

# Village of Lawrence Annex

This document presents the Village of Lawrence'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
Ronald Goldman, Village Administrator Village of Lawrence 196 Central Avenue Lawrence, NY 11559 rgoldman@villageoflawrence.org 516-239-4600 Ext. 1010	Geraldo Castro, Deputy Village Administrator Village of Lawrence 196 Central Avenue Lawrence, NY 11559 gcastro@villageoflawrence.org 516-239-4600 Ext. 1031

## Profile

The Village of Lawrence covers approximately 3.72 square miles<sup>1</sup> and has a total population of 6,556 according to the American Community Survey 5-Year 2018 Estimates. Some of the demographics of the Village of Lawrence 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 Lawrence Demographic Information

Demographic	Demographic
Below 5 Years Old	Black or African American alone 0.4%
Above 65 Years Old	American Indian and Alaska Native alone 0.0%
Individuals with Disabilities	Asian alone 2.1%
Persons in Poverty	Native Hawaiian and other Pacific Islander alone 0.0%
Renters	Two or More Races 0.0%
Without a High School Diploma	White alone, not Hispanic or Latino, percent 96.3%
Without Access to Broadband Internet	Hispanic or Latino 1.3%

<sup>1</sup> This is inclusive of land area only.

The Village of Lawrence has become an attractive community and thus people are purchasing properties so that they can be near other close members of their family. Because of this, the Village sees an increase in population as well as a rise in residential development. In the last five years, Lawrence has seen residential development as well as population growth. Development in the 100-Year floodplain includes homes being built and renovated to comply with federal, state, and local regulations. Most property in Lawrence is already developed, with the majority of its permitted land being residential. The jurisdiction continues to maintain zoning and a 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 Lawrence. 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 Lawrence include:  
**Coastal Hazards, Flooding, and Hurricane.**

Table 2: Village of Lawrence Hazard Impacts

Hazard	Impact Categories
Coastal Hazards	Community, Economy, Health and Social Services, Housing, Infrastructure, Natural and Cultural Resources
Drought	Health and Social Services, Natural and Cultural Resources
Extreme Temperatures	Health and Social Services, Infrastructure, Natural and Cultural Resources
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, Health and Social Services

Hazard	Impact Categories
Tornados	No Impact
Wind	Housing, Infrastructure, Natural Cultural Resources

## Capability Assessment

This section summarizes the capabilities that the Village of Lawrence 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 Lawrence. The Village of Lawrence maintains several key administrative and technical capabilities to support mitigation, including building codes, floodplain management plans, NFIP flood damage prevention ordinances, 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 Lawrence Existing Legal and Regulatory Capabilities*

Regulatory Tool	Yes / No	Citation ( <i>if applicable</i> )
Access and Functional Needs Plan	No	
Building Code	Yes	2020 NYS Building Codes, Village Code chapter 70
Capital Improvement Plan	No	
Climate Action Plan	No	
Community Development Plan	No	
Comprehensive Plan / Master Plan	No	
Economic Development Plan(s)	No	
Emergency Response Plan(s)	No	
Floodplain Management Plan(s)	Yes	Village Code chapter 94
Growth Management Plan(s)	No	
NFIP Flood Damage Prevention Ordinance(s)	Yes	Village Code chapter 94
Open Space Plan(s)	No	
Post Disaster Recovery Ordinance(s)	No	
Post Disaster Recovery Plan(s)	No	

<b>Regulatory Tool</b>	<b>Yes / No</b>	<b>Citation (<i>if applicable</i>)</b>
Real Estate Disclosure Requirements	No	
Resilience Plan(s)	No	
Site Plan Review Requirement(s)	Yes	NYS 19 CRR-NY 1203.3, Village Code section 70-12
Small Area Development Plan(s)	No	
Special Purpose Ordinance(s)	No	
Stormwater Management Plan(s)	Yes	Village Code chapter 177
Subdivision Ordinance(s)	Yes	Village Code chapter 182
Transportation Plan(s)	No	
Zoning Ordinance(s)	Yes	Village code chapter 212

## Administrative and Technical Capability Assessment

Table 4 lists the assessment of existing administrative and technical tools for the Village of Lawrence. The Village of Lawrence has a high level of primary administrative and technical capabilities to support mitigation. This includes management, administration, construction, analysis, and planning. Increasing training capacity and expertise of these individuals will support mitigation practice in the Village. Diversifying expertise to be inclusive of engineering skills will also support mitigation practice.

