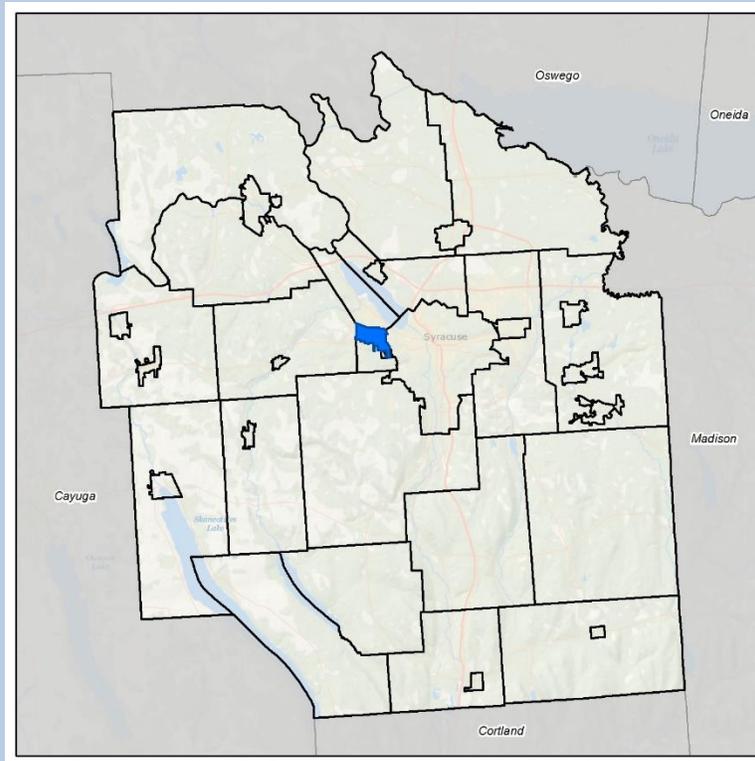




MUNICIPAL ANNEX | Village of Solvay



 <p>Total Population (2010 Census)</p> <p>6,584</p>	 <p>Total Number of Buildings</p> <p>3,003</p>	 <p>Number of National Flood Insurance Program (NFIP) Policies and Percent in Regulatory Floodplain</p> <p>4 (%)</p>	 <p>Total Agricultural Land (acres)</p> <p>6.4</p>
 <p>Total Land (square miles)</p> <p>1.6</p>	<p>Percent of Buildings in Regulatory Floodplain</p> <p><1%</p>	<p>Number of Repetitive Loss (RL) Properties</p> <p>0</p>	 <p>Harmful Algal Bloom Impacted Waterbody</p> <p>No</p>
 <p>Proposed Project Types</p>	<p>Local Plans and Regulations, Structure and Infrastructure Projects, and Natural Systems Protection</p>	 <p>Mitigation Focus</p>	<p>Flood Severe Storm Severe Winter Storm</p>



9.31 VILLAGE OF SOLVAY

This section presents the jurisdictional annex for the Village of Solvay. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the village participated in the planning process; an assessment of the Village of Solvay’s risk and vulnerability; the different capabilities utilized in the village; and an action plan that will be implemented to achieve a more resilient community.

9.31.1 Hazard Mitigation Planning Team

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

Primary Point of Contact	Alternate Point of Contact
Name: Richard A. Penhall Title: Superintendent of Public Works Phone Number: 315-214-1239 Address: 3143 Milton Ave., Solvay, NY 13209 Email: rpenhall@villageofsolvay.com	Name: Charles Callura Title: Code Enforcement Officer Phone Number: (315)-468-1679 Address: 1100 Woods Road, Solvay, NY 13209 Email: ccallura@villageofsolvay.com
Floodplain Administrator	
Name: Marcus Malley Title: Village Engineer Phone Number: (315)-455-2000 Address: 449 Col. Eileen Blvd, Syracuse, NY 13212 Email: mmalley@cscos.com	

9.31.2 Municipal Profile

The Village of Solvay is located in the Town of Geddes at the center of Onondaga County in western New York State. Refer to Section 9.14 (Town of Geddes) for their individual annex. The Village of Solvay has a total area of 1.6 square miles. The village is south of the east end of Onondaga Lake and is also south of Interstate 690. The Erie Canal passes through the village. The Village of Solvay is bordered to the north and the south by the Town of Geddes, to the east by the City of Syracuse, and to the west by the Town of Camillus. The estimated 2016 population was 6,365, a 3.3 percent decrease from the 2010 Census (6,584). The Village of Solvay is governed by a mayor and six trustees.

Data from the 2016 U.S. Census American Community Survey estimates that 6.2 percent of the town population is five years of age or younger, and 17 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

History and Cultural Resources

The Solvay area was within the former Central New York Military Tract, but Solvay was in a location reserved for members of the Onondaga tribe. The village was initially founded in 1794 by James Geddes and was initially called "Geddesville." The first residents were mostly Irish, subsequently joined by South Tyrolians and Poles. Eventually the community became known for its population largely Italian in extraction. It still retains a large segment (about 35-percent in 2005) of population of Italian descent. More recently many families of Ukrainian descent have settled in the village.



