

Village of Bayville Annex

This document presents the Village of Bayville’s annex to the *Nassau County Multi-Jurisdictional Hazard Mitigation Plan*.

Hazard Mitigation Plan Points of Contact

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

Primary Point of Contact	Alternate Point of Contact
Robert E. De Natale, Mayor 34 School Street Bayville, NY 11709 rdenatale@bayvilleny.gov 516-628-1439	Maria Alfano-Hardy, Clerk Treasurer 34 School Street Bayville, NY 11709 clerk@bayvilleny.gov 516-628-1439

Profile

The Village of Bayville covers approximately 1.45 square miles¹ and has a total population of 6,732 according to the American Community Survey 5-year 2018 Estimates. Some of the demographics of the Village of Bayville are summarized in Table 1. This information supported the development of mitigation actions that account for the needs of the most vulnerable individuals in the community.

Table 1: Village of Bayville Demographic Information

Demographic		Demographic	
Below 5 Years Old	3.3%	Black or African American alone	0.3%
Above 65 Years Old	22.6%	American Indian and Alaska Native alone	0.4%
Individuals with Disabilities	5.4%	Asian alone	0.1%
Persons in Poverty	4.7%	Native Hawaiian and other Pacific Islander alone	0.0%
Renters	18.5%	Two or More Races	2.4%
Without a High School Diploma	3.8%	White alone, not Hispanic or Latino, percent	90.1%
Without Access to Broadband Internet	7.3%	Hispanic or Latino	5.6%

¹ This is inclusive of land area only.

Much of the development in Bayville is occurring on the western-end of the jurisdiction. Other development include single-family home renovations and two subdivisions. By understanding these development trends and how they intersect with hazard-prone areas, this allows for current and future vulnerabilities to be planned for and avoided.

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

Hazard Vulnerability

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

The hazards that most impact the Village of Bayville include: **Coastal Hazards, Flooding, and Hurricane.**

Table 2: Village of Bayville Hazard Impacts

Hazard	Impact Categories
Coastal Hazards	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Drought	No Impact
Extreme Temperatures	No Impact
Flooding	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Ground Failure	No Impact
Hurricane and Tropical Storms	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Hail	No Impact
Lightning	No Impact
Severe Winter Weather	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Tornados	No Impact
Wind	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural Cultural Resources

Capability Assessment

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

Legal and Regulatory Capability Assessment

Table 3 lists the assessment of existing legal and regulatory tools for the Village of Bayville. The Village of Bayville maintains several key administrative and technical capabilities to support mitigation, including building codes, community development plans, emergency response plans, flood management plans, NFIP flood damage prevention ordinances, open space plans, site plan review requirements, stormwater management plans, subdivision ordinances, and zoning ordinances. These capabilities are critical to consider as tools in developing and implementing mitigation strategies. To further enhance their mitigation capabilities, the Village can consider the capabilities in the table below that the Village currently does not have. These additional capabilities would either support creating a legal framework or strategy for implementing a diversity of mitigation actions.

Table 3: Village of Bayville Existing Legal and Regulatory Capabilities

Regulatory Tool	Yes / No	Citation (if applicable)
Access and Functional Needs Plan	No	
Building Code	Yes	Village Code Chapters 12 and 13
Capital Improvement Plan	No	
Climate Action Plan	No	
Community Development Plan	Yes	Residential rehabilitation for low-mod income
Comprehensive Plan / Master Plan	No	
Economic Development Plan(s)	No	
Emergency Response Plan(s)	Yes	Nassau County HMP
Floodplain Management Plan(s)	Yes	Village Code Chapter 27
Growth Management Plan(s)	No	
NFIP Flood Damage Prevention Ordinance(s)	Yes	Village Code Chapter 27
Open Space Plan(s)	Yes	Village Code Chapter 43
Post Disaster Recovery Ordinance(s)	No	
Post Disaster Recovery Plan(s)	No	
Real Estate Disclosure Requirements	No	
Resilience Plan(s)	No	
Site Plan Review Requirement(s)	Yes	Village Code Chapter 80

Regulatory Tool	Yes / No	Citation (if applicable)
Small Area Development Plan(s)	No	
Special Purpose Ordinance(s)	No	
Stormwater Management Plan(s)	Yes	MS4 Annual Reports 2010-19
Subdivision Ordinance(s)	Yes	Village Code Chapter 66
Transportation Plan(s)	No	
Zoning Ordinance(s)	Yes	Village Code Chapter 80

Administrative and Technical Capability Assessment

Table 4 lists the assessment of existing administrative and technical tools for the Village of Bayville. The Village of Bayville's primary administrative and technical capabilities include a NFIP floodplain administrator, GIS personnel, and a construction practices personnel. These capabilities provide the Village with specific technical capabilities. The Village can bolster their capabilities in this category by identifying individuals with expertise in land use and natural hazards planning.

