

Village of Manorhaven Annex

This document presents the Village of Manorhaven’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
Sharon Abramski, Village Clerk & Treasurer Village of Manorhaven 33 Manorhaven Boulevard Port Washington, NY 11050 villageclerksharon@manorhaven.org 516-883-7000 x110	Jim Avena, Mayor Village of Manorhaven 33 Manorhaven Boulevard Port Washington, NY 11050 mayoravena@manorhaven.org

Profile

The Village of Manorhaven covers approximately 0.47 square miles¹ and has a total population of 6,627 according to the American Community Survey 5-year 2018 Estimates. Some of the demographics of the Village of Manorhaven 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 Manorhaven Demographic Information

Demographic		Demographic	
Below 5 Years Old	8.7%	Black or African American alone	0.7%
Above 65 Years Old	11.3%	American Indian and Alaska Native alone	0.9%
Individuals with Disabilities	3.6%	Asian alone	20.5%
Persons in Poverty	16.3%	Native Hawaiian and other Pacific Islander alone	0.2%
Renters	64.4%	Two or More Races	2.5%
Without a High School Diploma	6.3%	White alone, not Hispanic or Latino, percent	51.0%
Without Access to Broadband Internet	13.6%	Hispanic or Latino	24.8%

¹ This is inclusive of land area only.

Within the Village, with regard to residential expansion, there has been many conversions from single to two family homes; and a 18 family unit apartment building was recently approved. The Village currently has a population of approximately 6,650 residents and one of the most densely populated villages on Long Island. Business and commercial growth has been slow, but recently approximately 4 businesses opened their doors. Ongoing growth is expected for residential and commercial properties, which have been permitted for construction. The jurisdiction maintains its zoning maps and planning team. 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 Manorhaven. 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 Manorhaven include:
**Coastal Hazards,
 Flooding, and
 Hurricane.**

Table 2: Village of Manorhaven Hazard Impacts

Hazard	Impact Categories
Coastal Hazards	Community, Infrastructure
Drought	No Impact
Extreme Temperatures	No Impact
Flooding	Community, Infrastructure
Ground Failure	No Impact
Hurricane and Tropical Storms	Community, Infrastructure
Hail	No Impact
Lightning	Infrastructure
Severe Winter Weather	Infrastructure
Tornados	No Impact
Wind	Infrastructure

Capability Assessment

This section summarizes the capabilities that the Village of Manorhaven 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 Manorhaven. The Village of Manorhaven maintains several key administrative and technical capabilities to support mitigation, including capital improvement plans, emergency response plans, and stormwater management plans. 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 Manorhaven Existing Legal and Regulatory Capabilities

Regulatory Tool	Yes / No	Citation (if applicable)
Access and Functional Needs Plan	No	
Building Code	No	
Capital Improvement Plan	Yes	
Climate Action Plan	No	
Community Development Plan	No	
Comprehensive Plan / Master Plan	No	
Economic Development Plan(s)	No	
Emergency Response Plan(s)	Yes	
Floodplain Management Plan(s)	No	
Growth Management Plan(s)	No	
NFIP Flood Damage Prevention Ordinance(s)	No	
Open Space Plan(s)	No	
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)	No	
Small Area Development Plan(s)	No	
Special Purpose Ordinance(s)	No	

Regulatory Tool	Yes / No	Citation (if applicable)
Stormwater Management Plan(s)	Yes	
Subdivision Ordinance(s)	No	
Transportation Plan(s)	No	
Zoning Ordinance(s)	No	

Administrative and Technical Capability Assessment

Table 4 lists the assessment of existing administrative and technical tools for the Village of Manorhaven. The Village of Manorhaven has a high level of primary administrative and technical capabilities to support mitigation. This includes management, administration, engineering, construction, and planning. Increasing training capacity and expertise of these individuals will support mitigation practice in the City. Additionally, focusing on analysis and grant writing will support advancing mitigation practice.