The Village of Solvay was renamed, after 1884, when the Solvay Process Company built a Solvay process plant to produce soda ash. The Village of Solvay was incorporated in 1895. Other major businesses of Solvay included Frazier & Jones, a foundry; Crucible Steel, producer of specialty steels; Iroquois Pottery (Solvay China); and Pass & Seymour, producing electrical wiring devices. The Solvay Process plant, by then owned by Allied Chemical and Dye Corporation, closed in 1985. The community has remained stable despite this loss.

Solvay has its own municipal electric company which provides service to the village at one of the least expensive rates in the nation. The Solvay Public Library was listed on the National Register of Historic Places in 2007.

Growth/Development Trends

Table 9.31-1 summarizes major residential/commercial development that as of 01/09/2019 and any known or anticipated major residential/commercial development and major infrastructure development that is likely to be occur within the municipality in the next five years. Refer to the map in Figure 9.31-1 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.31-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2013 to present					
Milton Avenue Streetscaping	Commercial	5	Milton Avenue	Carbonate Bedrock	Rehabilitation
Known or Anticipated Development in the Next Five (5) Years					
New Village Hall in Milton Ave (and with neighboring Police Station)	Municipal	2 buildings	Near the intersection of Milton Ave and Caroline Ave	Sewer flooding and nearby chemical storage (Allied Processing)	Proposed project for a two-building complex that includes Village Hall and Police Station

** Only location-specific hazard zones or vulnerabilities identified.*

9.31.3 Hazard Event History Specific to the Village of Solvay

Onondaga County has a history of natural events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Village of Solvay’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Onondaga County. Table 9.31-2 provides details regarding municipal-specific loss and damages the village experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



Table 9.31-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Onondaga County Designated?	Summary of Event	Municipal Summary of Damages and Losses
April – May 2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds (FEMA-DR-1993)	Yes	<p>A slow moving warm front pushed northward across central New York late in the afternoon on April 25th. Severe weather developed, and in addition to reports of severe wind damage and hail, plenty of wind shear in the vicinity of the warm front allowed for a few super-cell thunderstorms and tornadoes to develop. In addition, areas of heavy rain caused significant flash flooding in several locations of central New York.</p> <p>On May 26, a deep upper level low pressure system shifted east from the mid-Mississippi Valley region through the afternoon and evening, allowing numerous showers and thunderstorms to develop. Many reports of large hail and damaging winds occurred in central New York.</p>	Montrose Avenue Flooding
June 30- July 1, 2015	Flash Flood	No	<p>An unseasonably strong storm system tapping into above normal moisture sources across the Great Lakes and Northeast triggered multiple heavy rain producing thunderstorms across the region. Localized torrential rainfall in central New York caused serious urban flash flooding in the Syracuse, NY metropolitan area. Damages are estimated between three and five million dollars.</p>	Montrose Avenue Flooding
July 1, 2017	Flash Flood	No	<p>A tropical moisture laden air mass produced numerous showers and thunderstorms which traveled repeatedly over the same areas of the Finger Lakes Region and Upper Mohawk Valley. Widespread flash and urban flooding developed in portions of Cayuga, Onondaga, Madison and Oneida counties. Hardest hit areas were the villages and towns of Moravia, Chittenango, Oneida, and Utica to name a few. Total rainfall amounts along a narrow corridor from Moravia to Utica generally ranged from 2.5 to 5 inches, most of which fell in less than 1 to 2 hours. Total damages from this event range from \$10-\$15 million dollars Countywide.</p>	Montrose Avenue Flooding

Notes:

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



The image above demonstrates stormwater flooding along Charles Street near Montrose Avenue (Image from Syracuse Post Standard, May 2012).

9.31.4 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazards of greatest concern and risk to the Village of Solvay. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk Ranking

This section includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating town or village may have differing degrees of risk exposure and vulnerability compared to Onondaga 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 Village of Solvay. The Village of Solvay has reviewed the County hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the village indicated the following:



- The village changed the hazard ranking for flood from medium to high.
- The village agreed with the remainder of the calculated hazard rankings.

Table 9.31-3. Village of Solvay Hazard Ranking Input

HAZARD	Drought	Earthquake	Flood*	Geologic	Harmful Algal Bloom	Invasive Species	Severe Storm	Severe Winter Storm
RELATIVE RISK FACTOR	Low	Low	High	Low	Low	Low	High	High

Notes: The scale is based on the following hazard rankings as established in Section 5.3.
 High = Total hazard priority risk ranking score of 5 and above
 Medium = Total hazard priority risk ranking of 3.9 – 4.9
 Low = Total hazard risk ranking below 3.8
 *The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Critical Facilities Flood Risk

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for state projects located in flood hazard areas. The law provides that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised two feet above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood even, or worst damage scenario. For those that do not meet this 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 Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.31-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		Addressed by Proposed Action
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	
None identified						