*Table 4: Village of Lawrence Existing Staff / Personnel Resource*

<b>Staff / Personnel Resource</b>	<b>Yes / No</b>	<b>Details</b>
Emergency Manager(s)	Yes	Marc Sicklick - OEM
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	Gerry Castro, Leo Romanelli
Personnel trained in construction practices related to buildings/infrastructure	Yes	Gerry Castro - Dep Admin, Dan Vacchio - Superintendent, James Elliot - Inspector, Leo Romanelli - Inspector

Staff / Personnel Resource	Yes / No	Details
Planner(s) with an understanding of natural hazards	Yes	Gerry Castro - Dep Admin, Dan Vacchio - Superintendent
Planner(s) with knowledge of land development and land management practices	Yes	Gerry Castro
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 Lawrence. Funding is often the biggest barrier when implementing mitigation programs. The Village identified no fiscal capabilities to support mitigation. Village of Lawrence should consider explore additional fiscal capabilities in order to gain access to additional funding for mitigation.

*Table 5: Village of Lawrence 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	No	
Community Development Block Grants (CDBG)	No	
Impact fees for home buyers and/or developers	No	
State mitigation grant programs	No	

## Community Classification Assessment

Table 6 lists the assessment of existing community classifications for the Village of Lawrence. Participation in the BCEGS 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 Lawrence 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

This section provides a summary of the floodplain management capabilities for Village of Lawrence and how the jurisdiction is meeting the requirements of the National Flood Insurance Program (NFIP). The low lying coastal areas in the Village are susceptible to rising tidal water that causes flooding.

The Village's Deputy Administrator and Building Department Superintendent are responsible for floodplain management. The current Village Administrator is also a Certified Floodplain Manager. In-service training describing the processes of identifying structures that fall within the flood zone and require compliance and construction regulations in flood zones will support the Village's floodplain management program in the future. The Village administer the NFIP through in-office pre-construction meetings with property owners, building permit applications, site plan review, and inspections. One barrier to running a successful NFIP program in the Village of Lawrence is the lack of proper tools to assist in floodplain determinations (e.g., GIS maps and software). 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 obtaining certified construction cost estimates and Nassau County property card evaluations to determine whether the 50% threshold has been exceeded. The Village reported that 5 properties were substantially damaged as a result of recent flood events. The Village of Lawrence is in good standing with the NFIP. Based on documentation received from NYSDEC, the Village had its last Community Assistance Contact on 11/28/2012 and its last Community Assistance Visit on 06/12/2014. There are no NFIP compliance violations that need to be addressed in this jurisdiction.

All new construction, substantially improved, or substantially damaged structures are required to comply with flood ordinances and regulations that require different levels of structural mitigation to reduce future damage due to flooding. This mitigation is enforced through the Building Department. The Flood Damage Prevention Ordinance for the Village of Lawrence meets minimum requirements. The ordinance was last amended 09/10/2009 and can be referenced in Local Law 6-2009, Village of Lawrence Code Chapter 94 entitled "Flood Damage Prevention".

Other steps that the Village takes to support the floodplain management program and meet NFIP requirements include adhering to and enforcing the following regulations: Code of Federal Regulations (44 CFR), 2020 NYS Residential Code (R322 - Flood Resistant Construction), 2020

NYS Building Code (Appendix G - Flood Resistant Construction), and Village of Lawrence Code (Chapter 94 - Flood Damage Prevention).