Table 4: Village of Manorhaven Existing Staff / Personnel Resource

Staff / Personnel Resource	Yes / No	Details
Emergency Manager(s)	Yes	Village Clerk-Treasurer, Trustee and Mayor
Engineer(s) trained in construction practices related to buildings/infrastructure	Yes	Outside Engineering Firm
Engineer(s) with an understanding of natural and/or human caused hazards	Yes	Outside Engineering Firm
Engineer(s) with knowledge of land development and land management practices	Yes	Outside Engineering Firm
Grant Writers	No	As needed
Personnel skilled or trained in Geographic Information Systems	Yes	Outside Engineering Firm
Personnel trained in construction practices related to buildings/infrastructure	Yes	Building Superintendent and Outside Engineering Firm
Planner(s) with an understanding of natural hazards	Yes	Outside Engineering Firm
Planner(s) with knowledge of land development and land management practices	Yes	Outside Engineering Firm and Village Attorney
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 Manorhaven. Funding is often the biggest barrier when implementing mitigation programs. The Village is primarily able to fund mitigation programs by capital improvements project funding and impact fees for home buyers and/or developers. Village of Manorhaven should consider explore additional fiscal capabilities in order to gain access to additional funding for mitigation.

Table 5: Village of Manorhaven Existing Fiscal Capabilities

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

Community Classification Assessment

Table 6 lists the assessment of existing community classifications for the Village of Manorhaven. Exploring gaining one or more community classifications will guide the Village's mitigation programs and support capacity building.

Table 6: Village of Manorhaven Community Classifications

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

National Flood Insurance Program Summary

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

The Village is a waterfront community and many homes and businesses are within a flood zone and prone to flooding. The Village's Building Superintendent is responsible for floodplain management. The Village administers the NFIP through various activities, including items that come up through the MS4 Annual reports. The Village did not note any current barriers to running a successful NFIP program. The flood maps for this jurisdiction accurately portray the current flood risk. There are currently no RiskMAP projects ongoing in this jurisdiction.

After flood events, substantial damage determinations are made by the Village Engineers. The Village of Manorhaven is in good standing with the NFIP. Based on documentation received from NYSDEC, the Village had its last Community Assistance Contact on 12/05/2012 and its last Community Assistance Visit on 01/22/2020. There are no NFIP compliance violations that need to be addressed in this jurisdiction.

The Flood Damage Prevention Ordinance for the Village of Manorhaven meets minimum requirements. The ordinance was last amended Annually and can be referenced in Village Code Chapter 72 - Flood Damage Prevention.

Mitigation Strategy

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

Previous Mitigation Actions

Action	An elevated permanent generator will be installed at the Manorhaven Sewer Collection and Pump Facility. The new emergency generator will have sufficient capacity to back up the entire Village Sewer facility in an outage and will have the ability to continue collect, processing and dispense Village sewage waste preventing in home back-ups. Emergency alarm systems, gas detection systems, access stairs to the wet well, structural repairs to the pump station and safety measures are also desperately needed at this very old facility.
Risk Category	Loss of Electrical Power
Project Status	Not Started
Project Status Description	The sewer pump station restoration and emergency generator replacement have not been addressed due to a lack of sufficient funding. A new 200KW diesel fuel generator, to be placed outside the building on an elevated platform to be above the 100 year floodplain has been recommended by our Village Engineering firm. The design will detail mechanical, civil, structural and electrical aspects suitable for bidding purposes. A sub-surface investigation would be made to determine soil conditions for the generator platform and a survey performed to determine the grade and elevations. An emergency eyewash station and heating unit would be installed as well as emergency lighting. The second half of the proposed items would be addressed in Phase I-B which would include replacement access steps to the wet well with railings, structural repairs a gas detection system and high wet well alarm system. Manorhaven is seeking funding for Phase I-A and Phase I-B in the amount of \$602,625.
Carried Forward to 2020 Plan	Yes
Required Changes	Yes – Updated description.

Proposed Mitigation Actions

Project Number	VMA_1	VMA_2	VMA_3	VMA_4	VMA_5
Project Name	Force Main Replacement - Phase II - A & Phase II - B	Manorhaven Sewer Restoration Project - Phase I-A and Phase I-B	Manorhaven Sewer Restoration Project - Phase I-C	Sewer Force Main Replacement Study - Phase I	Sewer Force Main Replacement Study - Phase I
Goal being met	3	3	3	3	3
Hazards to be mitigated	Sink holes, ground failure, and flooding	Flooding, Hurricanes, High Wind, Severe Winter Weather	Flooding, Hurricanes, High Wind, Severe Winter Weather	Sink holes, ground failure, and flooding	Sink holes, ground failure, and flooding

