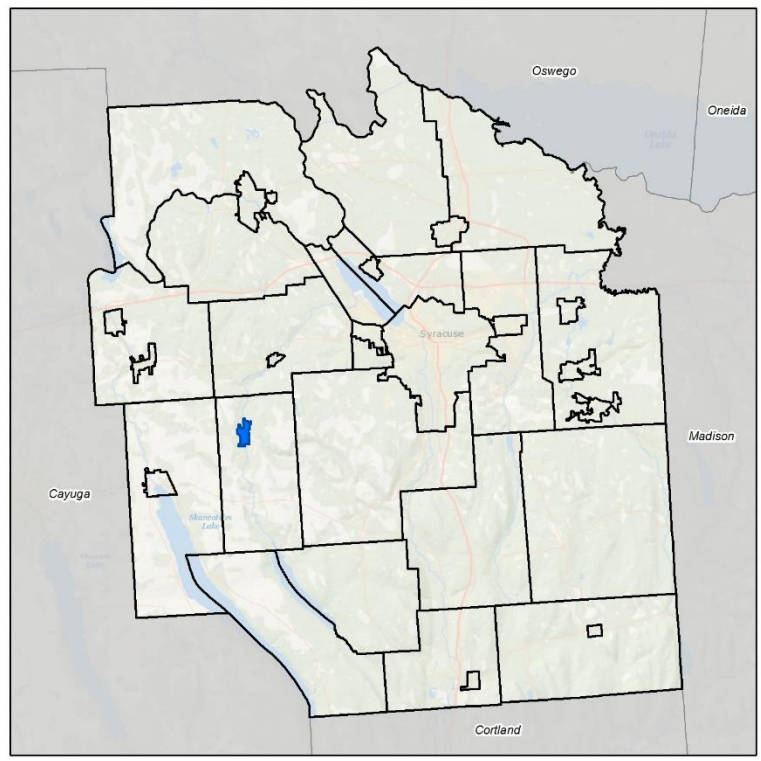
# MUNICIPAL ANNEX | Village of Marcellus




Total Population (2010 Census)
**1,813**

Total Land (square miles)
**0.6**

Total Number of Buildings
**790**

Percent of Buildings in Regulatory Floodplain
**1%**

Number of National Flood Insurance Program (NFIP) Policies and Percent in Regulatory Floodplain
**8 (50%)**

Number of Repetitive Loss (RL) Properties
**0**

Total Agricultural Land (acres)
**31.9**

Harmful Algal Bloom Impacted Waterbody
**No**

Proposed Project Types

Structure and Infrastructure Projects and Natural Systems Protection

Mitigation Focus

Severe Winter Storm

# 9.22 VILLAGE OF MARCELLUS

This section presents the jurisdictional annex for the Village of Marcellus. 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 Marcellus' risk and vulnerability; the different capabilities utilized in the village; and an action plan that will be implemented to achieve a more resilient community.

## 9.22.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Village of Marcellus' hazard mitigation plan primary and alternate points of contact.

| Primary Point of Contact | Alternate Point of Contact |
|---|---|
| Name: William Reagan<br>Title: Code Official<br>Phone Number: 315-673-3112<br>Address: 6 Slocombe Avenue, Marcellus, NY 13108<br>Email: codes@villageofmarcellus.com | Name: Robert Wicks<br>Title: Police Chief<br>Phone Number: 315-673-3112<br>Address: 6 Slocombe Avenue, Marcellus, NY 13108<br>Email: |
| **Floodplain Administrator** | |
| Name: William Reagan<br>Title: Code Official<br>Phone Number: 315-673-3112<br>Address: 6 Slocombe Avenue, Marcellus, NY 13108<br>Email: codes@villageofmarcellus.com | |

## 9.22.2 Municipal Profile

The Village of Marcellus lies within the Town of Marcellus in the southwestern interior of Onondaga County in western New York State. The Village of Marcellus has a total area of 0.6 square miles. Otisco Lake is to the south, Skaneateles Lake to the west, and Nine-Mile Creek, a noted trout stream, is to the north of the village. The Village of Marcellus is at the junction of NY-174 and NY-175 within the Town of Marcellus. Refer to Section 9.21 (Town of Marcellus) for their individual annex. The estimated 2016 population was 1,703, a 6.1 percent decrease from the 2010 Census (1,813).

The Village of Marcellus government is responsible for providing such services as police and fire protection, sewer, water supply, and highway services. The Village of Marcellus, since the election of 1899, has been governed by an elected Mayor and an elected Board of Trustees consisting of two members.

Data from the 2016 U.S. Census American Community Survey estimates that 2.3 percent of the village population is five years of age or younger, and 24.1 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

Situated between the cities of Syracuse and Auburn and a few miles from Otisco and Skaneateles Lakes, Marcellus was incorporated as a village on June 4, 1853. Marcellus developed at the crossroads of two major transportation routes, Nine Mile Creek and Seneca Turnpike, at one time called the Great Genesee Road. The water power provided by Nine Mile Creek, an outlet of Otisco Lake, attracted a variety of individuals who built a number of mills (grist, saw, barley and woolen) on the creek and the products of these mills attracted even

more individuals to the valley to work in the mills, as well as provide other services for neighboring farmers. Seneca Turnpike, an outgrowth of the Great Native American Trail that stretched across the State of New York, was a major highway in New York for people and products moving west. The original trail was practically a straight line through what would become Marcellus Village, but in 1802, when the (Seneca) Turnpike was laid out by New York State for improvement, the road-bed was changed to its present location on its way west out of the village in order to avoid the steep climb.

Stagecoach lines operating on the turnpike would help the area, particularly the valley of the Nine Mile, to develop as a trading and manufacturing center. There were a number of business establishments on the Turnpike, including the famous Alvord House, built in 1815 and located strategically in the valley for servicing those who traveled the highway.