## Mitigation Strategy

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

### Previous Mitigation Actions

Action	A permanent generator will be installed at the Lawrence Cedarhurst Fire Department. It will have sufficient capacity to allow the Fire Station to quickly respond to the community's needs.
Risk Category	Frequent power outages
Project Status	Completed
Project Status Description	
Carried Forward to 2020 Plan	No
Required Changes	

## Proposed Mitigation Actions

Project Number	VLE_1	VLE_2	VLE_3
Project Name	Lawrence Coastal Marsh Restoration	Lawrence Existing Storm Water Infrastructure Upgrades: Collectors	Stormwater Infrastructure Improvements
Goal being met	5	1, 3	1, 2
Hazards to be mitigated	Coastal Flooding	Localized Flooding	Flooding
Priority Ranking	High	High	High
Description of the Problem	Coastal marshes have become eroded from storm events over the course of many years. Due to the erosion, current and future storms pose a greater flood risk to the low-lying adjacent areas.	Insufficiently sized stormwater catch basins and older in-efficient dry wells in unique areas that experience collection of debris often result in localized flooding.	Hurricanes Sandy revealed improvements in the Village's stormwater and wastewater drainage infrastructure.
Description of the Solution	The Village is currently in a study phase that is coordinated with the Town of Hempstead due to jurisdictional overlap.	Smaller catch basins are being upgraded with larger collectors which allow for more time before becoming clogged with debris and rendered ineffective. Older dry wells are being replaced with new ones.	After Hurricane Sandy the Village developed a large-scale plan for storm water infrastructure upgrades. Those plans have since been modified and refined and are at 100% completion. The project is split into four phases and will be bid as such. The bidding process will begin the end of 2020 and it is expected that work will commence winter of 2020/2021.
Critical Facility	No	No	No
EHP Issues	No	No	No
Estimated Timeline	5 Years	3 Years	Target Date: 2014 - 2015  Status: In Progress
Lead Agency	Town of Hempstead	Village of Lawrence	Village of Lawrence Building Department
Estimated Costs	\$20,000,000 - \$50,000,000	\$40,000	\$8,000,000
Estimated Benefits	Prevent large scale flooding during storm events which are characterized by storm surge, high coastal winds, and rain	This action would prevent localized flooding due to debris build-up especially during specific times of the year.	Upgrades to the stormwater and wastewater drainage infrastructure would decrease the risk of flooding in the Village of Lawrence and increase the Village's capability to handle major storm events.
Potential Funding Sources	Federal or State Grant Funding	Village General Funds	The maximum work will be performed under the limitations of the grant funds.

## **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 Lawrence |

<b>NYS DHSES Action Worksheet</b>			
Project Name:	Lawrence Storm Water Infrastructure Upgrades: Collectors		
Project Number:	VLE_2		
<b>Risk / Vulnerability</b>			
Hazard of Concern:	Localized Flooding		
Description of the Problem:	Insufficiently sized stormwater catch basins and older in-efficient dry wells in unique areas that experience collection of debris often result in localized flooding.		
<b>Action or Project Intended for Implementation</b>			
Description of the Solution:	Smaller catch basins are being upgraded with larger collectors which allow for more time before becoming clogged with debris and rendered ineffective. Older dry wells are being replaced with new ones.		
Is this project related to a Critical Facility?      Yes <input type="checkbox"/> <input type="checkbox"/> No <input checked="" type="checkbox"/> <input 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:	0.2%	Estimated Benefits (losses avoided):  This action would prevent localized flooding due to debris build-up especially during specific times of the year.	
Useful Life:	40 years		
Estimated Cost:	\$40,000		
<b>Plan for Implementation</b>			
Prioritization:	High	Desired Timeframe for Implementation:	3 Years
Estimated Time Required for Project Implementation:	3 Years	Potential Funding Sources:	Village General Funds
Responsible Organization:	Village of Lawrence	Local Planning Mechanisms to be Used in Implementation, if any:	
<b>Three Alternatives Considered (including No Action)</b>			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	This is a reactive approach which will lead to consistent floods
	Employee Overtime	\$100,000	Not 100% effective as personnel cannot tend to each and every location during storm events
	Resident Complaint Application	\$3,000	This is a reactive approach which will lead to consistent floods
<b>Progress Report (for plan maintenance)</b>			
Date of Status Report:			
Report of Progress:	New Project		
Update Evaluation of the Problem and/or Solution:			

## Instructions

(Name of Jurisdiction)

