



9.28 Town of Sweden

This section presents the jurisdictional annex for the Town of Sweden that provides 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 to reduce or eliminate damage to property and people that can be implemented prior to a disaster. Information presented includes a general overview of the municipality, who in the Town participated in the planning process, an assessment of the Town of Sweden’s risk and vulnerability, the different capabilities used in the Town, and an action plan that will be implemented to achieve a more resilient community.

9.28.1 Hazard Mitigation Planning Team

The Town of Sweden identified the hazard mitigation plan primary and alternate points of contact and developed this plan over the course of several months with input from many Town departments, including the Supervisor, Deputy Supervisor, Planning/Building Department, Code Enforcement, Highway Department. The Supervisor represented the community on the Monroe 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 municipal officials that participated in the development of the annex and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Volume 1, Section 3 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.28-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Kevin G. Johnson, Supervisor Address: 18 State Street, Brockport, NY 14420 Phone Number: 585-637-7588 Email: supervisor@townofsweden.org	Name/Title: Patricia Hayles, Deputy Supervisor Address: 18 State Street, Brockport, NY 14420 Phone Number: 585-637-7588 Email: phayles@townofsweden.org
NFIP Floodplain Administrator	
Name/Title: Phyllis Brudz, Planning/Building Department Address: 18 State Street, Brockport, NY 14420 Phone Number: 585-637-8684 Email: phyllisb@townofsweden.org	
Additional Contributors	
Name/Title: Lyle Stirk, Code Enforcement Officer Method of Participation: Provided data and information, contributed to mitigation strategy	
Name/Title: Ruth Kruppner Highway Department Method of Participation: Provided update on previous mitigation actions	
Name/Title: Brian Ingraham, Superintendent of Highways Method of Participation: Provided update on previous mitigation actions	

9.28.2 Municipal Profile

The Town of Sweden is located on the western border of Monroe County and shares part of its boundary with Orleans and Genesee Counties. The Town consists of 33.5 square miles in land area and 0.2 square mile of water. The Town is bordered by the Town of Clarkson to the north, the Towns of Parma and Ogden to the east, Genesee County to the south, and Orleans County to the west. The Erie Canal passes through the northern part of the



Town and is the only waterbody of significance in the Town. The Town of Sweden was founded in 1814 from the Town of Murray in Orleans County.

According to the U.S. Census, the 2020 population for the Town of Sweden was 6,140, a 3.1 percent increase from the 2010 Census (5,957). Data from the 2020 American Community Survey 5-year Estimates indicate that 7.8 percent of the population is 5 years of age or younger, 17.2 percent is 65 years of age or older, 27.2 percent have disabilities, and 15.3 percent are below the poverty threshold. 0.9 percent of households are non-English speaking. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.28.3 Jurisdictional Capability Assessment and Integration

The Town of Sweden performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume 1, Section 6 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment includes the following analyses:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity to withstand hazard events.

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 the hazard mitigation analysis, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. The updated mitigation strategy provided an opportunity for the Town of Sweden to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

The table below summarizes the regulatory tools that are available to the Town of Sweden. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.