Source: FEMA 2016, SOCPA 2018

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- *Milton Avenue Flooding- While there have not been road closures, there is severe pooling that occurs from a day-long storm event. Over time it disappears, however it drains through marsh, dug out trenches, parking lots. This occurs in the area between NYS Fairgrounds and Milton Ave, east of Bridge Street and west of Horan Road*
- *Lack of underground storage for stormwater runoff – This leads to potential flooding in businesses and residences during 100-year storm events in the floodplain surrounding Montrose Avenue.*





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

- *Hiawatha Boulevard floods each time we have heavy rains.*
- *Westvale has a lot of large trees that are prone to downed limbs*
- *More education regarding most probable natural disasters*
- *Educate the county on the risks of natural disasters and invasive species and what we can be doing to protect our home*

9.31.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Solvay.

Table 9.31-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	In development	Local	Village Board	Joint Comprehensive Plan with the Town of Geddes
Capital Improvements Plan	In development	Local	Department of Public Works	Department of Public Works Capital Improvements Plan
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	No	-	-	-
Open Space Plan	No	State	NYSDEC	There are vacant brownfields (e.g. Pass and Seymour).
Stream Corridor Management Plan	Yes	State	NYSDEC/USFWS	2017 Onondaga Lake Natural Resource Damage Assessment Restoration Plan
Watershed Management or Protection Plan	Yes	State/Federal	NYSDEC/USFWS	2017 Onondaga Lake Natural Resource Damage Assessment Restoration Plan
Economic Development Plan	Yes	State	REDC	Central New York Rising 2015 Upstate Revitalization Initiative Plan
Comprehensive Emergency Management Plan	No	-	-	-



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Emergency Operation Plan	No	-	-	-
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	Yes	local	SMTC	Erie Canalway Trail Syracuse Connector Route Project
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State & Local	Village Codes Department	NYS building codes
Zoning Ordinance	Yes	Local	Village Board	Article II, Chapter 165 of Village Code; last updated L.L. No. 6-2012 7-24-2012
Subdivision Ordinance	Yes	Local	Village Board	Chapter 159 of Village Code; Added 12-18-2007 by L.L. No. 13-2007
NFIP Flood Damage Prevention Ordinance	No	-	-	-
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	No	State, Local	-	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Village Board	§165-31.1 Added 7-22-2003 by L.L. No. 4-2003
Stormwater Management Ordinance	Yes	Local	Village Codes Department	Chapter 134 and 165 of Village Code; Added 11-27-2007 by L.L. No. 11-2007
Municipal Separate Storm Sewer System (MS4)	Yes	County/Local	Village of Solvay and CNY Stormwater Coalition	SPEDES ID: NYR20A057
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS Department of State, Real Estate Agent	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

Administrative and Technical Capability

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





Table 9.31-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	Combined with Zoning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	Yes	Village of Solvay and Town of Geddes
Mutual aid agreements	Yes	DPW and Code Enforcement with Town of Geddes
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Village Engineer
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
NFIP Floodplain Administrator (FPA)	Yes	Village Engineer
Surveyor(s)		Village Engineer
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Village Engineer
Scientist familiar with natural hazards	Yes	Village Engineer
Warning systems/services	Yes	Village website links to a Text Alert System Neighborhood Watch; DEC Spill Response Hotline
Emergency Manager	Yes	DPW Superintendent
Grant writer(s)	Yes	Village Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Village Engineer
Professionals trained in conducting damage assessments	Yes	DPW Superintendent; Village Engineer

Fiscal Capability

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

Table 9.31-7. 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	No
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	

Community Classifications

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

Table 9.31-8. Community Classifications

Program	Do you have this? (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)	Yes	1 or 2	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Natural disaster/safety programs in/for schools	Yes	-	-
Organizations with mitigation focus (advocacy group, non-government)	Yes	Masons	-
Public education program/outreach (through website, social media)	Yes	MS4 outreach on the CNY Stormwater Coalition website	-
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community’s capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual





- The Building Code Effectiveness Grading Schedule (<https://www.isomitigation.com/bcegs/>)
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- New York State Climate Smart Communities (<http://www.dec.ny.gov/energy/56876.html>)
- The National Weather Service Storm Ready website at <https://www.weather.gov/stormready/communities>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of the Village of Solvay’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.31-9. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and regulatory capability			X
Administrative and technical capability			X
Fiscal capability			X
Community political capability		X	
Community resiliency capability			X
Capability to integrate mitigation into municipal processes and activities			X

National Flood Insurance Program

The Village of Solvay does not currently have a Flood damage Prevention Ordinance nor meets the minimum State and Federal regulatory standards. However, the village addresses flooding in the Stormwater Management Ordinance (Chapter 134 of the village code) through the regulation of stormwater runoff discharges from land development activities in order to minimize increases of stormwater runoff. Additionally, flooding is also addressed in the Subdivision Ordinance (Chapter 159 of the village code). The ordinance specifies that any land subject to flooding may not be subdivided for residential occupancy or any other use that would impact the safety to health, life, or properties.