Project Number	VMA_1	VMA_2	VMA_3	VMA_4	VMA_5
Description of the Problem	Environmental hazard from possible flooding and deteriorating conditions	The sewer pump station is vulnerable to power outages and flooding caused by hurricanes, severe winter weather, and flooding. There station does not currently have a permanent generator that is protected from the 100-year flood. The pump station also requires a number of upgrades and improvements to the building to ensure safety and structural integrity in the time of disaster.	Environmental hazard from possible flooding and deteriorating conditions	Environmental hazard from possible flooding and deteriorating conditions	Environmental hazard from possible flooding and deteriorating conditions
Description of the Solution	Replacement of Manorhaven's over sixty-year-old sewer force main. Perform recommended repairs per sewer assessment plan.	Install a permanent generator elevated above the 100-year floodplain. Replace and upgrade building components, to include emergency alarm systems, gas detection systems, access stairs to the wet well, structural repairs to the pump station, and other safety measures.	Perform recommended repairs per sewer assessment plan.	A full replacement of the force main is not only needed but critical. A study will be conducted to contribute to information with regard to underground infrastructure, sinkholes, and ground failure as well as the effects of flooding. These hazards make the sanitary sewer system more vulnerable and environmental risks to the community even greater.	A full replacement of the force main is not only needed but critical. A study will be conducted to contribute to information with regard to underground infrastructure, sinkholes, and ground failure as well as the effects of flooding. These hazards make the sanitary sewer system more vulnerable and environmental risks to the community even greater.
Critical Facility	Yes	Yes	Yes	Yes	Yes
EHP Issues	Yes	Yes	Yes	Yes	Yes
Estimated Timeline	TBD	Original Target Date: 2014-2015 New Target Date: Fall 2020	TBD	18 to 24 Months	18 to 24 Months
Lead Agency	Village of Manorhaven	Village of Manorhaven	Village of Manorhaven	Village of Manorhaven	Village of Manorhaven
Estimated Costs	To be determined	\$602625	\$450000	<1,000,000.00	<1,000,000.00
Estimated Benefits	Ability to transport sewage from the Village to the Port Washington Waste Facility.	Continuous sewer function within the Village in times of severe weather that may interrupt power, which otherwise could result in a loss of millions of dollars	Continuous Sewer Function within the Village in times of severe weather that may interrupt power.	Continuous Sewer Function within the Village in times of severe weather that may interrupt power.	Continuous Sewer Function within the Village in times of severe weather that may interrupt power.
Potential Funding Sources	Municipal budget, bonds, Nassau County, New York State	Municipal budget, Bonds, FEMA Hazard Mitigation Grant Program, BRIC	Municipal budget, bonds, FEMA Hazard Mitigation Grant Program, BRIC	Municipal budget, bonds, Nassau County, New York State	Municipal budget, bonds, Nassau County, New York State

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: [Inc. Village of Manorhaven]

NYS DHSES Action Worksheet

Project Name:	Manorhaven Sewer Restoration Project - Phase I-A and Phase I-B]
Project Number:	Leave Blank

Risk / Vulnerability

Hazard of Concern:	Flooding, Hurricanes, High Wind, Severe Winter Weather]
Description of the Problem:	The sewer pump station restoration and emergency generator replacement have not been addressed due to a lack of sufficient funding, putting the village at significant risk if power were to fail in the event of various severe weather events. A new 200KW diesel fuel generator, to be placed outside the building on an elevated platform to be above the one-hundred-year floodplain, has been recommended by our Village Engineering firm. The design will detail the mechanical, civil, structural, and electrical aspects suitable for bidding purposes. A sub-surface investigation would be made to determine soil conditions for the generator platform and a survey performed to determine the grade and elevations. An emergency eyewash station and heating unit would be installed as well as emergency lighting. The second half of the proposed items would be addressed in Phase I-B and would include replacement access steps to the wet well with railings, structural repairs to a gas detection system, and a high wet well alarm system. Manorhaven is seeking funding for Phase I-A and Phase I-B in the amount of \$602,625.]