The original corporation of the village consisted of a little over 282 acres of land, about 2/3's the present size of the village. The eastern and western boundaries of the village have changed little since 1853. Nine Mile Creek is basically the eastern boundary of the village, and the hills called the northern boundary of the village including what is commonly referred to today as Scotch Hill.

The Village of Marcellus retains some of the finest architectural and historic landmarks in Central New York, such as the Dan Bradley House (59 South Street), one of the oldest and least altered houses of the region.

### Growth/Development Trends

The Village of Marcellus did not note any residential/commercial development that has occurred since 2013 or any planned major residential or commercial development, or major infrastructure development anticipated in the next five years.

**Table 9.22-1. 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** | | | | | |
| None | | | | | |
| **Known or Anticipated Development in the Next Five (5) Years** | | | | | |
| None anticipated | | | | | |

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

## 9.22.3 Hazard Event History Specific to the Village of Marcellus

Onondaga County has a history of natural hazard 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 Marcellus' 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 9.22-2 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 9.22-2. 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 | 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.<br><br>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. | The village sustained minor tree damage |
| June 30-July 1, 2015 | Flash Flood | No | 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. | Although the county was impacted, the village did not report damages. |
| July 1, 2017 | Flash Flood | No | 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. | Debris cleanup in the village totaled $1,486.18. |

*Notes:*

*EM Emergency Declaration (FEMA)*

*FEMA Federal Emergency Management Agency*

*DR Major Disaster Declaration (FEMA)*

*N/A Not applicable*

## 9.22.4 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 Marcellus. 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 Marcellus. The Village of Marcellus 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 risk ranking for drought from medium to low.
- The village changed the risk ranking for earthquake from high to low.
- The village changed the risk ranking for severe storm from high to medium.
- The village changed the risk ranking for flood from low to medium, based on stormwater flooding concerns outside of the floodplain.

**Table 9.22-3. Village of Marcellus Municipal Hazard Ranking Input**

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

## 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 states 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 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, 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 event, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYSDHSES 2017).

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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 9.22-4. Potential Flood Losses to Critical Facilities**

| Name | Type | Exposure | | Potential Loss from 1% Flood Event | |
|---|---|---|---|---|---|
| | | 1% Event | 0.2% Event | Percent Structure Damage | Percent Content Damage |
| None identified. | | | | | |

*Source: FEMA 2016, SOPA 2018*

### Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Highland Drive, Meadow Street, and Second Street area of the village is prone to flooding due to poor drainage issues; village is currently working on alleviating this problem
- Single point of entry:
  - 3 Austindale – Nine Mile Landing Apts.28 Maple Street – Upper Crown Condominiums
  - 32 Maple Street - Library
  - 33 Maple Street – Upper Crown Landing Apts.
  - 60 North Street - Creekwalk Apartments
  - Austindale Avenue
  - Academy Green
  - Bradley Street
  - Braeside Apartments
  - Chrisler Street
  - Flower Lane
  - Highland Drive
  - Park Street
  - Paul Street
  - Wilson Drive

## 9.22.5 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 Marcellus.

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## Table 9.22-5. 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 | Yes, 7/23/2007 | Local | Codes | Village Comprehensive Plan |
| Capital Improvements Plan | No | - | - | - |
| Floodplain Management / Basin Plan | No | - | - | - |
| Stormwater Management Plan | Yes, 6/1/18 | Local | Codes | Stormwater Management Plan |
| Open Space Plan | Yes | Local | Codes | Village Code Chapter 250 |
| Stream Corridor Management Plan | Yes, 6/1/76 | Local | Codes | Nine Mile Creel Corridor Plan |
| Watershed Management or Protection Plan | No | - | - | - |
| Economic Development Plan | No | - | - | - |
| Comprehensive Emergency Management Plan | Yes, 1999 | Local | Police | V.M. Emergency Operations Plan |
| Emergency Operation Plan | Yes, 1999 | Local | Police | V.M. Emergency Operations Plan |
| Evacuation Plan | Yes, 1999 | Local | Police | V.M. Emergency Operations Plan |
| Post-Disaster Recovery Plan | No | - | - | - |
| Transportation Plan | No | - | - | - |
| Strategic Recovery Planning Report | No | - | - | - |
| Climate Adaptation Plan | No | | - | - |
| Resilience Plan | No | - | - | - |
| Other Plans: | No | - | - | - |
| **Regulatory Capability** | | | | |
| Building Code | Yes, 10/1/16 | Local | Codes | Village Code Chapter 44 |
| Zoning Ordinance | Yes, 12/27/2012 | Local | Codes | Village Code Chapter 250 |
| Subdivision Ordinance | Yes, 12/27/2012 | Local | Codes | Village Code Chapter 223 |
| NFIP Flood Damage Prevention Ordinance | Yes, 12/27/2012 | Local | Codes | Village Code Chapter 89 |
| NFIP: Cumulative Substantial Damages | No | - | - | - |
| NFIP: Freeboard | Yes | Local | Codes | State mandated BFE+2 for all construction, both residential and non-residential |
| Growth Management Ordinances | No | - | - | - |
| Site Plan Review Requirements | Yes, 12/27/2012 | Local | Codes | Village Code Chapter 204 |
| Stormwater Management Ordinance | Yes, 12/27/2012 | Local | Codes | Village Code Chapter 217 |
| Municipal Separate Storm Sewer System (MS4) | Yes | Local | Codes | - |

| 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.) |
|---|---|---|---|---|
| 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 Marcellus.