Table 9.28-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>Codes, Ordinances, & Regulations</i>				
Building Code	Yes	Chapter 64 Building Code Administration and Enforcement	State and Local	Code Enforcement Officer, Lyle Stirk
<i>How does this reduce risk?</i> The building codes are strictly enforced to prepare new and renovated buildings as much as possible for hazard related incidents. The Town complies with New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code).				
Zoning/Land Use Code	Yes	Chapter 175 Zoning	Local	Planning Board
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p>The purpose of this chapter is to promote the health, safety, morals and general welfare of the Town of Sweden by regulating the height, number of stories and size of buildings and other structures; the size of yards; the density of population; and the location and use of buildings, structures and land for trade, industry, residence or other purpose, all in accordance with a plan for the development of said Town so as to conserve, stabilize and protect the existing and future properties during the course of such development, and to establish penalties for the violation of such regulations.</p>				
Subdivision Ordinance	Yes	Chapter A177 Land Use Development and Subdivision Regulations	Local	Planning Board
<p><i>How does this reduce risk?</i> The Town's Planning Board is tasked with site plan/subdivision review. The Planning Board pays special attention to ensure that developments mitigate the issues associated natural hazards.</p>				
Site Plan Ordinance	Yes	Chapter A177 Land Use Development and Subdivision Regulations	Local and County	Planning Board
<p><i>How does this reduce risk?</i> The Town of Sweden has a Planning Board and Zoning Board of Appeals that review all applications for development and consider natural hazard risk areas in their review. Many development activities require additional levels of environmental review, specifically New York State Environmental Quality Review (NYS SEQ) and federal National Environmental Policy Act (NEPA) requirements.</p>				
Stormwater Management Ordinance	Yes	Chapter 157 Stormwater Management	Local and State	Public Works, NYS DEC
<p><i>How does this reduce risk?</i> The Town has been given a waiver by the state and is no longer considered an MS4. The Town manages certain areas of responsibility, but the DEC takes on a lot of the required responsibilities.</p> <p>The purpose of Article I Construction Site Stormwater Pollution Prevention and Erosion and Sediment Control is to safeguard public health, protect property, prevent damage to the environment and promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity which disturbs or breaks the topsoil or results in the movement of earth on land in the Town of Sweden. It seeks to meet those purposes by achieving the following objectives:</p> <ol style="list-style-type: none"> (1) 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 or as amended or revised; (2) Require land disturbance activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities or as amended or revised; (3) Minimize increases in stormwater runoff from land disturbance activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels; (4) Minimize increases in pollution caused by stormwater runoff from land disturbance activities which would otherwise degrade local water quality; (5) Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and (6) Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety. <p>The purpose of Article II Design and Management of Post-Construction Stormwater Pollution Prevention Measures is to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing in the watersheds within the Town of Sweden. Therefore, the Town of Sweden establishes this set of water quality and quantity policies to provide reasonable guidance for the regulation of stormwater runoff and, in addition to the above, to safeguard persons, protect property, prevent damage to the environment in Town of Sweden, and comply with the NYSDEC State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Municipal Separate Storm Sewer systems (MS4s), for the purpose of protecting local water resources from degradation. It is determined that the regulation of stormwater runoff discharges from land development projects and other construction activities in order to control and minimize increases in stormwater runoff rates and volumes, soil erosion, stream channel erosion, and nonpoint source pollution associated with stormwater runoff is in the public interest and will prevent threats to public health and safety.</p>				
Post-Disaster Recovery/ Reconstruction Ordinance	No	-	-	-
<p><i>How does this reduce risk?</i></p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent
<i>How does this reduce risk?</i>				
In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.				
Growth Management	No	-	-	-
<i>How does this reduce risk?</i>				
Environmental Protection Ordinance	Yes	Chapter 117 Freshwater Wetlands; Chapter 155 Solid Waste Management	Local	Town Board, Solid Waste Administrator
<i>How does this reduce risk?</i>				
Chapter 117: It is declared to be public policy of the Town Board to preserve, protect and conserve the freshwater wetlands and the benefits derived therefrom; to prevent the despoliation and destruction of freshwater wetlands; and to regulate the development of such wetlands consistent with the general welfare and beneficial to the economic, social and agricultural development of the Town of Sweden.				
Chapter 155: The purpose of this article is to institute a plan for the management of recyclable materials generated or originated in the Town of Sweden, to promote the safety, health and well-being of persons and property within the Town of Sweden and to implement the express policy of the State of New York encouraging solid waste reduction through recycling.				
Flood Damage Prevention Ordinance	Yes	Chapter 112 Flood Damage Prevention	Federal, State, County and Local	Code Enforcement Officer/Building Inspector
<i>How does this reduce risk?</i>				
It is the purpose of this chapter to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:				
A. Regulate uses which are dangerous to health, safety and property due to water or erosion hazards or which result in damaging increases in erosion or in flood heights or velocities.				
B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.				
C. Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters.				
D. Control filling, grading, dredging and other development which may increase erosion or flood damages.				
E. Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.				
F. Qualify for and maintain participation in the National Flood Insurance Program.				
The Ordinance has a 2-foot freeboard requirement for all construction.				
Wellhead Protection	No	-	-	-
<i>How does this reduce risk?</i>				
Emergency Management Ordinance	Yes	Chapter 14 Emergency Services	Local	Town Board
<i>How does this reduce risk?</i>				
The Town of Sweden has established regulations concerning the ambulances services that provide care within the Town. These regulations are to ensure that residential needs are met in the most effective and safe way possible and that they help prevent any conflict of interest between private and public entities.				
Climate Change Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Planning Documents				
Comprehensive Plan	Yes	Town of Sweden Comprehensive Plan, 2019 Amended:	Local	Town of Sweden
<i>How does this reduce risk?</i>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p>The Town of Sweden updated Comprehensive Plan (previous versions from 2002, 2005 and 2015) to focus on development and land use in the Town. The plan includes identification of natural hazard risk areas and environmentally sensitive areas, such as floodplains and wetlands. The Comprehensive Plan contains land use and zoning recommendations for managing hazard risks and directing growth. Some of the recommendations included the following:</p> <ul style="list-style-type: none"> • Encourage innovative engineering standards for effective solutions that enhance aesthetics, safety, and economics and protect the environment. • Require site designs that minimize impacts to the natural environment, impacts of traffic on site and off site, erosion, sedimentation, and storm water runoff. • Work to improve the Town’s ratings under the Federal Emergency Management Agency’s flood insurance Community Rating System, if it is determined that this improvement would be cost effective. • Support private sector efforts to protect significant environmental areas and coordinate these activities with the community’s comprehensive planning program where applicable. • Prepare an Open Space Plan for the protection and preservation of open spaces. (The Open Space Plan should be all-inclusive, covering the entire Town and all resources.) 				
Capital Improvement Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Disaster Debris Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Floodplain Management or Watershed Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Stormwater Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Open Space Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Urban Water Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Habitat Conservation Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Economic Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Shoreline Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Wildfire Protection Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Forest Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Transportation Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Agriculture Plan	No	-	-	-



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<i>How does this reduce risk?</i>				
Climate Action/ Resiliency/Sustainability Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Tourism Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Business/ Downtown Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				
Response/Recovery Planning				
Comprehensive Emergency Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Continuity of Operations Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Substantial Damage Response Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Strategic Recovery Planning Report	No	-	-	-
<i>How does this reduce risk?</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-
<i>How does this reduce risk?</i>				
Post-Disaster Recovery Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Public Health Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Other	No	-	-	-
<i>How does this reduce risk?</i>				

Development and Permitting Capability

The table below summarizes the capabilities of the Town of Sweden to oversee and track development.

Table 9.28-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits?	Yes	-
<ul style="list-style-type: none"> If you issue development permits, what department is responsible? 	N/A	Building Department



Indicate if your jurisdiction implements the following	Yes/No	Comment:
<ul style="list-style-type: none"> If you do not issue development permits, what is your process for tracking new development? 	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	SFHA
Do you have a buildable land inventory?	No	-
<ul style="list-style-type: none"> If you have a buildable land inventory, please describe 	N/A	-
Describe the level of build-out in your jurisdiction.	N/A	The Town still has significant areas of open space/farmland that could be built upon.

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Sweden and their current responsibilities that contribute to hazard mitigation.