Action or Project Intended for Implementation

Description of the Solution:	An elevated permanent generator will be installed at the Manorhaven Sewer Collection and Pump Facility. The new emergency generator will have sufficient capacity to back up the entire Village Sewer facility in an outage and will have the ability to continue to collect, process, and dispense Village sewage waste, preventing in-home back-ups. Emergency alarm systems, gas detection systems, access stairs to the wet well, structural repairs to the pump station, and safety measures are also desperately needed at this very old facility.]
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Is this project related to a Critical Facility? Yes 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:	100 Year]	Estimated Benefits (losses avoided):	Continuous sewer function within the Village in times of severe weather that may interrupt power, which otherwise could result in a loss of millions of dollars.]
Useful Life:	30]		
Estimated Cost:	602,625]		

Plan for Implementation

Prioritization:	Leave Blank	Desired Timeframe for Implementation:	Fall 2020]
Estimated Time Required for Project Implementation:	3 to 5 Months]	Potential Funding Sources:	FEMA Hazard Mitigation Grant Program, BRIC]
Responsible Organization:	Inc. Village of Manorhaven]	Local Planning Mechanisms to be Used in Implementation, if any:	Capital Improvement Plan]

Three Alternatives Considered (including No Action)

Alternatives:	Action	Estimated Cost	Evaluation
	[No Action]	[\$0]	
	Install a temporary generator at the Manorhaven Sewer Collection and Pump Facilities]	\$90,000]	Pro: Provides immediate backup power supply Con: May not provide enough power generation; useful life of a temporary generator may be shorter than desired]
	Relocate the Manorhaven Sewer Collection and Pump Facility outside of the 100-year floodplain.]	Millions of dollars]	Pro: generators will not need to be elevated at the new facility Con: It is very cost-prohibitive and no open space to relocate the facility to.]

Progress Report (for plan maintenance)

Date of Status Report:]
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Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Nassau County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction: [Incorporated Village of Manorhaven]

NYS DHSES Action Worksheet

Project Name: Manorhaven Sewer Force Main Replacement Study - Full Replacement]

Project Number: 2

Risk / Vulnerability

Hazard of Concern: Sinkholes, ground failure, and flooding]

Description of the Problem: HISTORY: Over the past two years, Manorhaven has undertaken the task of assessing the condition of its sewer lines, roadways, and sanitary sewer pump station in preparation for repairs and the replacement of its over sixty-year-old sewer force main. In January 2020, the Village began Phase I-A of a sewer main restoration project, an undertaking to line damaged lines and repair cracks and existing damage along Manorhaven Blvd. This was completed in April 2020, with Phase I-B on hold as soon as work is permitted after the pandemic. As the lining and repair work continues over the next several years, Manorhaven will begin a Sewer Pump Station Restoration Project known as Phase I-A, to address critical repairs that need immediate attention and funding.

OVERVIEW: Manorhaven owns a sewer collection system and pump station. The station consists of a wet well, with three centrifugal pumps housed in a separate brick building. The pump station transfers sewage from the Village through its force main to the Port Washington Sewer District Water Pollution Control Plant. After the pump station is fully restored, the Village must replace its ancient sixty-year-old force main which transports sewage to the main processing plant; this is a ticking time bomb for breakages and environmental concerns.]

Action or Project Intended for Implementation

Description of the Solution: A full replacement of the force main is not only needed but critical. A study will be conducted to contribute to information with regard to underground infrastructure, sinkholes, and ground failure as well as the effects of flooding. These hazards make the sanitary sewer system more vulnerable and environmental risks to the community even greater.]

Is this project related to a Critical Facility? Yes 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: Sinkholes, ground failure, and flooding **Estimated Benefits (losses avoided):** Continuous Sewer Function within the Village in times of severe weather that may interrupt power.

Useful Life: 30 - 40+ Years]

Estimated Cost: Several million dollars]

Plan for Implementation

Prioritization: Leave Blank **Desired Timeframe for Implementation:** Spring 2023]

Estimated Time Required for Project Implementation: 18 to 24 months] **Potential Funding Sources:** Municipal budget, bonds, Nassau County, New York State]

Responsible Organization: Inc. Village of Manorhaven] **Local Planning Mechanisms to be Used in Implementation, if any:** Capital Improvement Plan]

Three Alternatives Considered (including No Action)

Alternatives:	<i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	[No Action]	\$0]	
	Partial replacement of force main]	Hundreds of thousands of dollars]	This project is less costly than a full replacement but does not fix the whole problem]
	Sure-up and harden the existing force main]	Hundreds of thousands of dollars]	This project may be less expensive than conducting the full study but will not provide the full protection needed.]

Progress Report (for plan maintenance)

Date of Status Report:]

Report of Progress:]

Update Evaluation of
the Problem and/or
Solution:

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