### Table 9.22-6. Administrative and Technical Capabilities

| Resources | Is this in place? (Yes or No) | Department/ Agency/Position |
|---|---|---|
| **Administrative Capability** | | |
| Planning Board | Yes | Codes |
| Mitigation Planning Committee | Yes | Codes |
| Environmental Board/Commission | No | - |
| Open Space Board/Committee | No | - |
| Economic Development Commission/Committee | No | - |
| Maintenance programs to reduce risk | Yes | - |
| Mutual aid agreements | Yes | - |
| **Technical/Staffing Capability** | | |
| Planner(s) or engineer(s) with knowledge of land development and land management practices | Yes | Codes |
| Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure | Yes | Codes/ Village Engineer |
| Planners or engineers with an understanding of natural hazards | Yes | Codes/ Village Engineer |
| NFIP Floodplain Administrator (FPA) | Yes | Codes |
| Surveyor(s) | Yes | MRB Group/ TDK Engineering |
| Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications | Yes | Codes/ MRB Group/ TDK Engineering |
| Scientist familiar with natural hazards | No | - |
| Warning systems/services | No | - |
| Emergency Manager | Yes | Police Chief |
| Grant writer(s) | Yes | MRB Group/ TDK Engineering |
| Staff with expertise or training in benefit/cost analysis | Yes | MRB Group/ TDK Engineering |
| Professionals trained in conducting damage assessments | Yes | MRB Group/ TDK Engineering |

## Fiscal Capability

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

### Table 9.22-7. 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 | Yes |
| User fees for water, sewer, gas or electric service | Yes - Sewer |
| 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 | Yes |
| Withhold public expenditures in hazard-prone areas | No |
| Other federal or state Funding Programs | Yes |
| Open Space Acquisition funding programs | No |
| Other | No |

## Community Classifications

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

### Table 9.22-8. 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) | Yes | 4 | 11/4/2016 |
| Public Protection (ISO Fire Protection Classes 1 to 10) | Yes | 4 | - |
| NYSDEC Climate Smart Community | NP | - | - |
| Storm Ready Certification | NP | - | - |
| Firewise Communities classification | NP | - | - |
| Natural disaster/safety programs in/for schools | NP | - | - |
| Organizations with mitigation focus (advocacy group, non-government) | No | - | - |
| Public education program/outreach (through website, social media) | Yes | - | - |
| 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 Marcellus' capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

**Table 9.22-9. 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

This section provides specific information on the management and regulation of the regulatory floodplain.

### NFIP Floodplain Administrator (FPA)

Bill Reagan, Code Official

### National Flood Insurance Program (NFIP) Summary

The Village of Marcellus 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 Marcellus.

**Table 9.22-10. NFIP Summary**

| Municipality | # Policies | # Claims (Losses) | Total Loss Payments | # RL Properties | # SRL Properties | # Policies in the 1% Flood Boundary |
|---|---|---|---|---|---|---|
| Village of Marcellus | 8 | 4 | $0 | 0 | 0 | 4 |

*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 Otsego County boundary, based on provided latitude and longitude coordinates.*

*RL Repetitive Loss*

*SRL Severe Repetitive Loss*

## Resources

The FPA is the sole person responsible for floodplain administration, with the assistance of the Village Engineer as necessary. NFIP administration services and functions include permit review, inspections, damage assessments, record-keeping, GIS, education and outreach. When a project is proposed or a permit applied for, a thorough review of the NFIP requirements is done with the applicant. The FPA noted that they do not have access to resources to determine possible future flooding conditions from climate change. However, they feel adequately supported and do not feel there are any barriers to running an effective floodplain management program. The FPA noted they 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 Marcellus is in good-standing in the NFIP. According to information provided by NYSDEC, the village has not had a Community Assistance Visit (CAV).

## Regulatory

**Flood Damage Prevention Ordinance:** The Village of Marcellus Flood Damage Prevention Ordinance (Chapter 89 of the municipal code) was adopted 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:

- 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;
- require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- control filling, grading, dredging and other development which may increase erosion or flood damages;
- regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;
- qualify and maintain for participation in the National Flood Insurance Program.

The objectives of this Chapter are:

- to protect human life and health;
- to minimize expenditure of public money for costly flood control projects;
- to minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- to minimize prolonged business interruptions;
- to minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in areas of special flood hazard;
- to help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- to provide that developers are notified that property is in an area of special flood hazard; and,
- to ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

The FPA noted that there are other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements. The FPA stated that the village has considered joining the Community Rating System (CRS) program to reduce flood insurance premiums for their insured and would attend a CRS seminar if 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

**Comprehensive Plan:** The 2006 Village of Marcellus Comprehensive Plan (Comprehensive Plan) addresses several components that influence village life and are important to the residents, merchants, and visitors to the Village of Marcellus, now and in the future. Relevant goals include the protection of natural resources (e.g., wetlands, floodplains, steep slopes, woodlands, etc.), open space and water quality. Implementation of these goals include: creating zoning standards to protect environmental corridors; limiting development of impervious surfaces within the 100-year floodplain; adopting erosion control and storm water ordinances; improving storm water drainage to limit infiltration into the sewer system; and identifying and remediating environmentally compromised sites which may affect ground and/or surface waters in the village. The Village of Marcellus's Comprehensive Plan does not refer to the Countywide Hazard Mitigation Plan.

**Stormwater Management Plan:** The Village of Marcellus is an MS4 Regulated Community and has a formal Stormwater Management Plan. The Plan specifies projects/actions/initiaives to reduce the volume of stormwater, or otherwise mitigate stormwater flooding.

The Village of Marcellus has a Continuity of Operations/Continuity of Government (COOP/COG) plan(s). The village's Comprehensive Emergency Management Plan does not refer to the Hazard Mitigation Plan. The village does not have a Re-Development Plan, Growth Plan, Economic Development Plan, Open Space Plan, Watershed or Stream Corridor Management Plan, Local Waterfront Revitalization Plan, Post-Disaster Recovery Plan/Strategic Recovery Plan, resilience plan/strategy, or Climate Adaptation Plan/strategy.

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### Opportunities for Future Integration

Updates to existing plans or new plans could include additional information on natural hazard risk and resilience and refer to the Countywide Hazard Mitigation Plan.