Table 9.28-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	Planning Board
Zoning Board of Adjustment	Yes	Zoning Board of Appeals
Planning Department	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	Environmental Conservation Committee
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Public Works/Highway Department	Yes	<p>The Sweden Highway Department is dedicated to maximizing the efficient use of our resources in the construction and maintenance of the Town’s infrastructure. Responsibilities include:</p> <ul style="list-style-type: none"> Brush pickup Maintenance of storm and sanitary sewer systems, including two lift stations Road construction and maintenance Snow and ice removal Culvert pipe replacements Inspection of driveway and row improvements <p>The Town of Sweden Buildings and Grounds Department is responsible for the physical plant of the Sweden Town Park, Sweden/Clarkson Community Center and the Sweden Town Hall. Our crew maintains the buildings inside and out, as well as performs outdoor maintenance such as plowing, mowing and landscaping.</p>
Construction/Building/Code Enforcement Department	Yes	The mission of the Town of Sweden Building Department is to ensure that the health, safety and welfare of our residents are protected through the enforcement of the Building Codes of the State of New York and the applicable codes of the Town of Sweden.
Emergency Management/Public Safety Department	No	-



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Warning Systems / Services (mass notification system, outdoor warning signals, etc.)	No	-
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	See Highway Department and Buildings and Grounds Department
Mutual aid agreements	No	-
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	Landmarks Advisory Committee
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Town engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Town engineer
Planners or engineers with an understanding of natural hazards	Yes	Town engineer
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Secretary to Highway Superintendent
Environmental scientist familiar with natural hazards	No	-
Surveyor(s)	No	-
Emergency Manager	Yes	Fire Marshal
Grant writer(s)	No	-
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

The table below summarizes financial resources available to the Town of Sweden.

Table 9.28-5. 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	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Open Space Acquisition funding programs	No
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Sweden.

Table 9.28-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	No	-
Personnel skilled or trained in website development	No	-
Hazard mitigation information available on your website	Yes	Stormwater management and emergency information
Social media for hazard mitigation education and outreach	No	-
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Residents have the ability to sign up for reverse 911 cell phone notifications of emergencies through the Monroe County Emergency Communications Department.
Natural disaster/safety programs in place for schools	No	-
Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk, and ways to protect themselves during such events? • If yes, please describe.	No	-

Community Classifications

The table below summarizes classifications for community programs available to the Town of Sweden.

Table 9.28-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
New York State Department of Environmental Conservation (NYSDEC) Climate Smart Community	No	-	-
Storm Ready Certification	No	(Monroe County is StormReady)	-
Firewise Communities classification	No	-	-
Other	No	-	-

Note:





N/A Not applicable
- 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). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each identified hazard of concern and the jurisdiction’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.

Table 9.28-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Extreme Temperature	Moderate
Flood	Moderate
Hazardous Materials	Moderate
Infestation and Invasive Species	Weak
Landslide	Moderate
Severe Storm	Strong
Severe Winter Storm	Strong
Wildfire	Moderate

9.28.4 National Flood Insurance Program (NFIP) Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP. The Floodplain Administrator is responsible for maintaining this information and is listed in the Hazard Mitigation Planning Team table at the beginning of this annex.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Sweden.

Table 9.28-9. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties (FMA definition)	# RL Properties (NFIP definition)	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Sweden	6	1	\$1,515	0	-	0	0

Source: FEMA Region 2 2015

Note (1): Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and are current as of June 30, 2015. The total number of repetitive loss properties does not include severe repetitive loss properties. Number of claims represents claims closed by June 30, 2015.

Note (2): Total building and content losses from the claims file provided by FEMA Region 2.

Note (3): Number of policies inside and outside of flood zones is based on latitude and longitude provided by FEMA Region 2 in the policy file.





FEMA noted that for a property with more than one entry, more than one policy may have been in force, or more than one Geographic Information System (GIS) specification was possible. Number of policies and claims, and claims total, exclude properties outside Monroe County boundary, based on provided latitude and longitude coordinates.

RL FMA Definition Any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

RL NFIP Definition Any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978.

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the Town of Sweden.

Table 9.28-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> Do you maintain a list of properties that have been damaged by flooding? 	Flooding is mainly limited to the SFHA. The Town does not maintain a list of properties damaged by flooding. There have been limited claims.
Do you maintain a list of property owners interested in flood mitigation? <ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	No
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what projects are underway. 	No
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	None
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> If there are mitigation properties, how were the projects funded? 	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	Yes
NFIP Compliance	
What local department is responsible for floodplain management?	Building Department
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	No
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	Yes
Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)	Town Engineer reviews developments and the Building Inspector observes the projects
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	NY State Code
What are the barriers to running an effective NFIP program in the community, if any?	None



NFIP Topic	Comments
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? <ul style="list-style-type: none"> If so, state the violations. 	None
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	The most recent Community Assistance Visit was not documented. The most recent Community Assistance Contact was August 13, 2015.
What is the local law number or municipal code of your flood damage prevention ordinance? <ul style="list-style-type: none"> What is the date that your flood damage prevention ordinance was last amended? 	Chapter 112
Does your floodplain management program meet or exceed minimum requirements? <ul style="list-style-type: none"> If exceeds, in what ways? 	Meets minimum requirements
Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Planning Board, Environmental Conservation Board and Town Engineer reviews all site plans.
Does your community plan to join the CRS program or is your community interested in improving your CRS classification?	No

9.28.5 Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must 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 and Procedures

The Town of Sweden identified the following routes and procedures to evacuate residents prior to and during an event.

- The Town does not have any formal evacuation procedures or designated evacuation routes.

Sheltering

The Town of Sweden has identified the following designated emergency shelters within the Town.

Table 9.28-11. Designated Emergency Shelters

Site Name	Address	Capacity (# of people)	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided
The Town does not have any official emergency shelters. It is possible the Community Center could be utilized as a shelter if backup power was installed.							

Temporary Housing

Each jurisdiction must identify sites for placement of temporary housing units to house residents displaced by a disaster. The Town of Sweden has identified the following sites suitable for placing temporary housing units.