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
<b>Risk / Vulnerability</b>			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
<b>Action or Project Intended for Implementation</b>			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input 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:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
<b>Plan for Implementation</b>			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
<b>Three Alternatives Considered (including No Action)</b>			
Alternatives:	— <i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	— Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
<b>Progress Report (for plan maintenance)</b>			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		

## Nassau County Multi-Jurisdictional Hazard Mitigation Plan

**Name of Jurisdiction:** Inc. Village of Lawrence |

<b>NYS DHSES Action Worksheet</b>			
Project Name:	Lawrence Coastal Marsh Restoration		
Project Number:	VLE_1		
<b>Risk / Vulnerability</b>			
Hazard of Concern:	Coastal Flooding		
Description of the Problem:	Coastal marshes have become eroded from storm events over the course of many years. Due to the erosion, current and future storms pose a greater flood risk to the low lying adjacent areas.		
<b>Action or Project Intended for Implementation</b>			
Description of the Solution:	The Village is currently in a study phase that is coordinated with the Town of Hempstead due to jurisdictional overlap.		
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:	1% ( 100 Years)	Estimated Benefits (losses avoided):	Prevent large scale flooding during storm events which are characterized by storm surge, high coastal winds, and rain
Useful Life:	50 years		
Estimated Cost:	\$10,000,000 - \$20,000,000		
<b>Plan for Implementation</b>			
Prioritization:	High	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	Federal or State Grant Funding
Responsible Organization:	Village of Lawrence	Local Planning Mechanisms to be Used in Implementation, if any:	
<b>Three Alternatives Considered (including No Action)</b>			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Coastal developed areas will experience more frequent floods due to lack of protection from the natural salt marshes
	Structural Barriers (Jetty)	\$11,000,000	There are new structures which would have to be located around the existing ineffective salt marsh
Eminent Domain	\$106,750,000	The amount required to purchase the properties and structures is not feasible	
<b>Progress Report (for plan maintenance)</b>			
Date of Status Report:			
Report of Progress:	New Project - Study Phase		
Update Evaluation of the Problem and/or Solution:			

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## Instructions

(Name of Jurisdiction)

NYS DHSES Action Worksheet			
Project Name:	Each action must have a unique project number referenced here and in the Action Tables.		
Project Number:	Each action must have a unique project name referenced here and in the Action Tables.		
<b>Risk / Vulnerability</b>			
Hazard of Concern:	Identify the hazard being addressed with this action.		
Description of the Problem:	Provide a detailed narrative of the problem. Describe the natural hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.		
<b>Action or Project Intended for Implementation</b>			
Description of the Solution:	Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input 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:	Identify the level of protection the proposed project will provide. Ex. 100-year (1%) flood.	Estimated Benefits (losses avoided):	Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.
Useful Life:	Identify the number of years the project will provide protection against the hazard.		
Estimated Cost:	Identify all estimated costs associated with implementation.		
<b>Plan for Implementation</b>			
Prioritization:	Identify the priority based on the prioritization method agreed upon.	Desired Timeframe for Implementation:	Identify the desired start time for this project. Ex. Within 6 months.
Estimated Time Required for Project Implementation:	Provided the estimated time required to complete the project from start to end.	Potential Funding Sources:	Multiple sources of potential funding should be listed when appropriate.
Responsible Organization:	Identify the name of a department or agency responsible for implementation, not the jurisdiction.	Local Planning Mechanisms to be Used in Implementation, if any:	Consider the use of local planning mechanisms that will be used to implement this project.
<b>Three Alternatives Considered (including No Action)</b>			
Alternatives:	— <i>Action</i>	<i>Estimated Cost</i>	<i>Evaluation</i>
	No Action	\$0	
	— Alternative 1 Brief Description		Include a description of pros/cons of Alternative 1.
	Alternative 2 Brief Description		Include a description of pros/cons of Alternative 2.
<b>Progress Report (for plan maintenance)</b>			
Date of Status Report:	This section should be completed during plan maintenance/evaluation.		
Report of Progress:	Describe what progress, if any, has been made on this project. If it has been determined the jurisdiction no longer wishes to pursue implementation, state that here and indicate why.		
Update Evaluation of the Problem and/or Solution:	Provide an updated description of the problem and solution, and what has happened since initial consideration/development.		