## Regulatory and Enforcement (Ordinances)

### Existing Integration

**Zoning Law:** The Village of Marcellus Zoning Ordinance (Chapter 250 of the municipal code) was enacted pursuant to the Village Law of the State of New York, Chapter 64 of the Consolidated Laws, Article 7, to protect and promote public health, safety, morals, comfort, convenience, economy, aesthetics, and the general welfare; to promote and effectuate the orderly development of the Village of Marcellus; to encourage the most appropriate use of land in the Village in order to conserve and enhance the value of property; to provide adequate and suitably located commercial facilities; to protect and enhance existing historic areas, scenic areas and waterways; to control development within the Village of Marcellus; to realize a development plan properly designed to conserve land the and the cost of municipal services; to assure privacy for residences and freedom from nuisances and things harmful to the senses; to protect the village and its inhabitants against unsightly, obtrusive and noisome land uses and operations. The ordinance references the establishment of Environmental Protection Overlay District (Chapter 73) which have not yet been adopted and are pending review. The potential adoption of the Environmental Protection Overlay District will preserve and protect unique environmental features, such as wetlands, floodplains, and water quality among others, within the Village of Marcellus.

The Village of Marcellus' municipal zoning, subdivision regulations, and site plan review process consider natural hazard risk and require developers to take additional actions to mitigate natural hazard risk. The Planning Board/ZBA is provided with flood maps and aerial photography to guide their decisions with respect to natural hazard risk management.

### Opportunities for Future Integration

The Village of Marcellus will update ordinances as necessary with information on natural hazards.

## Operational and Administration

### Existing Integration

**Planning Board:** The Planning Board of the Village of Marcellus consists of five members who are appointed by the Mayor of the village, with the consent of the Board of Trustees. This Planning Board meets once or twice a month, or as needed. The members of the board are not paid a salary, and volunteer their services for a renewable five year term. Planning Board members meet every 3th Wednesday of the month at 7:00 p.m. in the Village Hall. The Village of Marcellus Planning Board meets as needed on the 3rd Wednesday of each month at 7 p.m. The Board ensures that hazard mitigation is included in any proposed project.

**Zoning Board:** The Village of Marcellus Zoning Board meets as needed or when called by the Chair. The Board ensures that hazard mitigation is included in any proposed project.

The Village of Marcellus does not have a municipal planner, contract planning firm, or additional boards or committees that include functions with respect to managing natural hazard risk. Stormwater Management and and NFIP Floodplain Management functions are performed by the Code Official. The village has staff or contracts with firms that have experience with developing Benefit-Cost Analysis, can perform Substantial Damage Estimates, and have experience in preparing grant applications for mitigation projects. No village staff have job descriptions that involve natural hazard risk or participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. village staff

receive training or continuing professional education which supports natural hazard risk reduction. The village DPW regularly inspects and cleans stormwater catch basins.

### Opportunities for Future Integration

Staff could participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities.

## Funding

### Existing Integration

The Village of Marcellus does not have a line item for mitigation projects/activities in the municipal budget or have a Capital Improvements Budget. The village has not pursued or been awarded grant funds for mitgation-related projects. The village does not have any other mechanisms to fiscally support hazard mitgation projects.

Pre-disaster mitigation funds will be available upon FEMA approval of this plan, along with other funding available through the state and federal sources, such as the NYS Department of Conservation (Climate Smart Communities Grants, Water Quality Improvements Program, Trees for Tribes), NYS Environmental Facilities Corporation (Wastewater Infrastructure Engineering Planning, Clean Water Revolving Loan Fund, Green Innovation Grant Program), New York State Energy Research and Development Authority (Clean Energy Communities Program), and Empire State Development.

### Opportunities for Future Integration

The village could apply for grants and allocate funding from the municipal budget funding to support hazard mitigation projects.

## Education and Outreach

### Existing Integration

The Village of Marcellus currently does not have any public outreach mechanisms/programs to inform citizens on natural hazards. The village operates a municipal website (https://www.villageofmarcellus.com/) which 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 related ordinances (see Regulatory and Enforcement).

### Opportunities for Future Integration

The village could include information on natural hazards on the village website and develop education and outreach programs.

## 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 of Marcellus has identified the following potential sites for the placement of temporary housing for residents displaced by a disaster:

- Crown Mill Park: The site has capacity for 180 trailers.

- Crown Mill site: The site has capacity for 27 trailers.
- Crown Mill School: The school athletic fields have capacity for 225 trailers.

The village has not identified potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

### Evacuation and Sheltering Needs

The Village of Marcellus has not established emergency shelters, evacuation routes, or evacuation procedures.

## 9.22.6 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.

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## Table 9.22-11. 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<br>1. Project to be included in 2019 HMP or Discontinue<br>2. If including action in the 2019 HMP, revise/reword to be more specific (as appropriate).<br>3. If discontinue, explain why. |
|---|---|---|---|---|---|---|---|---|
| VLP-1 | Highland Drive Drainage Improvements | Flooding | Localized flooding | DPW | In Progress | Cost | - | 1. Include in 2019 HMP |
| | | | | | | Level of Protection | - | 2. |
| | | | | | | Damages Avoided; Evidence of Success | - | 3. - |
| VLP-2a | Inventory all trees on village property and street rights-of-way. Have arborist rate the condition of all trees and list hazardous conditions. | Wind, snow, ice | Property damage and power outages due to tree failure | DPW | In Progress | Cost | $2,000 | 1. Include in 2019 HMP |
| | | | | | | Level of Protection | - | 2. Conduct inventory of trees on village property and rights-of-way to identify the health of the trees; have an arborist rate the condition of all trees and list hazardous conditions. |
| | | | | | | Damages Avoided; Evidence of Success | - | 3. - |
| VLP-2b | Prune or remove at risk trees on village property and street rights-of-way. | Wind, snow, ice | Property damage and power outages due to tree failure | DPW | In Progress | Cost | $10,000 | 1. Include in 2019 HMP |
| | | | | | | Level of Protection | - | 2. |
| | | | | | | Damages Avoided; Evidence of Success | - | 3. - |