Table 9.28-12. Temporary Housing Locations

Site Name	Site Address	Capacity (number of sites)	Type	Infrastructure / Utilities Available (water, electric, septic, etc.)	Actions Required to Ensure Conformance with the NYS Uniform Fire Prevention and Building Code
None identified					

Permanent Housing

Structures located in the regulatory floodplain might need to be relocated due to high flood risk or new properties must be built once severely damaged properties are demolished. Jurisdictions must identify suitable sites currently owned by the jurisdiction and potential sites under private ownership that meet applicable local zoning requirements and floodplain laws. The Town of Sweden has identified the following areas suitable for relocating homes outside of the floodplain.

Table 9.28-13. Permanent Housing Locations

Site Name	Site Address	Capacity (number of sites)	Type	Infrastructure / Utilities Available (water, electric, septic)	Actions Required to Ensure Conformance with the NYS Uniform Fire Prevention and Building Code
None identified					

9.28.6 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 appreciating a jurisdiction’s overall risk to its hazards of concern. Table 9.28-14 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.

Table 9.28-14. Recent and Expected Future Development

Type of Development	2017		2018		2019		2020		2021		2022	
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	10	0	13	0	4	0	7	0	5	0	Final statistics for 2022 were not available for this HMP update.	
Multi-Family	0	0	10	0	9	0	8	0	4	0		
Other (commercial, mixed-use, etc.)	3	0	1	0	3	0	2	0	5	0		
Total New Construction Permits Issued	13	0	24	0	2	0	17	0	14	0		
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development				
Recent Major Development and Infrastructure from 2017 to Present												
Villas at Brandon Woods -Section 2	Commercial	99 Units		Wood Trace		None		Construction in progress				
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												



Type of Development	2017	2018	2019	2020	2021	2022
Stonebriar Glen South	Residential	150	Fourth Section Road - 083.04-1-1.21 and 083.04-1-5.111	None		Anticipated: No approval to date
Heritage Square Phase I Site Plan	Mixed Use	80 Units	Persistence Path - 068.03-1-18.113	None		Anticipated: No approval to date

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.28.7 Jurisdictional Risk Assessment

The hazard profiles in Volume 1, Section 5 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Section 5.2 (Methodology and Tools) and Section 5.4 (Hazard Ranking) provide detailed summaries for the Town of Sweden’s risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided below illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the Town of Sweden has significant exposure. The maps also show the location of potential new development, where available.