Table 4: Village of Bayville Existing Staff / Personnel Resource

Staff / Personnel Resource	Yes / No	Details
Emergency Manager(s)	No	
Engineer(s) trained in construction practices related to buildings/infrastructure	No	
Engineer(s) with an understanding of natural and/or human caused hazards	No	
Engineer(s) with knowledge of land development and land management practices	No	
Grant Writers	No	
Personnel skilled or trained in Geographic Information Systems	Yes	Building Inspector
Personnel trained in construction practices related to buildings/infrastructure	Yes	Building Inspector
Planner(s) with an understanding of natural hazards	No	
Planner(s) with knowledge of land development and land management practices	No	
Scientist(s) familiar with natural hazards	No	
Surveyors	No	

Fiscal Capability Assessment

Table 5 lists the assessment of existing fiscal tools for the Village of Bayville. Funding is often the biggest barrier when implementing mitigation programs. The Village is primarily able to fund mitigation programs by incurring debt through general obligation bonds, utilizing user fees for utility services, CDBG programs, and state mitigation grant programs. Village of Bayville should consider exploring additional fiscal capabilities in order to gain access to additional funding for mitigation.

Table 5: Village of Bayville Existing Fiscal Capabilities

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

Community Classification Assessment

Table 6 lists the assessment of existing community classifications for the Village of Bayville. Participation in the CRS program demonstrates increased capabilities of the Village related to mitigation. Exploring gaining additional community classifications will guide the Village's mitigation programs and support capacity building.

Table 6: Village of Bayville Community Classifications

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

National Flood Insurance Program Summary

All of the Village, east of Bayville Avenue, is in a low lying flood zone. This area is effected mainly by rising sea levels and storm-driven tides. The western area of the Village, along Bayville Avenue in the Business district, is a mix of coastal and shallow flooding. This section provides a summary of the floodplain management capabilities for Village of Bayville and how the jurisdiction is meeting the requirements of the National Flood Insurance Program (NFIP).

The Village's Building Inspector is responsible for floodplain management. Local and online Emergency Management Institute classes will support the future growth of the floodplain management program. The Building Inspector is also a Certified Floodplain Manager and reviews all applications submitted for construction to ensure that all local, state, and federal regulations and building codes related to flood are adhered to. One barrier to running a successful NFIP program in the Village of Bayville is contractors not having enough education about flood zone construction requirements. The flood maps for this jurisdiction accurately portray the current flood risk. There are currently no RiskMAP projects ongoing in this jurisdiction.

After flood events, substantial damage determinations are made by comparing the cost to repair to value of the structure at time of damage. If the cost meets or exceeds 50% of the structure value, the structure is substantially damaged. The Village of Bayville is in good standing with the NFIP. Based on documentation received from NYSDEC, the Village had its last Community Assistance Contact on 11/27/2012 and its last Community Assistance Visit on 10/02/2014. There are no NFIP compliance violations that need to be addressed in this jurisdiction.

The Village assesses storm-damaged properties to determine if they have been substantially damaged. Substantially damaged and substantially improved properties must be mitigated to reduce future losses due to flooding. The Flood Damage Prevention Ordinance for the Village of Bayville meets minimum requirements. The ordinance was last amended 06/22/2009 and can be referenced in Chapter 27. Other steps that the Village takes to support the floodplain management program and meet NFIP requirements include participating in the Community Rating System. Participation in this program helps to reduce flood insurance premiums for Village residents that have policies through the NFIP.

Mitigation Strategy

The following section provides an overview of the mitigation strategy for Village of Bayville. It provides an overview of the jurisdiction's previous mitigation actions, proposed actions, and the NYS mitigation worksheets.