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## Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Marcellus has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- The Village of Marcellus 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 Marcellus 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 9.22-12 summarizes the comprehensive-range of specific mitigation initiatives the Village of Marcellus 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 9.22-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

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## Table 9.22-12. Proposed Hazard Mitigation Initiatives

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V. Marcellus-1 (previous action) | Highland Drive Drainage Improvements | Marcellus Village lies in a valley surrounded by hills and the village and its residents, particularly in the northwest quadrant, have an issue with water coming off the hills into the village. This problem seems to be getting worse each year, flooding residents' homes downstream and also causing much damage elsewhere in the village. The village is not sure how much the farming practices of upland farmers are contributing to this, but more erosion and water runoff has definitely increased in recent years. This is a problem for the Town of Marcellus as well, since the water originates in the town and comes into the village. Unfortunately, because the village owns and operates its own treatment | Additional work to alleviate this problem in the Highland Drive area will include: •Deepening of ditches in village rights-of-way – this is currently on-going •Installation of retention ponds •Creation of swales above Highland Drive •Removal of and installation of properly sized storm water pipes - some of this has been done but more need to be installed •Dredging of ponds •Creation of drainage districts in watersheds | Flood, Severe Storm | 1, 4 | No | No | 1 year | Village Highway and Engineer | $100,00+ | Reduce/ eliminate stormwater flooding and damages to homes in the area; increase water quality; reduce erosion and runoff | Village Budget, FEMA FMA and HMGP, CDBG, BridgeNY | High | SIP, NSP | PP, N R |

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | plant, Marcellus is not eligible for Onondaga County's Save the Rain Program.<br><br>The village has hired an engineering firm to conduct a drainage study of the area in question, Highland Drive and neighboring streets, and one of the recommendations, was to install uniform culvert pipes under the driveways on Highland Drive so as to more easily capture the water that is coming off the hills and divert that water to larger pipes on Reed Parkway, effectively taking it to Nine Mile Creek. At present, the village keeps the ditches open on Highland Drive, which is the first line of defense against flooding, but the culvert pipes are either too small or inadequate or non-existent to handle the water off the western | | | | | | | | | | | | | |

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | hills. The estimated cost for the installation of culvert pipes on Highland Drive, including storm sewer piping, drainage structures, stone, driveway and road repair, grading and restoration as well as soft costs, was approximately $50,000. However, both the Town of Marcellus Highway Department and the Village. D.P.W., through an IMA to which both municipalities agreed, were able to do the work, saving much funding. The job has been completed and the ditches seem to be holding, for now. | | | | | | | | | | | | | |
| V. Marcellus-2 | Stormwater Drainage Issues throughout village | The following roads (Coon's Pond, Flower Lane, Seneca Turnpike, Reed Street, West Main, Kelly Avenue, Meadow Street, First Street, Second Street, Highland, and Limeledge) have stormwater | The village will conduct various stormwater improvements to alleviate stormwater flooding. | Flood, Severe Storm | 1, 4 | No | No | 1 year | Village Highway and Engineer | $100,00+ | Reduce/eliminate stormwater flooding and damages to homes in the area; increase water quality; reduce | Village Budget, FEMA FMA and HMGP, CDBG, BridgeNY | High | SIP, NSP | PP, NR |

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | flooding issues due to undersized culverts, debris accumulation, and inadequate drainage systems. | | | | | | | | | erosion and runoff | | | | |
| V. Marcellus-3 (previous action) | Prune or remove at risk trees on village property and street rights-of-way. | At risk trees on village property and street right-of-ways. Falling trees or limbs may cause loss of power, damage to assets, dangerous conditions for personnel, injury or death to persons or obstruction of emergency response. | Based on the tree inventory conducted for the village, remove or prune the trees identified as high priority. This will reduce or eliminate the significant damage fallen trees can have on residents and infrastructure in the village. For the trees removed, the village will replace with new trees. | Severe Storm and Severe Winter Storm | 1, 3, 4 | No | No | Within 1 year | Village Highway Dept. | $10,000 | Reduce or eliminate risk of fallen trees and damages associated with trees | Village Budget, FEMA HMGP, NYSDEC Environmental Protection Fund | High | SIP, NSP | PP, NR |
| V. Marcellus-4 | Backup power for the Village Hall | Village Hall serves as the village departments and police station. The hall currently does not have a generator to provide energy to power the building during emergencies. Having the village Hall open during emergencies is | Purchase and install a backup generator to power the entire Village Hall complex. | All | 1, 3, 6 | Yes | No | 1 year | Village Board, Village Engineer | $10,000 | Full power the Village Hall and provide services to community; continuity of operations | Village Budget, FEMA FMA and HMGP | Medium | SIP | PP |

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | essential as it serves as the police station and department offices. The hall needs to be operations during emergencies to take calls, dispatch police and emergency personnel, and provide a place of refuge for residents. | | | | | | | | | | | | | |
| V. Marcellus-5 | Backup power for the Village DPW garage | The Village DPW garage currently does not have backup power. This poses a problem in the event of a power outage. The facility needs to continuously operate during disasters to clear debris, plow roads, and be available for emergency calls. Without power, trucks cannot be fueled as well. | Purchase and install a backup generator at the DPW garage. | All | 1, 3, 6 | Yes | No | 1 year | Village Highway Department | $10,000 | Provide power during power outages; continuity of operations | Village Budget, FEMA FMA and HMGP | Medium | SIP | PP |
| V. Marcellus-6 (previous action) | Tree Inventory for Villagv | Property damage and power outages due to tree failure | Inventory all trees on village property and street rights-of-way. Have arborist rate the condition of all trees and list hazardous conditions. | Severe Storm and Severe Winter Storm | 1, 3, 4 | No | No | Within 1 year | Village Highway Dept. | $2,000 | Identifies at-risk tress; provides a guideline for the village to use to develop program | Village Budget | High | NSP | PP, N R |

| Project Number | Project Name | Description of the Problem | Description of the Solution | Hazard(s) Mitigated | Goals Met | Critical Facility (Yes / No) | EHP Issues ? | Estimated Timeline | Lead and Support Agencies | Estimated Cost | Estimated Benefits | Potential Funding Sources | Priority | Mitigation Category | CRS Category |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| V. Marcellus-7 | Remove trees from Nine Mile Creek | Nine Mile Creek has downed trees, resulting in potential flooding from log jams | The village will remove downed trees from Nine Mile Creek and continue to monitor for additional falling trees. | Flood, Severe Storm, Severe Winter Storm | 1, 3, 4 | No | Permitting for work in Creek | 1 year | DPW | $20,000 | Reduce likelihood of logjam and debris caused flooding in Nine Mile Creek | HMGP, PDM, village budget | High | NSP | NR |

