone Property Mitigation		
Project Number:	2020-Greenport-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The Beach Road neighborhood is the most floodprone location and has roughly 30 homes that are exposed to flooding. The entire Village does have flood risk as the highest elevation in the Village is 11 feet.		
Action or Project Intended for Implementation			
Description of the Solution:	Conduct outreach to 30 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Level of Protection:	1% annual chance flood event + freeboard (<i>in accordance with flood ordinance</i>)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1, 2
Estimated Cost:	\$3Million	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Floodprone Property Mitigation	
Project Number:	2020-Greenport-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:	Floodproof Pump Stations		
Project Number:	2020-Greenport-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Pump stations at Claudios, 6th Street Pump Station, and the hospital were flooded during Sandy and remain at risk to flooding.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will floodproof the three pump stations. Floodproofing actions may include the following actions: Install door dams, caulking of all conduits, sealing transformers, elevate and waterproof generators.		
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 to the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood level	Estimated Benefits (losses avoided):	Reduction in flood exposure to pump station
Useful Life:	50 years	Goals Met:	2, 5
Estimated Cost:	\$200,000 per pump station	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	1 year
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	HMGP, BRIC, Municipal budget
Responsible Organization:	DPW and Engineer	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	Problem continues.
	Build new pump station uphill	\$500,000	Too expensive
	Sandbags	\$1,000	Requires deployment
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:	Floodproof Pump Stations	
Project Number:	2020-Greenport-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protects pump station from flood damages
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Village has the legal authority to complete the project
Fiscal	0	Project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	2 years
Agency Champion	1	Engineering
Other Community Objectives	1	Protection of critical facilities
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Mitchell Park Marina Bulkhead		
Project Number:	2020-Greenport-005		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Coastal Erosion		
Description of the Problem:	The bulkhead at the Mitchell Park Marina is failing. This could leading to subsidence issues and could cause large scale coastal erosion. 750 feet of bulkheading at Mitchell Park Marina is in need of replacement.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will replace the existing bulkhead with a new bulkhead at a higher elevation to control erosion and reduce the impact of coastal flooding events.		
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:	Bulkhead + 18 inches	Estimated Benefits (losses avoided):	Bulkhead collapse prevented, flooding reduced
Useful Life:	50 years	Goals Met:	2, 8
Estimated Cost:	\$200,000	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:	6 months	Potential Funding Sources:	HMGP, PDM, FMA, County budget
Responsible Organization:	Administrator	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Remove bulkhead	\$100,000	Increased erosion
	Install living shoreline	\$200,000	Not likely to be effective. Too energetic of an environment
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Mitchell Park Marina Bulkhead	
Project Number:	2020-Greenport-005	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Protects properties from flooding, coastal erosion
Cost-Effectiveness	0	
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	Protects marina services
Administrative	1	
Multi-Hazard	1	Flood, Coastal Erosion
Timeline	0	Within 5 years
Agency Champion	1	Administrator
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Moores Drain		
Project Number:	2020-Greenport-006		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The center of the Village is a low-lying area with poor drainage, resulting in property and structure flooding. A drainage ditch, traversing through several drywells and drainage ponds (e.g. Silver Lake), is how the area “de-waters” after storm and flood events. Maintenance of the drainage ditch is identified in the Village MS4 plan. 4 culverts cross the drainage ditch. These culverts are undersized and clog with debris, increasing flood risk.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village will conduct an engineering study to redesign the ditch and culverts to prevent debris clogs and reduce flood risk and implement the identified actions. Entire project will involve clearing and cleaning of the ditch, upsizing culverts, and additional identified actions.		
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 the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	25-year storm event	Estimated Benefits (losses avoided):	Reduction in flood risk, increased drainage
Useful Life:	30 years	Goals Met:	2, 4, 5
Estimated Cost:	\$250,000	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:	3 years	Potential Funding Sources:	HMGP, BRIC, Village budget
Responsible Organization:	Administrator	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 nearby roadway	\$500,000	Costly and may not solve problem
	Elevate homes in the area	\$750,000	Costly and does not solve flooding
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Moores Drain	
Project Number:	2020-Greenport-006	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protects life from flooding.
Property Protection	1	Protects culverts from flood damage
Cost-Effectiveness	0	
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 reduce flooding impacts
Administrative	0	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	Within 5 years
Agency Champion	1	Administrator
Other Community Objectives	1	
Total	9	
Priority (High/Med/Low)	High	