Previous Mitigation Actions

Action	Generator for backup of electrical and communications for Village Hall complex	Storm Surge flood mitigation project	Adams Ave. Pump Station	Pine Lane/First Ave Seawall	President Street drainage project	Arlington Lane drainage project
Risk Category	Various	Flood	Flood	Flood	Flood	Flood
Project Status	Completed	Not Started	Not Started	Completed	In-Progress	Completed
Project Status Description	GENERAC Quietsource series Natural Gas backup generator has been installed and is currently in operating condition.	This project faced overwhelming opposition from the residents for both the excessive cost to the taxpayer and imposing aesthetics of a 13 to 14' high (NAVD88) wall of almost 12,000 linear feet.	New York Rising no longer funding this project.	Residents of Pine Lane performed remediation with private funding.	As per Adam Hornbuckle of the Nassau County Executive's Office, a consultant has been selected but is awaiting their amendment to be approved by the Legislature's rules committee, with an expected work date in October/November 2020. (As per 7/7/2020)	Residents of Arlington Lane performed remediation, including re-grading, paving, and installation of catch basins, to improve flooding conditions on the low-lying northern portion of the road. The source of funds was private.
Carried Forward to 2020 Plan	N/A (Completed)	No	Yes	N/A (Completed)	Yes	N/A (Completed)
Required Changes	N/A (Completed)	No	A new source of funding should be investigated.	N/A (Completed)	Funding source should be changed to Nassau County, as they are taking the lead in the project.	N/A (Completed)

Proposed Mitigation Actions

Project Number	VBY_1	VBY_2	VBY_3	VBY_4	VBY_5
Project Name	Adams Avenue Pump Station Project	Bayville Fire Co. Flood Mitigation Project	Bury Utility Lines	First Avenue Drainage System	President Streets Drainage Project
Goal being met	1, 2, 3	1,3	1, 2, 3	1,2,3	1,2,3
Hazards to be mitigated	Flooding	Flooding	Straight-line winds, hurricanes and tropical storms, tornados	Flooding	Flooding
Description of the Problem	There is a catch basin at the Southern end of Adams Avenue, which is connected to the Bayville Ave drainage system. This basin doesn't drain fast enough to alleviate the flooding of Bayville Ave.	The Bayville Fire Co. building is a pre-FIRM critical facility structure located in a 100-year Flood Plain and experiences flooding during high tide, heavy rain events, Nor'easters, hurricanes, blizzards, and high wind events.	Down power lines due to high winds and fallen trees	Flooding occurs at times of high tide, heavy rain events and during Nor'easters, hurricanes, blizzards, and any high wind event. The east end of the Village is in a Repetitive Loss Area and many homes have sustained repeated flooding and damage dating back to the Nor'easter of 1992.	Flooding occurs making Bayville Avenue impassable in the President Streets area at times of high tide, heavy rain events, and during Nor'easters, hurricanes, blizzards, and other high wind events. Bayville Avenue is the main evacuation route for Village residents.
Description of the Solution	Install a pump station at the Adams Ave catch basin to alleviate the inundation of the drainage system during high tide and/or storm events.	To engineer and install FEMA compliant dry flood-proofing barriers designed to withstand the hydrostatic and hydrodynamic forces of flood waters to the 500-year flood level. This may include certified flood walls and/or utility elevation.	Install underground utility to replace above ground utility poles	Install drainage structures and pumping stations to remove flood waters from streets effectively and efficiently thereby limiting the severity of the damage to existing properties.	Install additional drainage structures, elevate Bayville Avenue, and install pump stations.
Critical Facility	No	Yes	No	No	No
EHP Issues	Unknown	Unknown	Unknown	Unknown	Unknown
Estimated Timeline	One and a half years	One and a half years	Five years	Two Years	Start study and design October 2020
Lead Agency	Village of Bayville	Village of Bayville	LIPA/PSEGLI	Village of Bayville	Nassau County, in coordination with Village of Bayville
Estimated Costs	To be determined	To be determined	To be determined	\$2500000	To be determined

Project Number	VBY_1	VBY_2	VBY_3	VBY_4	VBY_5
Estimated Benefits	Protection of structures, affording residents a safe evacuation route	Protection of firehouse and all rescue equipment.	Reduction in loss of power to residents and Village facilities	Protection of structures thereby reducing repetitive losses.	Protection of structures, affording residents with an evacuation route.
Potential Funding Sources	Grant Funding	Grant Funding	LIPA/PSEGLI	Grant Funding	Nassau County

Mitigation Action Worksheets

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

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Village of Bayville

NYS DHSES Action Worksheet			
Project Name:	President Streets Drainage Project		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Flooding occurs making Bayville Avenue impassable in the President Streets area at times of high tide, heavy rain events, Nor'easters, hurricanes, blizzards, and other high wind events. Bayville Avenue is the main evacuation route for Village residents.		
Action or Project Intended for Implementation			
Description of the Solution:	Install additional drainage structures, elevate Bayville Avenue, and install pump stations.		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100-year (1%) flood	Estimated Benefits (losses avoided):	Protection of structures, affording residents a safe evacuation route.
Useful Life:	30 years		
Estimated Cost:	TBD		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One Year
Estimated Time Required for Project Implementation:	Start study and design in October 2020	Potential Funding Sources:	County funding
Responsible Organization:	Nassau County Department of Public Works	Local Planning Mechanisms to be Used in Implementation, if any:	None
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Install drainage structures only	Unknown	Reduction of flooding but not complete remediation
	Install drainage structures and pump stations but not elevate Bayville Avenue	Unknown	Further reduction of flooding but still short of complete remediation
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Village of Bayville