*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.*

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- *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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## Table 9.22-13. 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. Marcellus-1 (previous action) | Highland Drive Drainage Improvements | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 11 | High |
| V. Marcellus-2 | Stormwater Drainage Issues throughout village | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 11 | High |
| V. Marcellus-3 (previous action) | Prune or remove at risk trees on village property and street rights-of-way. | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 11 | High |
| V. Marcellus-4 | Backup power for the Village Hall | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 9 | Medium |
| V. Marcellus-5 | Backup power for the Village DPW garage | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 8 | Medium |
| V. Marcellus-6 (previous action) | Tree Inventory for village | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 12 | High |
| V. Marcellus-7 | Remove trees from Nine Mile Creek | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 11 | 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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## 9.22.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

## 9.22.8 Staff and Local Stakeholder Involvement in Annex Development

The Village of Marcellus 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: the Code Official and Police Chief. The Code Official represented the community on the Onondaga 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.

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

## 9.22.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Village of Marcellus 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 Marcellus has significant exposure. A map of the Village of Marcellus 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.

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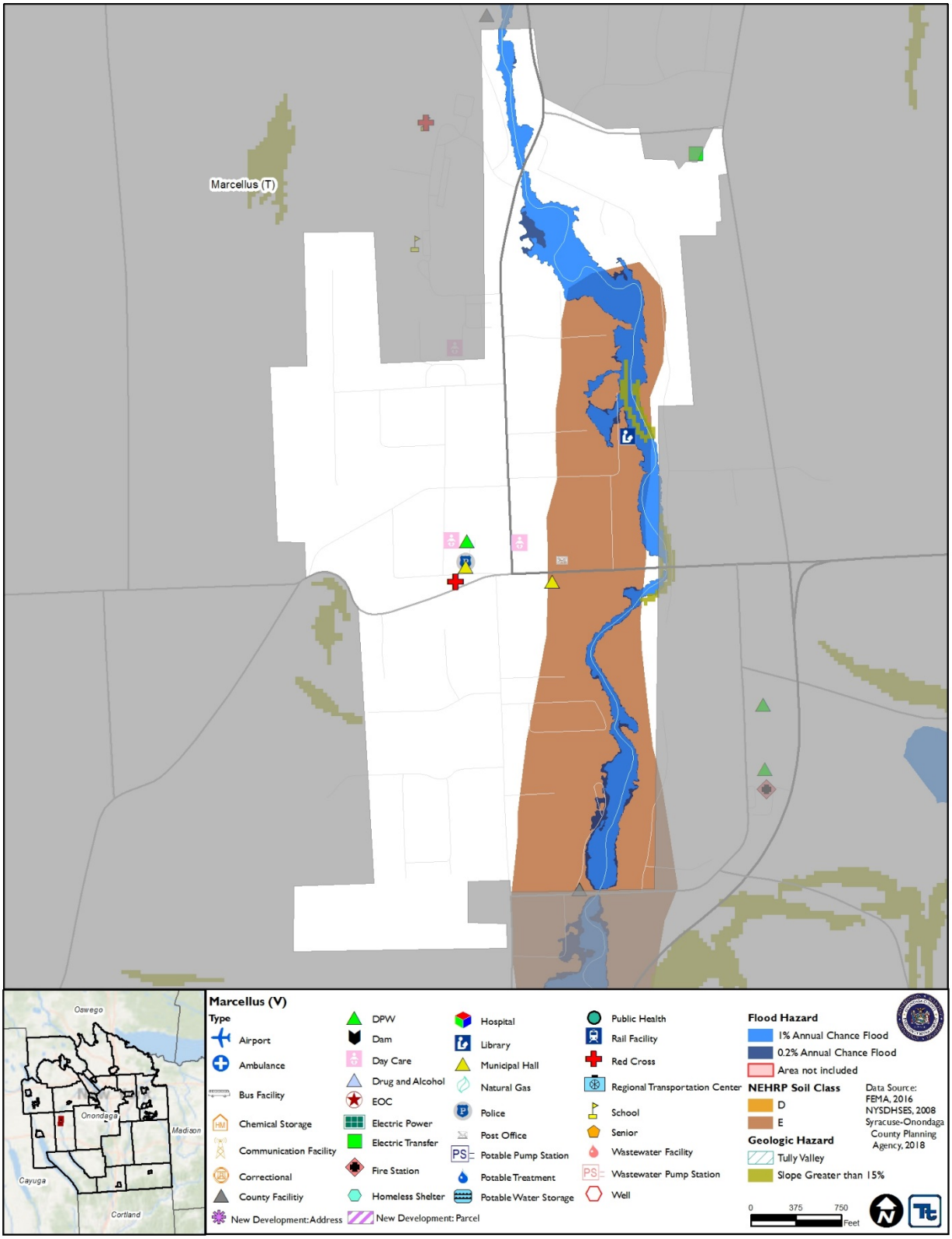
**Figure 9.22-1. Village of Marcellus Hazard Area Extent and Location Map**