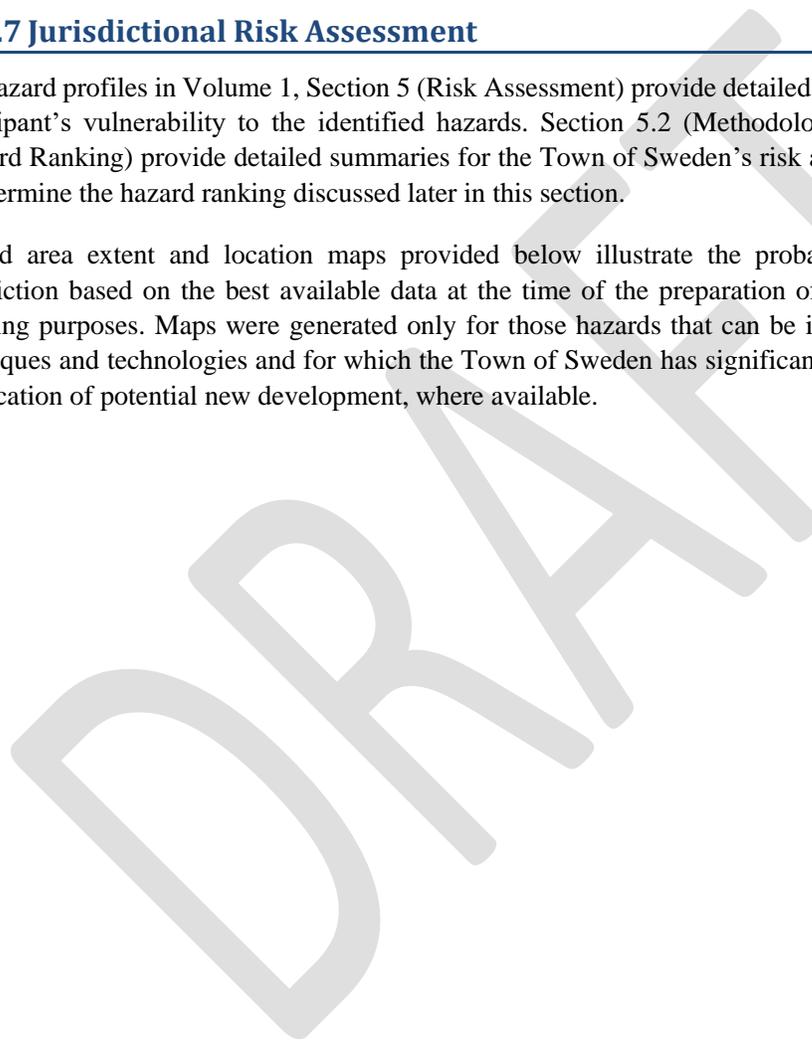




Figure 9.28-1. Town of Sweden Hazard Area Extent and Location Map 1

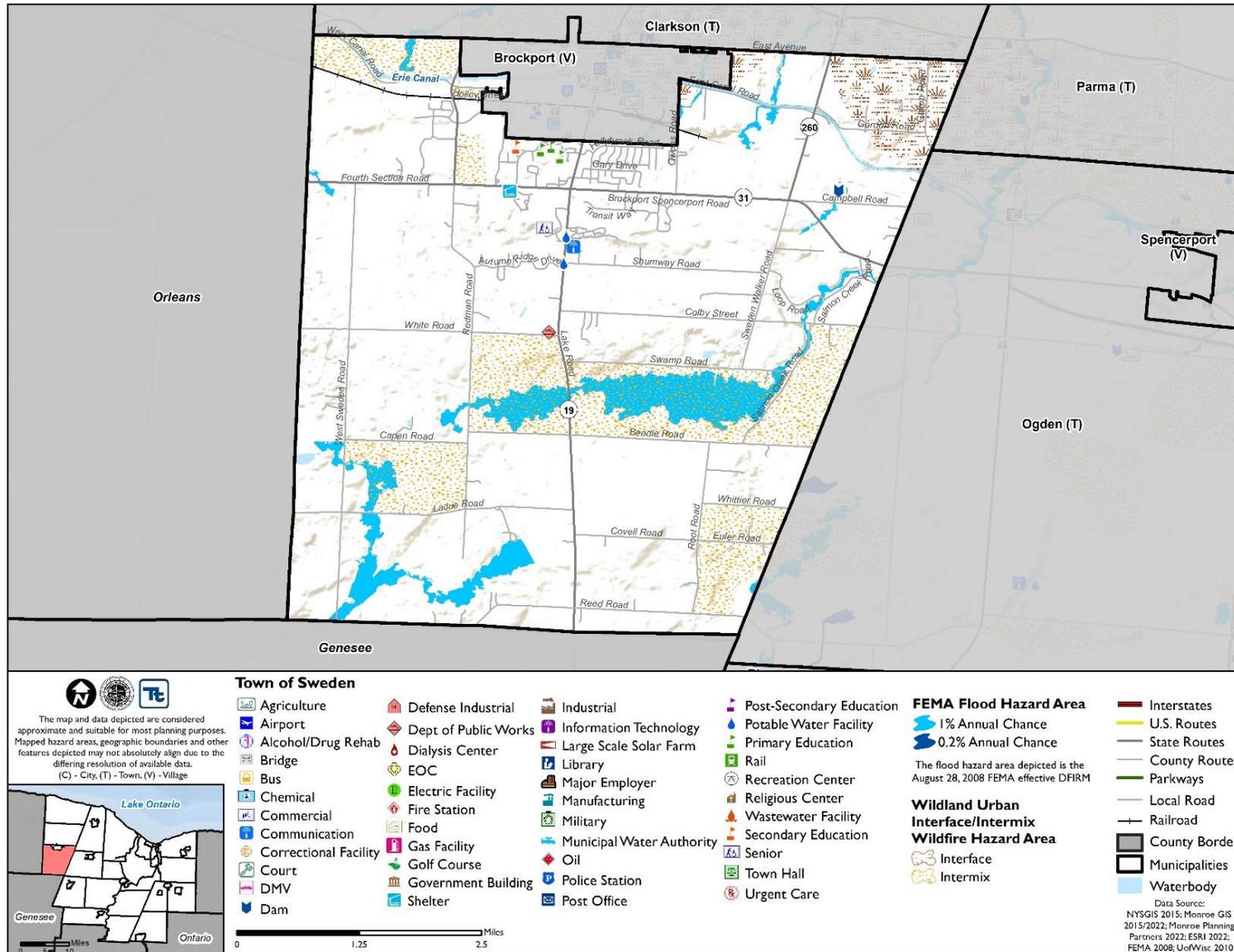
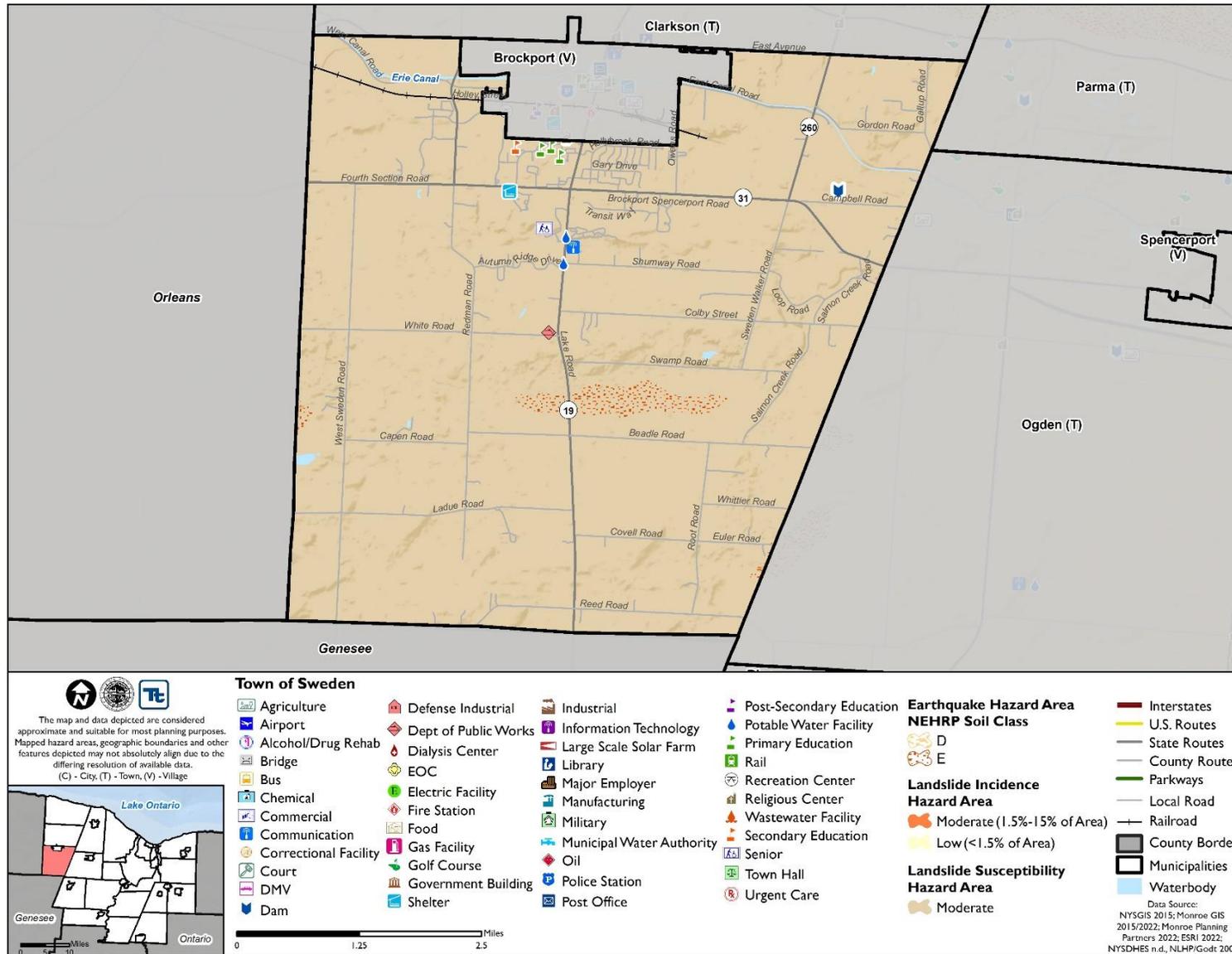