NFIP Floodplain Administrator (FPA)

Marcus Malley, Village Engineer

National Flood Insurance Program (NFIP) Summary

The Village of Solvay does not maintain lists/inventories of properties that have been flood damaged and does not make substantial damage estimates. The FPA noted that no properties have recently been flooded and no properties are interested in mitigation at this time.

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



Table 9.31-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Village of Solvay	4	7	\$12,398	0	0	0

Source: FEMA Region 2 2018.

(1) Policies, claims, RL, and SRL statistics provided by FEMA Region 2, and are current as of June 30, 2018. Total number of RL properties does not include SRL properties. Number of claims represents claims closed by July 31, 2018.

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

(3) Number of policies inside and outside of flood zones is based on latitude and longitude coordinates 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 Onondaga County boundary, based on provided latitude and longitude coordinates.

RL Repetitive Loss
SRL Severe Repetitive Loss

Resources

The Village Engineer is the Floodplain Administrator (FPA) and the sole person responsible for floodplain administration. Code enforcement is involved with NFIP administration services and functions that include permit review, inspections, and record-keeping . The village does conduct outreach on flood hazards/risk and flood risk reduction as part of their MS4 requirements in coordination with the Stormwater Coalition website.

The FPA noted that the village does not have access to resources to determine possible future flooding conditions from climate change. The FPA does not feel adequately supported and trained to fulfill their responsibilities as the municipal floodplain administrator and noted that there are no present barriers to running an effective program. The FPA would consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators.

Compliance History

The Village of Solvay is in good-standing in the NFIP. According to data received by NYSDEC, a compliance audit has not been conducted for the municipality but the village will determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed. The village maintains compliance with and good-standing in the NFIP through the adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.

Regulatory

Stormwater Management Ordinance - The Stormwater Management Ordinance (Chapter 134 of the village code) was most recently adopted in 2007 to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within the Village of Solvay and to address the findings of fact identified herein. This chapter seeks to meet those purposes by achieving the following objectives:

- Meet the requirements of minimum control measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02, as amended or revised;
- Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities, GP-02-01, as amended or revised;





- Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels;
- Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality;
- Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and
- 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.

The FPA noted that there are other local ordinances, plans or programs that support floodplain management and meeting the NFIP requirements. The FPA stated that the village has not previously considered joining the Community Rating System (CRS) program but there would be community interest in attending a CRS seminar if it was offered locally.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures, which is also indicated below.

Planning

Existing Integration

Onondaga Hazard Mitigation Plan: The Village of Solvay continues to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0 and supports County-wide initiatives identified in Section 9.1 of the County Annex.

Currently, the village does not have any comprehensive plans available. The village is currently working with the Town of Geddes to create its first intermunicipal Comprehensive Plan to guide future policy and capital investments in the Lakeland – Solvay – Westvale communities. The draft vision of this plan includes a commitment to protect and preserve local environmental assets, support a vibrant economy, and to ensure the public health, safety, and welfare for all. The draft environmental policy calls for the preservation of open space areas of significant ecological value (wetlands, floodplains, steep slopes, watercourses, woodlots), minimization of local sources of pollution, reduction in greenhouse gas emissions, and an increase in resilience to climate change, among other policy items. The draft Public Health and Safety Policy calls for the continued support and funding for professional public safety agencies and the enhanced level of safety, comfort and effectiveness of transportation routes with respect to non-motorists.

Opportunities for Future Integration

Updates to existing plans and new plans could include discussion of natural hazard risk and refer to the Countywide Hazard Mitigation Plan.



Regulatory and Enforcement (Ordinances)

Existing Integration

The village has multiple ordinances pertaining to the mitigation of hazards. These ordinances include the Establishment of Boards (see Operational and Administration below), Fire Prevention, Illicit Connections, Activities and Discharges to Storm Sewer System Ordinance, Stormwater Management Ordinance, Zoning Ordinance, Subdivision of Land Ordinance. The village creates and supports innovative natural hazard management ideas for future site plan and development projects through zoning. The village also adheres to the New York State Fire Prevention and Building Code. The municipal Code and ordinances are available on the village website: <http://villageofsolvay.com/>

Zoning Ordinance - The Zoning Ordinance (Chapter 165 of the municipal code) was most recently updated in 1991. The ordinance was adopted to promote the public health, safety, comfort and convenience and the public interest and general welfare, with reasonable consideration, among other things, to the most desirable and appropriate use for which the land of each district, the character and suitability for particular use of a district, the conservation of property values and the direction of building development in accordance with a well-considered Comprehensive Plan.

Stormwater Prevention Ordinance - The Stormwater Management Ordinance (Chapter 134 of the municipal code) was most recently adopted in 2007. The ordinance specifies requirements for minimum stormwater management requirements and is designed to protect and safeguard the general health, safety, and welfare of the public residing within this jurisdiction.