| Action Worksheet | | | |
|---|---|---|---|
| **Project Name:** | Highland Drive Drainage Improvements | | |
| **Project Number:** | V. Marcellus-1 (previous action) | | |
| **Risk / Vulnerability** | | | |
| **Hazard(s) of Concern:** | Flood and Severe Storm | | |
| **Description of the Problem:** | Marcellus Village lies in a valley surrounded by hills and the village and its residents, particularly in the northwest quadrant, have an issue with water coming off the hills into the village. This problem seems to be getting worse each year, flooding residents' homes downstream and also causing much damage elsewhere in the village. The village is not sure how much the farming practices of upland farmers are contributing to this, but more erosion and water runoff has definitely increased in recent years. This is a problem for the Town of Marcellus as well, since the water originates in the town and comes into the village. Unfortunately, because the village owns and operates its own treatment plant, Marcellus is not eligible for Onondaga County's Save the Rain Program.<br><br>The village has hired an engineering firm to conduct a drainage study of the area in question, Highland Drive and neighboring streets, and one of the recommendations, was to install uniform culvert pipes under the driveways on Highland Drive so as to more easily capture the water that is coming off the hills and divert that water to larger pipes on Reed Parkway, effectively taking it to Nine Mile Creek. At present, the village keeps the ditches open on Highland Drive, which is the first line of defense against flooding, but the culvert pipes are either too small or inadequate or non-existent to handle the water off the western hills. The estimated cost for the installation of culvert pipes on Highland Drive, including storm sewer piping, drainage structures, stone, driveway and road repair, grading and restoration as well as soft costs, was approximately $50,000. However, both the Town of Marcellus Highway Department and the Village. D.P.W., through an IMA to which both municipalities agreed, were able to do the work, saving much funding. The job has been completed and the ditches seem to be holding, for now. | | |
| **Action or Project Intended for Implementation** | | | |
| **Description of the Solution:** | Additional work to alleviate this problem in the Highland Drive area will include:<br>• Deepening of ditches in village rights-of-way – this is currently on-going<br>• Installation of retention ponds<br>• Creation of swales above Highland Drive<br>• Removal of and installation of properly sized storm water pipes - some of this has been done but more need to be installed<br>• Dredging of ponds<br>• Creation of drainage districts in watersheds | | |
| **Is this project related to a Critical Facility?** | Yes ☐ | No ☒ | |
| (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:** | 100-year | **Estimated Benefits (losses avoided):** | Reduce/eliminate stormwater flooding and damages to homes in the area; increase water quality; reduce erosion and runoff |
| **Useful Life:** | 30-year | **Goals Met:** | 1, 4 |
| **Estimated Cost:** | $100,000+ | **Mitigation Action Type:** | Structure and Infrastructure Project, Natural Systems Protection |
| **Plan for Implementation** | | | |
| **Prioritization:** | High | **Desired Timeframe for Implementation:** | Within 6 months |
| **Estimated Time Required for Project Implementation:** | 1 year | **Potential Funding Sources:** | Village Budget, FEMA FMA and HMGP, CDBG, BridgeNY |

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| | | | |
|---|---|---|---|
| **Responsible Organization:** | Village Highway Department and Village Engineer | **Local Planning Mechanisms to be Used in Implementation if any:** | Hazard Mitigation, Capital Improvement, Stormwater Management |
| **Three Alternatives Considered (including No Action)** | | | |
| **Alternatives:** | **Action** | **Estimated Cost** | **Evaluation** |
| | No Action | $0 | |
| | Continue maintenance of and clearing culverts of debris | $40,000 | Not a long term solution to the current issue; with every storm, more debris accumulates |
| | Acquire homes and relocate to area outside of risk zone | $1,000,000+ | Limited land in the village to relocate homes; otherwise, residents would need to move out of the village and risk the losing the tax base of those properties. |
| **Progress Report (for plan maintenance)** | | | |
| **Date of Status Report:** | | | |
| **Report of Progress:** | | | |
| **Update Evaluation of the Problem and/or Solution:** | | | |

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| Action Worksheet | | |
|---|---|---|
| **Project Name:** | Highland Drive Drainage Improvements | |
| **Project Number:** | V. Marcellus-1 (previous action) | |
| **Criteria** | **Numeric Rank (-1, 0, 1)** | **Provide brief rationale for numeric rank when appropriate** |
| **Life Safety** | 1 | |
| **Property Protection** | 1 | Project will protect Highland Drive area from flooding. |
| **Cost-Effectiveness** | 1 | |
| **Technical** | 1 | |
| **Political** | 1 | |
| **Legal** | 1 | The village has the legal authority to conduct the project. |
| **Fiscal** | 0 | Project will require funding assistance. |
| **Environmental** | 1 | |
| **Social** | 0 | |
| **Administrative** | 1 | |
| **Multi-Hazard** | 1 | Flood, Severe Storm |
| **Timeline** | 1 | |
| **Agency Champion** | 1 | Village Highway Department and Village Engineer |
| **Other Community Objectives** | 0 | |
| **Total** | 11 | |
| **Priority (High/Med/Low)** | High | |