Figure 9.28-2. Town of Sweden Hazard Area Extent and Location Map 2





Hazard Event History

Monroe County has a history of natural and non-natural hazard events, as detailed in Volume I, Section 5 (Risk Assessment). 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 Town of Sweden’s history of federally-declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. Table 9.28-15 provides details regarding municipal-specific loss and damages the Town experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources.

Table 9.28-15. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 8, 2017	High Wind	No	Unusually deep low pressure moved from northwest Ontario across Hudson Bay. The low brought strong winds to the entire region with sustained winds up to 49 mph and wind gusts as high as 81 mph. A significant amount of damage resulted with 100,000 without power in Monroe County alone.	Although the County was impacted, the Town did not report any significant damages.
May 2- August 6, 2017	Flooding (DR-4348)	Yes	During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall.	Although the County was impacted, the Town did not report any significant damages.
May-June 2019	Lakeshore Flood	No	Excessive runoff into the Ottawa River Basin in Canada restricted the outlet of Lake Ontario. This combined with above normal precipitation into the Lake Ontario Basin, record levels on the Great Lakes above Lake Ontario, and higher than normal flows into the lake from the Niagara River pushed the lake to well above normal levels.	Although the County was impacted, the Town did not report any significant damages.
October 31, 2019	High Wind and Flooding	No	A deepening area of consolidated low pressure tracked across the region. This system brought record breaking Halloween rains, damaging wind gusts, and a small Lake Ontario seiche	Although the County was impacted, the Town did not report any significant damages.
January 20, 2020 – Present	Covid-19 Pandemic (EM-3434) (DR-4480)	Yes	Between March 1, 2020 and July 20, 2022, Monroe County reported 171,851 confirmed cases of COVID-19, and 1,660 total fatalities.	The Town experienced closures and masking/social distancing requirements.

Notes:

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





Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1, Section 5 (Risk Assessment) have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Town of Sweden’s risk assessment results and data used to determine the hazard ranking.

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 Volume 1, Section 5 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.

As discussed in Volume 1, Section 5.3 (Hazard Ranking), each participating jurisdiction has differing degrees of risk exposure and vulnerability compared with the 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 natural hazards for the Town of Sweden. The Town of Sweden reviewed the County hazard risk/vulnerability risk ranking table and 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 Town indicated the following:

- The Town agreed with the calculated hazard rankings.

Table 9.28-16. Hazard Ranking Input

Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood	Hazardous Materials
Low	Medium	Low	Medium	Low	Low
Infestation and Invasive Species	Landslide	Severe Storm	Severe Winter Storm	Wildfire	
Low	Low	High	High	Low	

Note: The scale is based on the hazard rankings established in Volume 1, Section 5.3 (Hazard Ranking) and modified as appropriate during review by the jurisdiction

Critical Facilities

NYSDEC 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 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, New York 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 0.2-percent annual chance 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 in the community located in the 1-percent and 0.2-percent floodplain and presents Hazus-MH estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.



Table 9.28-17. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Andrew Sodoma Dam	Dam	X	X	2023-Town of Sweden-003	-

Source: FEMA 2008; Monroe County GIS 2022

Identified Issues

After review of the Town of Sweden’s hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the Town of Sweden identified the following vulnerabilities within their community:

- While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.
- The Andrew Sodoma Dam is a critical facility located in the 1% floodplain. Critical facilities must be protected to the 0.2 percent flood level.
- The Town of Sweden and Town of Clarkson share a combined Sweden Clarkson Recreation program. The Sweden-Clarkson Recreation Center is located in the Town of Sweden at 4927 Lake Rd S. The facility could be used as an emergency shelter, but it lacks backup power.
- The Covid-19 pandemic has demonstrated the level of impact that disease outbreak events can present. Supplies must be available to address disease outbreak.
- The Town can be impacted by hazards that are not as frequent or do not have the same severity of impact. Residents are not always aware of the risks these hazards present.
- While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.
- Flooding starts south on Owens Road. The flooding is caused by a culvert problem where the water runs from Route 31/Owens down to Canal Road. This is a shared responsibility of the Village and the Town of Sweden.

9.28.8 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2017 HMP. Actions that are in progress are carried forward and combined with new actions as part of this plan update and are included in the tables with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such and previously presented in the ‘Capability Assessment’ earlier in this annex.



Table 9.28-18. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		<ol style="list-style-type: none"> Next Steps Project to be included in 2023 HMP or Discontinue If including action in the 2023 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
						Cost	Level of Protection	
TSW-1	Conduct education and outreach to residents and business owners to inform them if their properties are in known hazard areas, and actions they can take to protect their properties.	Earthquake, Extreme Temperatures, Flood, Infestation, Landslide, Severe Storms, Severe Winter Storms, Wildfire, HazMat, Utility Failure		Town Clerk	In Progress			<ol style="list-style-type: none"> Include in 2023 HMP Expand to include lesser-known hazards
TSW-2	Identify funding streams, acquire land on East Canal Road, and install a retention pond as a corrective action to mitigate flooding in this area.	Flood, Severe Storm	East Canal Road Flooding during severe storm due to debris	Town of Sweden	Complete		Canal Authority put in a debris screen and the Town monitors stream for debris removal before heavy storms.	<ol style="list-style-type: none"> Discontinue Complete



Additional Mitigation Efforts

In addition to the mitigation initiatives completed in Table 9.28-18, the Town of Sweden identified the following mitigation efforts completed since the last HMP:

- None identified

Proposed Hazard Mitigation Initiatives for the HMP Update

The Town of Sweden participated in a mitigation action workshop in October 2022 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).