Illicit Connections, Activities and Discharges to Storm Sewer System - The Illicit Connections, Activities and Discharges to Storm Sewer System ordinance (Chapter 105 of the municipal code) regulates non-stormwater discharges to the municipal separate storm sewer system (MS4) as required by federal regulations and New York State law.

Opportunities for Future Integration

The Planning Board and ZBA could also be provided with access to NYSDEC, FEMA, and the Army Corps of Engineers (USACE) for assistance in decision making.

Operational and Administration

Existing Integration

Planning/Zoning Board: The Village of Solvay has a combined Planning and Zoning Board made up of six trustees, representing each of the village's three wards. The Board meets at the Village Hall when needed.

Hazard Prone Structures: Where appropriate, the Village of Solvay supports retrofitting or acquisition of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Where retrofitting or acquisition is determined to be a viable option, the village considers implementation of that action based on available funding.

Mutual aid agreements: The Village of Solvay works to create, enhance, and maintain mutual aid agreements with neighboring communities.

Stream Clearing: The Village of Solvay supports stream clearing programs offered by the Onondaga County SWCD to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.



The Village of Solvay has a contract planning firm that is available for advisement on a case by case basis. Stormwater Management Functions are performed by the Director of Municipal Operations. NFIP Floodplain Management Functions are performed by the Village Engineer. The village contracts with firms that have experience in developing Benefit-Cost Analysis. The village staff in the Codes Department that can perform Substantial Damage Estimates. The village contracts with firms that have experience in preparing grant applications for mitigation projects. The village does not have staff with job descriptions that specifically include identifying or implement mitigation projects/actions or other efforts to reduce natural hazard risk. Staff currently do not receive training or continuing professional education which supports natural hazard risk, however the Codes Department and Highway Department participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. The Village DPW performs routine cleaning of storm sewers throughout village.

Opportunities for Future Integration

The Planning Board and the Zoning Board of Appeals could be more proactive rather than reactive to applications. Staff could receive additional training regarding natural hazard risk.

Funding

Existing Integration

The Village of Solvay municipal budget does not include line items for mitigation projects/activities, nor does it have a Capital Improvements Budget. The village has not pursued grant funds for mitigation-related projects in the past and does not have any other mechanism to fiscally support hazard mitigation. The village is in the process of developing a Capital Improvement Plan.

Opportunities for Future Integration

The village could supplement allocated municipal funding for mitigation projects by applying for grant funding.

Education and Outreach

Existing Integration

The Village of Solvay operates a municipal website (<http://villageofsolvay.com/>) that includes community news and information. The village website posts information regarding upcoming community events and important municipal decisions. The website provides information related to safety and hazard mitigation including local emergency response contact information, current project information, and links to the Hazard Mitigation Plan and related ordinances (see Regulatory and Enforcement). The village also offers a Text Alert System to notify residents of scheduled village power outages, village Offices Closures, and other important news and events.

Opportunities for Future Integration

The village could expand the information available on the municipal website to include additional hazards. The village could develop education/outreach programs, included village informational mailings.

Sheltering, Evacuation, and Temporary Housing

Temporary housing, evacuation routes, and sheltering measures 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.



Temporary and Permanent Housing

The village has identified the Village Fire Department located at 1925 Milton Ave, as the site for the placement of temporary housing for residents displaced by a disaster. The Fire Department is compliant with the NYS Uniform Fire Prevention and Building Code for a maximum occupancy of 50 individuals.

At this time, there are no known areas available for permanent housing relocation. The village has not identified potential sites suitable for relocating houses out of the floodplain and/or building new homes once properties in the floodplain are acquired. To accommodate longer term housing needs of permanently displaced residents, there is an existing supply of vacant housing units within the county which may be able to satisfy and absorb those housing needs. The county also has ample buildable land availability throughout its communities to satisfy construction of new housing units if needed, as mapped in Section 4, figure 4-20 in Volume I of this plan. Of note, given the nature of the hazards of concern to Onondaga County, the extent of housing need is also not likely to exceed currently available housing stock for all but the most extreme and widespread hazard events.

Evacuation and Sheltering Needs

The Village of Solvay has designated the following emergency shelter available:

- Village Fire Department, 1925 Milton Avenue. The Village Fire Department has a capacity for 50 individuals, is ADA compliant, has back up power, accommodates pets, and provides EMT medical services if needed. The Village of Solvay Fire Department is located in the center of the village on Milton Avenue. Village residents are aware of the location.

Per the County Emergency Management Plan, in the event of a hazard occurrence, the Department of Emergency Management is tasked with coordinating evacuation procedures with the Sheriff's Department, the On-Scene Commander, the Transportation Coordinator, the ARC, hospitals, special facilities, the fire service and the Health Department. The Sheriff's Department is responsible for implementing traffic control procedures including coordination of vehicular traffic and protection of resources, facilities and services in the affected areas. As noted in Section 4, Figure 4-19 in Volume I of this plan, the primary roads and highways are the evacuation routes for Onondaga County; the county is fortunate to have a variety of well-connected arterial and collector roadways to provide a variety of routing options during times of large-scale evacuation.