NYS DHSES Action Worksheet			
Project Name:	First Avenue Drainage System		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	Flooding occurs at times of high tide, heavy rain events and during Nor'easters, hurricanes, blizzards, and any high wind event. The east end of the Village is in a Repetitive Loss Area and many homes have sustained repeated flooding and damage dating back to the Nor'easter of 1992.		
Action or Project Intended for Implementation			
Description of the Solution:	Install drainage structures and pumping stations to remove flood waters from streets effectively and efficiently thereby limiting the severity of the damage to existing properties.		
Is this project related to a Critical Facility?		Yes	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	100-year (1%) flood	Estimated Benefits (losses avoided):	Protection of structures thereby reducing repetitive losses
Useful Life:	30 Years		
Estimated Cost:	\$2,500,000		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	Two Years
Estimated Time Required for Project Implementation:	Two Years	Potential Funding Sources:	Grant funding
Responsible Organization:	Village of Bayville Office of the Clerk-Treasurer	Local Planning Mechanisms to be Used in Implementation, if any:	None
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Install drainage structures only	Unknown	Reduction of flooding but not complete remediation
	Install pump stations only	Unknown	More flood water on streets but could be pumped out more quickly
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Village of Bayville

NYS DHSES Action Worksheet			
Project Name:	Bayville Fire Co. Flood Mitigation Project		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Flooding		
Description of the Problem:	The Bayville Fire Co. building is a pre-FIRM critical facility structure located in a 100-year Flood Plain that experiences flooding during high tides, heavy rain events, Nor'easters, hurricanes, blizzards, and high wind events.		
Action or Project Intended for Implementation			
Description of the Solution:	Engineer and install FEMA compliant dry flood-proofing barriers designed to withstand the hydrostatic and hydrodynamic forces of flood waters to the 500-year flood level. This may include certified flood walls and/or utility elevation.		
Is this project related to a Critical Facility?	Yes	<input checked="" type="checkbox"/>	No
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)			
Level of Protection:	500-year (0.2%) flood	Estimated Benefits (losses avoided):	Protection of firehouse and all rescue equipment.
Useful Life:	50 years		
Estimated Cost:	To be determined		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	One and a half years
Estimated Time Required for Project Implementation:	One and half years	Potential Funding Sources:	Grant funding
Responsible Organization:	Village of Bayville Office of the Clerk-Treasurer	Local Planning Mechanisms to be Used in Implementation, if any:	None
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Satellite staging area for the Fire Company.	Unknown	Allows the Fire Company to continue operations during flood events.
	Relocate the entire firehouse to a higher elevation.	Unknown	Will keep the firehouse from being impacted by flood events.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: Village of Bayville

NYS DHSES Action Worksheet			
Project Name:	Bury Utility Lines		
Project Number:	Leave Blank		
Risk / Vulnerability			
Hazard of Concern:	Straight-line winds, hurricanes and tropical storms, tornados		
Description of the Problem:	Due to frequent high wind events, the above ground electrical grid is vulnerable to damage from falling trees and other storm related debris.		
Action or Project Intended for Implementation			
Description of the Solution:	Install underground utility to replace above ground utility poles		
Is this project related to a Critical Facility?	Yes	<input type="checkbox"/>	No <input checked="" type="checkbox"/>
<small>(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)</small>			
Level of Protection:	Not applicable	Estimated Benefits (losses avoided):	Reduction in loss of power to residents and Village facilities
Useful Life:	30+ years		
Estimated Cost:	To be determined		
Plan for Implementation			
Prioritization:	Leave Blank	Desired Timeframe for Implementation:	5 Years
Estimated Time Required for Project Implementation:	5 plus years	Potential Funding Sources:	LIPA/PSEGLI
Responsible Organization:	LIPA/PSEGLI	Local Planning Mechanisms to be Used in Implementation, if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	Provide hyper-localized power generation	Unknown	Insures uninterrupted power service.
	Create a local stockpile of illumination devices (flashlights, candles, etc.)	\$1,000,000	Provides temporary source of lighting until power is restored.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			