The table below indicates the range of proposed mitigation action categories. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide-range of activities and mitigation measures selected.

Table 9.28-19. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	X	-	-	X	X	X	X	-	-	X
Drought	X	-	-	X	X	X	X	-	-	-
Earthquake	X	-	-	X	X	X	X	-	-	-
Extreme Temperature	X	X	-	X	X	X	X	-	-	X
Flood	X	X	-	X	X	X	X	-	X	-
Hazardous Materials	X	-	-	X	X	X	X	-	-	-
Infestation and Invasive Species	X	-	-	X	X	X	X	-	-	-
Landslide	X	-	-	X	X	X	X	-	-	-
Severe Storm	X	X	-	X	X	X	X	-	X	X
Severe Winter Storm	X	X	-	X	X	X	X	-	-	X
Wildfire	X	-	-	X	X	X	X	-	-	-

Note: Mitigation categories are described below the Mitigation Initiatives Table (Table 9.28-20).

The table below summarizes the specific mitigation initiatives the Town of Sweden would like to pursue in the future to reduce the effects of hazards. The 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.



Table 9.28-20. 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
2023-Town of Sweden-001	Substantial Damage Procedures	1, 2, 3	All Hazards	<p>Problem: While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.</p> <p>Solution: The municipality will develop official procedures for Substantial Damage and Substantial Improvement determinations.</p>	No	None	Within 5 years	FPA	Staff time	Meet NFIP requirements, improved floodplain administration	Municipal budget	High	LPR	PP, PR
2023-Town of Sweden-002	Sweden-Clarkson Recreation Center	1, 3	Extreme Temperature, Severe Storm, Severe Winter Storm	<p>Problem: The Town of Sweden and Town of Clarkson share a combined Sweden Clarkson Recreation program. The Sweden-</p>	Yes	None	Within 5 years	Town of Sweden, Town of Clarkson, Sweden Clarkson Recreation program, Sweden Public Works	High	Protect public health and safety, and ensure continued operation of critical facility and essential functions	FEMA HMGP and BRIC, PDM, USDA Community Facilities Grant Program, Emergency Management Performance	High	SIP	ES





Table 9.28-20. 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
				<p>Clarkson Recreation Center is located in the Town of Sweden at 4927 Lake Rd S. The facility could be used as an emergency shelter, but it lacks backup power.</p> <p>Solution: An engineer will evaluate the Recreation Center to determine the proper size generator necessary to power the Recreation Center. The Town of Sweden's Public Works will oversee installation of a fixed generator and necessary electrical components to supply backup power to the Recreation Center. The</p>						during power outages.	Grants (EMPG) Program, Municipal Budgets			



Table 9.28-20. 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
				Town of Sweden's Public Works will be responsible for maintenance and testing of the generator following installation.										
2023-Town of Sweden-003	Andrew Sodoma Dam	3	Flood	<p>Problem: The Andrew Sodoma Dam is a critical facility located in the 1% floodplain. Critical facilities must be protected to the 0.2% flood level.</p> <p>Solution: The Town Engineer will evaluate the dam to determine level of protection. If the dam does not meet specifications to the 0.2% flood level, a feasibility assessment will be conducted to determine potential measures to</p>	Yes	None	Within 5 years	Engineer, DPW	TBD by feasibility assessment	Protect Andrew Sodoma Dam from failure	FEMA HMGP and PDM, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget	High	SIP	SP



Table 9.28-20. 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
				protect the structure. Cost-effective measures will be implemented by DPW.										
2023-Town of Sweden-004	Disease Outbreak Supplies	1, 4	Disease Outbreak	<p>Problem: The Covid-19 pandemic has demonstrated the level of impact that disease outbreak events can present. Supplies must be available to address disease outbreak.</p> <p>Solution: The Town will stockpile necessary supplies to address disease outbreak events such as PPE.</p>	No	None	2 years	OEM	Medium for facility, Low expected cost for supplies	Increased capability to respond to disease outbreak events	Town budget, BRIC	High	LPR	PR, ES
2023-Town of Sweden-005	Hazard Outreach	1, 4	All Hazards	<p>Problem: The Town can be impacted by hazards that are not as frequent or do not have the same severity of impact. Residents are not always</p>	No	None	1 year	Administration	Staff time	Increased public awareness	Town budget	High	EAP	PI



Table 9.28-20. 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
				<p>aware of the risks these hazards present.</p> <p>Solution: The Town will conduct education and outreach to residents and business owners to inform them if their properties are in known hazard areas, and actions they can take to protect their properties.</p>										
2023-Town of Sweden-006	Substantial Damage Procedures	1, 2, 3	All Hazards	<p>Problem: While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.</p>	No	None	Within 5 years	FPA	Staff time	Meet NFIP requirements, improved floodplain administration	Municipal budget	High	LPR	PP, PR



Table 9.28-20. 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
				Solution: The municipality will develop official procedures for Substantial Damage and Substantial Improvement determinations.										
2023-Town of Sweden-007	Owens Road and Canal Road Flooding	1, 3	Flood, Severe Storm	<p>Problem: Flooding starts south on Owens Road. The flooding is caused by a culvert problem where the water runs from Route 31/Owens down to Canal Road. This is a shared responsibility of the Village and the Town of Sweden.</p> <p>Solution: The Town and Village will complete an engineering survey of the culvert to determine the proper size necessary to provide the</p>	No	None	Within 5 years	Engineer, DPW, Village of Brockport	High	Reduction in flooding, flood damages to stormwater systems and roadways	HMGP, BRIC, PDM, CHIPS, Village budget, Town budget	High	SIP	SP



Table 9.28-20. 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
				necessary stormwater capacity to prevent flooding and any other necessary upgrades. The Village and Town DPWs will complete the necessary upsizing/repairs for those components noted to be undersized or in need of retrofit.										