The American Red Cross (ARC) has primary contractual responsibility to provide sheltering, including short term housing, for Onondaga County individuals and families during an emergency occurring in Onondaga County. Services of the ARC include emergency sheltering needs, mass care, feeding, information and referral, and special population assistance. A confidential shelters list is maintained by the Department of Emergency Management and the ARC which identifies capacity for 15,000+ residents across Onondaga County. The ARC is responsible for maintaining shelter and temporary housing agreements with selected facilities.

9.31.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2013 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.31-11. 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)		Next Steps 1. Project to be included in 2019 HMP or Discontinue 2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
VSO-1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost-effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.	Storm flooding		Village	Ongoing Capability			1. Discontinue 2. 3. Ongoing capability
VSO-1b	Where appropriate, support purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost-effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.	Storm flooding		Village	Ongoing Capability			1. Discontinue 2. 3. Ongoing capability



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)	Next Steps
VSO-2	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: <ul style="list-style-type: none"> • Provide and maintain links to the Onondaga County HMP website, and regularly post notices on the municipal homepage referencing the Onondaga County HMP webpages. • Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. • Use the village email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. • Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. Municipal outreach activities to be supported by the county, as identified at county initiative OC-0.						
	See above				Ongoing capability	Cost Level of Protection Damages Avoided; Evidence of Success	1. Discontinue 2. 3. Ongoing capability
VSO-3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Storm flooding		Village	Ongoing Capability	Cost: Low Level of Protection: High Damages Avoided; Evidence of Success	1. Discontinue 2. 3. Ongoing capability
VSO-4	Maintain compliance with and good-standing in the NFIP including adoption	Storm flooding		Village	Ongoing Capability	Cost Level of Protection	1. Discontinue 2.



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)		Next Steps
	and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives VMN-1a, 1b, 2, and 9 through 11.					Damages Avoided; Evidence of Success		3. Ongoing capability
VSO-5	Continue to develop, enhance, and implement existing emergency plans.	Storm flooding		Village	Ongoing Capability	Cost	Low-Medium	1. Discontinue 2. 3. Ongoing capability
						Level of Protection	Moderate	
						Damages Avoided; Evidence of Success		
VSO-6	Create/enhance/ maintain mutual aid agreements with neighboring communities.	Storm flooding, invasive species		Village	Ongoing Capability	Cost	Low-Medium	1. Discontinue 2. 3. Ongoing capability
						Level of Protection	Moderate	
						Damages Avoided; Evidence of Success		
VSO-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	Storm flooding, invasive species		Village	Ongoing Capability	Cost	Low-Medium	1. Discontinue 2.
						Level of Protection	Moderate	





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)		Next Steps
						Damages Avoided; Evidence of Success		3. Ongoing capability
VSO-8	Support/Participate in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.	Storm flooding,		Village	Ongoing Capability	Cost	Moderate	1. Discontinue
						Level of Protection	Moderate	2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
VSO-9	Create and support innovative natural hazard risk management ideas for future site plan and development projects through zoning	Storm flooding, invasive species		Village	Ongoing Capability	Cost	Low	1. Discontinue
						Level of Protection	Moderate	2.
						Damages Avoided; Evidence of Success		3. Ongoing capability



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Solvay has performed ongoing maintenance projects to reduce the impact of flooding but has not identified specific mitigation projects/activities that have been completed but were not identified in the previous mitigation strategy in the 2013 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Solvay participated in a mitigation action workshop on January 14, 2019 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.31-12 summarizes the comprehensive-range of specific mitigation initiatives the Village of Solvay would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used 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 your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.31-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.31-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
V. Solvay-1	Milton Drainage Improvements	1,3,4,5,6	Severe Storm, Flood	<p>Problem: While there have not been road closures, there is severe pooling that occurs from a day-long storm event. Over time it disappears, however it drains through marsh, dug out trenches, parking lots. Occurs generally in the area between NYS Fairgrounds, Milton Ave, east of Bridge Street, west of Horan Road</p> <p>Solution: Map existing underground piping and culverts. From that, design and implement improved flow at points of constriction. Also examine possibilities for green infrastructure and innovative grey infrastructure (e.g. corrugated piping)</p>	No	Yes	5 years	Village of Solvay Highway Department	\$2M-\$8M	\$20M: power station located here along with residential and commercial development	Federal, State, County and local matching funds	High	LPR, SIP, NSP	PP, PR, NR, ES
V. Solvay-2	Montrose Avenue Drainage Project	1,3,4,5,6	Severe Storm, Flood	<p>Problem: See action worksheet below</p> <p>Solution: The Village of Solvay has made some drainage adjustments and improvements; however, additional stormwater storage capacity is necessary. The village is currently considering two locations to install the additional underground storage. The first location is West Genesee Street and the second is at Charles Park. Both sites have the capability of being connected to the existing storm drainage system. A benefit cost analysis needs to be conducted to</p>	No	No	5 years	Village of Solvay Highway Department	\$1M-\$8M	\$20M: Village garage located here along with residential and commercial development	FEMA and local matching funds	High	LPR, SIP, NSP	PP, PR, NR, ES



Table 9.31-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				determine the ideal location for this project. Once the location is selected, the village will begin work in improving the stormwater drainage system in the village.										