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| Action Worksheet | |
|---|---|
| **Project Name:** | Stormwater Drainage Issues throughout Village |
| **Project Number:** | V. Marcellus-2 |
| **Risk / Vulnerability** | |
| **Hazard(s) of Concern:** | Flood and Severe Storm |
| **Description of the Problem:** | The following roads (Coon's Pond, Flower Lane, Seneca Turnpike, Reed Street, West Main, Kelly Avenue, Meadow Street, First Street, Second Street, Highland, and Limeledge) have stormwater flooding issues due to undersized culverts, debris accumulation, and inadequate drainage systems. The village has done a lot of work to reduce the issues; however, more work needs to be done. The following is what has been done in these areas:<br>• Coon's Pond, Flower Lane & Seneca Turnpike<br>  ○ Continuous removal of debris from Coon's Pond outlet<br>  ○ Continued dredging of Coon's Pond to eliminate silt<br>  ○ Deepening of ditches in back of Flower Lane properties<br>  ○ Use of rip-rap in Flower Lane ditches<br>  ○ Resizing of pipes in Flower Lane ditches<br>  ○ Keeping Flower Lane ditches clear of debris<br>• Reed, Kelly, West Main & Seneca Turnpike<br>  ○ Deepening of ditches on west side of Kelly Avenue<br>  ○ Deepening of ditches in back of Reed Street properties<br>  ○ Use of rip-rap in Reed Street properties<br>  ○ Keeping Reed Street ditches clear of debris<br>  ○ Re-routing storm water on Reed Street to north side of street<br>  ○ Directing storm water from Old Seneca Turnpike to West Main<br>  ○ Resizing West Main Street catch basins<br>• Meadow, Second, Highland & Limeledge<br>  ○ Resizing inlet catch basins on Meadow and First<br>  ○ Enlarging pipes in back of Meadow Street properties<br>  ○ Enlarging ditches in back of Meadow Street properties<br>  ○ Deepening of catch basins in back of Meadow Street properties<br>  ○ Deepening of catch basins on Second Street<br>  ○ Installation of curbing on both sides of Meadow Street<br>  ○ Opening and deepening of ditches on Highland<br>  ○ Installation of properly sized culvert pipes under Highland driveways<br>  ○ Creation of swales above Highland, on the Limeledge<br>• First, Reed Parkway, Meadow & Second<br>  ○ Resizing inlet catch basins on Meadow and First<br>  ○ Enlarging pipes in back of Meadow Street properties<br>  ○ Enlarging ditches in back of Meadow Street properties<br>  ○ Deepening of catch basins in back of Meadow Street properties<br>  ○ Deepening of catch basins on Second Street<br>  ○ Installation of curbing on both sides of Meadow Street<br>  ○ Opening and deepening of ditches on Highland<br>  ○ Installation of properly sized culvert pipes under Highland driveways<br><br>While the village has a maintenance program in place, an enhanced program is needed to keep up with the issues in these areas of the village. While structures are not generally affected, the streets are flooded and lead to road closures; these are main roadways in the village. |
| **Action or Project Intended for Implementation** | |
| **Description of the Solution:** | The village identified the following projects to help alleviate the stormwater flooding issues in these areas:<br>• Coon's Pond, Flower Lane & Seneca Turnpike<br>  ○ Conduct a drainage study to identify the best solutions<br>  ○ Keeping ditches clear of debris in back of private properties - urge residents to do this |

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| | ○ Removal of and installation of properly sized storm water pipes - some of this has been done<br>○ Dredging of ponds<br>○ Creation of drainage districts in watersheds<br>• Reed, Kelly, West Main & Seneca Turnpike<br>○ Updated Drainage Study - we have done several of these<br>○ Deepening of ditches in village rights-of-way - on-going<br>• Meadow, Second, Highland & Limeledge<br>○ Updated Drainage Study - we have done several of these<br>○ Deepening of ditches in village rights-of-way - on-going<br>○ Installation of retention ponds<br>○ Creation of drainage districts in watersheds<br>• First, Reed Parkway, Meadow & Second<br>○ Updated Drainage Study - we have done several of these<br>○ Keeping ditches clear of debris in back of private properties - urge residents to do this<br>○ Creation of drainage districts in watersheds |

| **Is this project related to a Critical Facility?** | Yes ☐ | No ☒ |
|---|---|---|

(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)

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| **Level of Protection:** | 100-year | **Estimated Benefits (losses avoided):** | Reduce/eliminate stormwater flooding and damages to homes in the area; increase water quality; reduce erosion and runoff |
| **Useful Life:** | 30-year | **Goals Met:** | 1, 4 |
| **Estimated Cost:** | $100,000+ | **Mitigation Action Type:** | Structure and Infrastructure Project, Natural Systems Protection |
| **Plan for Implementation** | | | |
| **Prioritization:** | High | **Desired Timeframe for Implementation:** | Within 6 months |
| **Estimated Time Required for Project Implementation:** | 1 year | **Potential Funding Sources:** | Village Budget, FEMA FMA and HMGP, CDBG, BridgeNY |
| **Responsible Organization:** | Village DPW to initiate project; hired contractors to complete the project | **Local Planning Mechanisms to be Used in Implementation if any:** | Hazard Mitigation, Capital Improvement, Stormwater Management |

**Three Alternatives Considered (including No Action)**

| | **Action** | **Estimated Cost** | **Evaluation** |
|---|---|---|---|
| **Alternatives:** | No Action | $0 | |
| | Elevate the streets and structures in this area of the Village | $50,000,000 | Not feasible; all roads, homes, and structures would need to be elevated; project would take some time to complete |
| | Continue maintenance of and clearing culverts of debris | $40,000 | Not a long term solution to the current issue; with every storm, more debris accumulates |

**Progress Report (for plan maintenance)**

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

| Action Worksheet | | |
|---|---|---|
| **Project Name:** | Stormwater Drainage Issues throughout Village | |
| **Project Number:** | V. Marcellus-2 | |
| **Criteria** | **Numeric Rank (-1, 0, 1)** | **Provide brief rationale for numeric rank when appropriate** |
| **Life Safety** | 1 | Project will reduce flooding risk |
| **Property Protection** | 1 | Project will reduce stormwater flooding issues |
| **Cost-Effectiveness** | 1 | |
| **Technical** | 1 | |
| **Political** | 1 | |
| **Legal** | 1 | The village has the legal authority to conduct the project |
| **Fiscal** | 0 | |
| **Environmental** | 1 | |
| **Social** | 0 | |
| **Administrative** | 1 | |
| **Multi-Hazard** | 1 | Flood, Severe Storm |
| **Timeline** | 1 | 1 year |
| **Agency Champion** | 1 | Village DPW |
| **Other Community Objectives** | 0 | |
| **Total** | 11 | |
| **Priority (High/Med/Low)** | High | |

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