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
- BRIC Building Resilient Infrastructure and Communities 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.

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The prioritization criteria provided in Volume 1, Section 6 (Mitigation Strategy) identify 14 evaluation/prioritization criteria to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as ‘High’, ‘Medium’, or ‘Low.’ The table below provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

Table 9.28-21. 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
2023-Town of Sweden-001	Substantial Damage Procedures	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2023-Town of Sweden-002	Sweden- Clarkson Recreation Center	1	1	1	1	1	1	0	1	1	1	1	0	1	1	12	High
2023-Town of Sweden-003	Andrew Sodoma Dam	1	1	1	1	1	0	0	1	1	1	0	0	1	1	10	High
2023-Town of Sweden-004	Disease Outbreak Supplies	1	0	1	1	1	1	0	1	1	1	0	1	1	1	11	High
2023-Town of Sweden-005	Hazard Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2023-Town of Sweden-006	Substantial Damage Procedures	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High
2023-Town of Sweden-007	Owens Road and Canal Road Flooding	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).



9.28.9 Action Worksheets

The following action worksheets were developed by the Town of Sweden to aid in the submittal of grant applications to support the funding of high priority proposed actions.

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Action Worksheet			
Project Name:	Sweden- Clarkson Recreation Center		
Project Number:	2023-Town of Sweden-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Extreme Temperature, Severe Storm, Severe Winter Storm		
Description of the Problem:	The Town of Sweden and Town of Clarkson share a combined Sweden Clarkson Recreation program. The Sweden-Clarkson Recreation Center is located in the Town of Sweden at 4927 Lake Rd S. The facility could be used as an emergency shelter, but it lacks backup power.		
Action or Project Intended for Implementation			
Description of the Solution:	An engineer will evaluate the Recreation Center to determine the proper size generator necessary to power the Recreation Center. The Town of Sweden's Public Works will oversee installation of a fixed generator and necessary electrical components to supply backup power to the Recreation Center. The Town of Sweden's Public Works will be responsible for maintenance and testing of the generator following installation.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	N/A	Estimated Benefits (losses avoided):	Protect public health and safety, and ensure continued operation of critical facility and essential functions during power outages.
Useful Life:	20 years	Goals Met:	1, 3
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and BRIC, PDM, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budgets
Responsible Organization:	Engineer, Public Works	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Sweden- Clarkson Recreation Center	
Project Number:	2023-Town of Sweden-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of the Recreation Center and allow for sheltering
Property Protection	1	Project will protect building from power loss.
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Towns have the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Extreme Temperature, Severe Storm, Severe Winter Storm
Timeline	0	Within 5 years
Agency Champion	1	Town of Sweden, Town of Clarkson, Sweden Clarkson Recreation program, Sweden Public Works
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Andrew Sodoma Dam		
Project Number:	2023-Town of Sweden-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	The Andrew Sodoma Dam is a critical facility located in the 1% floodplain. Critical facilities must be protected to the 0.2% flood level.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Engineer will evaluate the dam to determine level of protection. If the dam does not meet specifications to the 0.2% flood level, a feasibility assessment will be conducted to determine potential measures to protect the structure. Cost-effective measures will be implemented by DPW.		
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 checked="" type="checkbox"/>	No <input 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:	500-year flood level	Estimated Benefits (losses avoided):	Protect Andrew Sodoma Dam from failure
Useful Life:	TBD by feasibility assessment	Goals Met:	3
Estimated Cost:	TBD by feasibility assessment	Mitigation Action Type:	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA HMGP and PDM, BRIC, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Town Budget
Responsible Organization:	Engineer, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Remove dam	N/A	Not possible
	Install dam failure warning system	N/A	May be more costly and would require round the clock observations
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Andrew Sodoma Dam	
Project Number:	2023-Town of Sweden-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Andrew Sodoma Dam.
Property Protection	1	Project will protect dam from failure and property downstream from potential inundation.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	0	Improvements may require permitting.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer, DPW
Other Community Objectives	1	Protection of dams from dam failure
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Owens Road and Canal Road Flooding		
Project Number:	2023-Town of Sweden-007		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Flooding starts south on Owens Road. The flooding is caused by a culvert problem where the water runs from Route 31/Owens down to Canal Road. This is a shared responsibility of the Village of Brockport and the Town of Sweden.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town and Village will complete an engineering survey of the culvert to determine the proper size necessary to provide the necessary stormwater capacity to prevent flooding and any other necessary upgrades. The Village and Town DPWs will complete the necessary upsizing/repairs for those components noted to be undersized or in need of retrofit.		
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:	At least a 5-year event; will be determined once project is complete	Estimated Benefits (losses avoided):	Reduction in flooding, flood damages to stormwater systems and roadways
Useful Life:	30 years	Goals Met:	1, 3
Estimated Cost:	High	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:	1 year	Potential Funding Sources:	HMGP, BRIC, PDM, CHIPS, Village budget, Town budget
Responsible Organization:	Engineer, Village DPW, Town of Sweden	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	Current problem continues
	Remove road	\$20,000	Roadway cannot be removed
	Relocate road to another location	\$50,000	Not possible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Owens Road and Canal Road Flooding	
Project Number:	2023-Town of Sweden-007	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	Project will protect roadway from flooding, stormwater system damages
Cost-Effectiveness	1	
Technical	1	The project is technically feasible
Political	1	
Legal	1	The Village of Brockport and Town of Sweden will partner on the project
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer, Village DPW, Town of Sweden
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	