Notes:

Not all acronyms and abbreviations defined below are included in the table.

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

- CAV Community Assistance Visit
- CRS Community Rating System
- DPW Department of Public Works
- FEMA Federal Emergency Management Agency
- FPA Floodplain Administrator
- HMA Hazard Mitigation Assistance
- N/A Not applicable
- NFIP National Flood Insurance Program
- OEM Office of Emergency Management

Potential FEMA HMA Funding Sources:

- FMA Flood Mitigation Assistance Grant Program
- HMGP Hazard Mitigation Grant Program
- PDM Pre-Disaster Mitigation Grant Program

Timeline:

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

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

Critical Facility:

Yes Critical Facility located in 1% floodplain

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Table 9.31-13. 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	Total	High / Medium / Low
V. Solvay-1	Milton Avenue Drainage Improvements	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
V. Solvay-2	Montrose Avenue Drainage Project	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High

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

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9.31.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.31.8 Staff and Local Stakeholder Involvement in Annex Development

The Village of Solvay followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many village departments, including: Department of Public Works, Code Enforcement Officer, and Village Engineer. The Superintendent of Public Works represented the community on the Onondaga County Hazard Mitigation Plan Planning Partnership, Steering Committee, 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.

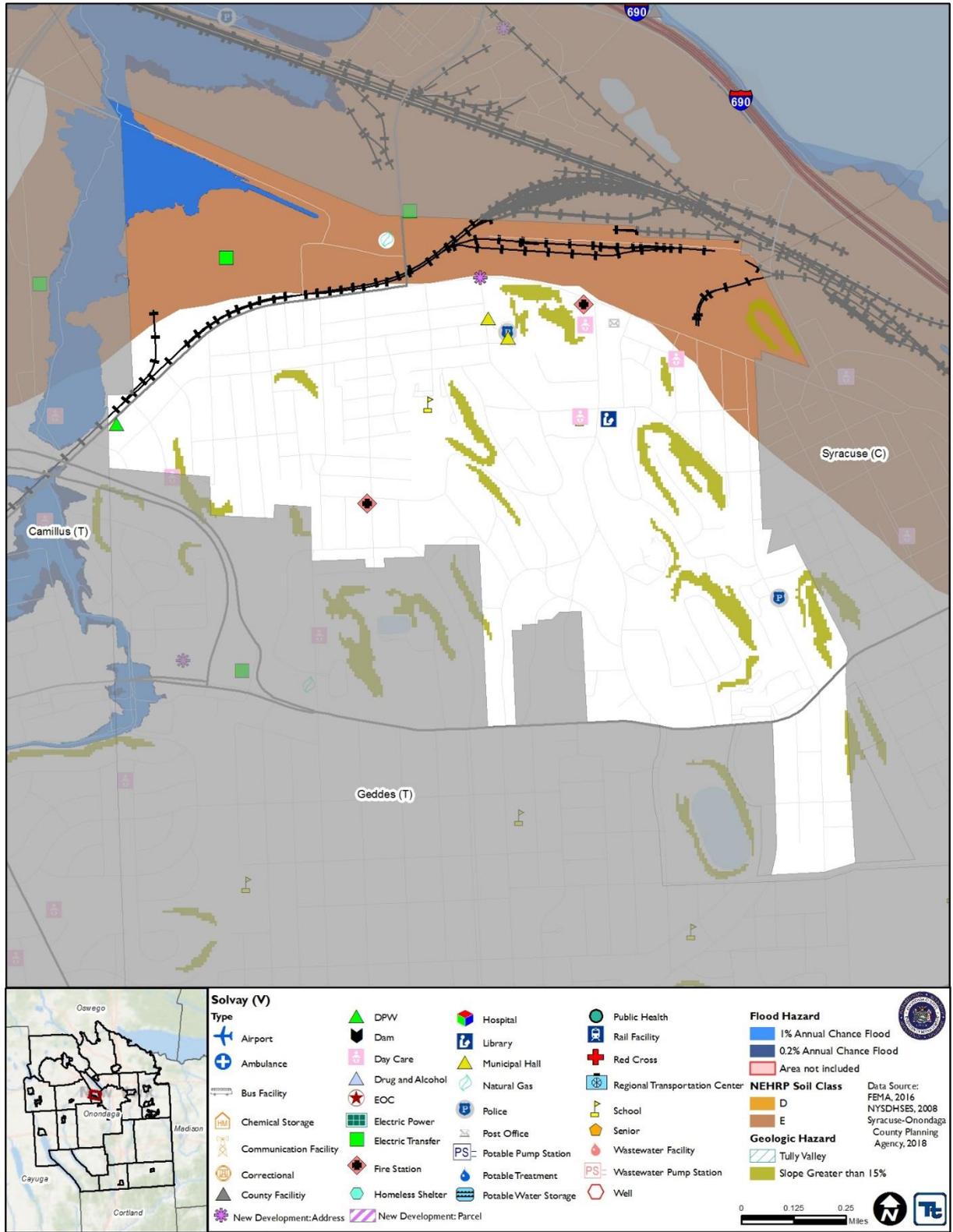
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

9.31.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Solvay that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Solvay has significant exposure. A map of the Village of Solvay hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain as well as identified critical facilities within the municipality.



Figure 9.31-1. Village of Solvay Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Milton Avenue Drainage Improvements		
Project Number:	V. Solvay-1		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storms		
Description of the Problem:	While there have not been road closures, there is severe pooling that occurs from a day-long storm event. Over time it disappears, however it drains through marsh, dug out trenches, parking lots. Occurs generally in the area between NYS Fairgrounds, Milton Ave, east of Bridge Street, west of Horan Road.		
Action or Project Intended for Implementation			
Description of the Solution:	Map existing underground piping and culverts. From that, design and implement improved flow at points of constriction. Also examine possibilities for green infrastructure and innovative grey infrastructure (e.g. corrugated piping).		
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:	Not in 1% or 0.2% floodplain	Estimated Benefits (losses avoided):	\$20M: power station located here along with residential and commercial development
Useful Life:	50 years	Goals Met:	1,3,4,5,6
Estimated Cost:	\$2M-8M	Mitigation Action Type:	Local Plans and Regulations, Structure and Infrastructure Project, Natural Systems Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	Federal, State, County and local matching funds
Responsible Organization:	Village of Solvay Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Plan, Comprehensive Plan
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Continued flooding for private property and risk to electrical facilities
	Milton Avenue Drainage Improvements	\$2M-\$8M	Most Cost Effective
	Relocation	Multi-million	Not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Milton Avenue Drainage Improvements	
Project Number:	V. Solvay-1	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	Project will protect properties from flooding
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The village has the legal authority to complete the project
Fiscal	0	The project requires grant funding.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	
Agency Champion	1	Village Highway Department
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Montrose Avenue Drainage Project		
Project Number:	V. Solvay-2		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flooding		
Description of the Problem:	The village is experiencing ongoing drainage problem that causes flooding at the intersection of Montrose Avenue, Charles Avenue, and West Genesee Street. This area in the village is the lowest elevation in the surrounding area. Montrose Avenue receives stormwater from the City of Syracuse, the Town of Geddes, and West Genesee Street. Stormwater from the City of Syracuse flows west from Avery Avenue down West Genesee Street to this intersection. Stormwater from the Town of Geddes flows east from Fay Road to the intersection. Stormwater from the Village of Solvay (Orchard Road, Pine Hill Road, Draper Road, and Fay Road) also contributes to this flooding. Other areas in the village, including Westcott Reservoir and areas east of Montrose Avenue also contribute stormwater to this intersection. The existing NYSDOT drainage system does not have the capacity to accommodate the stormwater during periods of heavy rain. Water damage from the flooding is not the only issues. The village experiences sanitary sewer backups into homes and businesses. The flooding at this intersection has become a financial burden to the village, its residents, and its businesses in this area.		
Action or Project Intended for Implementation			
Description of the Solution:	The Village of Solvay has made some drainage adjustments and improvements; however, additional stormwater storage capacity is necessary. The village is currently considering two locations to install the additional underground storage. The first location is West Genesee Street and the second is at Charles Park. Both sites have the capability of being connected to the existing storm drainage system. A benefit cost analysis needs to be conducted to determine the ideal location for this project. Once the location is selected, the village will begin work in improving the stormwater drainage system in the village.		
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:	Not in 1% or 0.2% floodplain	Estimated Benefits (losses avoided):	\$20M: town garage and police station located here along with residential and commercial development; reduce flooding to residential and commercial properties
Useful Life:	50 years	Goals Met:	1, 3, 4, 5, 6
Estimated Cost:	\$1M-8M	Mitigation Action Type:	Local Plans and Regulations, Structure and Infrastructure Project, Natural Systems Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	Federal and local matching funds
Responsible Organization:	Village of Solvay Highway Department	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Plan, Comprehensive Plan
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Continued flooding for private property and public facilities
	Elevate homes and businesses in this area	\$5 million	Not cost effective; long-term project; not all residents and businesses will want to elevate
	Relocation	Multi-million	Not feasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Montrose Avenue Drainage Project	
Project Number:	V. Solvay-2	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	The project will protect the Genesee Business District from flooding
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The village has the legal authority to complete the project
Fiscal	0	The project requires grant funding assistance
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flooding
Timeline	1	
Agency Champion	1	Village Highway Department
Other Community Objectives	1	
Total	13	
Priority (High/Med/Low)	High	



Figure 9.31-2. Proposed Project Location





Figure 9.31-3. Proposed Project Location

