

Village of Menands

This section presents the jurisdictional annex for the Village of Menands for the 2024 Albany County Hazard Mitigation Plan (HMP). It includes information and guidance intended to assist public and private entities in reducing losses from future natural hazard events. This jurisdictional annex focuses on actions that can be implemented prior to a natural hazard event to reduce adverse impacts to people and property; it is not intended to serve as guidance for what to do when a natural hazard event occurs or how to recover following a natural hazard event. This jurisdictional annex provides an overview of the community and its critical facilities, evaluates the community's vulnerability to various natural hazards, assesses the community's existing capability to mitigate natural hazards, and identifies actions that could be implemented to mitigate natural hazard risks and, ultimately, reduce damages to people and property resulting from natural hazard events.

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1 CONTACT INFORMATION

The primary contacts for Albany County regarding this Jurisdictional Annex are identified as follows:

- Primary: Don Handerhan, Village Clerk
 - dhanderhand@menandsny.gov
 - (518) 434-2922
- Alternate: Brian Marsh, Mayor
 - bmarsh@menandsny.gov
 - (518) (cell) 222-8187

Village of Menands Website: <https://villageofmenands.com>

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2 COMMUNITY SNAPSHOT

2.1 Demographics

The 2020 Census estimated that 4,554 people live in the Village of Menands. The Village of Menands' population has increased by 14.1% since the 2010 Census (3,990). The median age in the Village of Menands is 35 years, and 12% of the population is over the age of 65. The median household income in the Village of Menands is \$73,281.

2.2 Location & Land Characteristics

The Village of Menands is located within the Town of Colonie, north of the City of Albany on the western bank of the Hudson River. The Village is bordered by the City of Albany, the City of Watervliet, the Town of Colonie, and the City of Troy beyond the Hudson River. The Village of Menands covers approximately 3.1 square miles. The properties within the Village of Menands have a total assessed value of approximately \$370,792,654, which is distributed across a variety of property classes.

Major transportation corridors in the Village of Menands include New York State Route 32, New York State Route 377 and New York State Route 378, which is a four-lane state route is running from the Town of Colonie town line to the Troy-Menands Bridge and I-787. The key water feature within the Village of Menands is the Hudson River.

2.3 Governing Body

The mayor and four village trustees govern the Village of Menands.

2.4 Recent and Anticipated Future Development

According to a review of 239 Referrals since the last County HMP (2018), several new developments have been approved or proposed within the Village. The proposals that the Village received are summarized in Table 2-1 below. Some of the proposals for the Village may be in the 0.1% or 0.2% annual chance flood event area, but this was not specified in the proposal. These developments may affect the Village's vulnerability to the hazards identified in this HMP. No building permits have been issued for the Village of Menands between 2018 to 2022.

Table 2-1. Developments from 2018 to 2023

Project Name	Project Location	Consideration	Date
U-Haul Self Storage		The applicant is planning to adaptively re-use and re-purpose the existing 300,000 s.f. dilapidated, former press building located within the Broadway Business District in the Village of Menands. The existing building will be rehabilitated to allow for indoor storage, vehicle storage and retail use by the applicant. (nearly complete)	2/25/2019
A1 Self Storage LLC	30 Broadway	Use Variance to build a 450 s.f. self storage building with units varying in size. (not completed – withdrawn)	3/21/2019
Harmony Prima Lofts, LLC	1 Broadway	Subdivision review to enable a separate tax parcel for a self-storage unit	10/24/2019
The Village of Menands Comprehensive Plan	N/A	The adoption of a comprehensive plan for the Village of Menands.	5/21/2020
30 Broadway A-1 Storage	30 Broadway	Site Plan Review for the construction of a 4500 SF 1 story building with storage units (not completed - withdrawn)	6/18/2020
35 Broadway - Veterans Housing	35 Broadway, Menands, NY	Site Plan Review for new construction of a four-story apartment building (in progress)	10/15/2020
Capital District Cooperative Building Replacement	15 Elmwood Rd Ext	Site plan review for removal of the existing 356'x50' open pavilion and install a new 282'x80' enclosed metal building with multiple overhead doors for the purpose of wholesale agricultural products. (completed)	11/18/2021
Vertical Bridge - Cell Tower	15 Elmwood Rd Ext	Special use permit and use variance for construction of 150 feet high telecommunication monopole tower inside a fenced enclosure. (completed)	11/18/2021

Project Name	Project Location	Consideration	Date
Daughters of Charity New Community	98 Menand Road (approx. 650 feet east of intersection with Van Rensselaer Blvd)	Area variance and use variance for the proposed multi-phase project, including (1) Village Center Area (2) 76 Independent/ Assisted Living units in a four-story structure (3) 28 Assisted Living Units and Assisted Living/Memory Care Units in a two-story structure (4) 60 Cottages in duplex and triplex units (5) Structured parking for 58 cars (6) Surface parking and (7) Walking paths. (planning stage)	2/17/2022
Daughters of Charity New Community	98 Menand Road (approx. 650 feet east of intersection with Van Rensselaer Blvd)	Area variance and use variance for the proposed multi-phase project, including (1) Village Center Area (2) 76 Independent/ Assisted Living units in a four-story structure (3) 28 Assisted Living Units and Assisted Living/Memory Care Units in a two-story structure (4) 60 Cottages in duplex and triplex units (5) Structured parking for 58 cars (6) Surface parking and (7) Walking paths. (planning stage)	2/28/2022
Garages at No. One Broadway in Menands	1 Broadway, Menands	Area variance to allow construction of 26 garages which will provide weather protected parking for tenants.	6/16/2022
15 Elmwood Road Ext (AKA 381 Broadway)	15 Elmwood Road Ext.	Site plan review to install a 150 ft monopole communications tower. (see Vertical Bridge above – completed)	7/21/2022
Minor subdivision of No. 431 Broadway	431 Broadway Village of Menands	Subdivision review to divide the parcel into two lots. Lot No.1 is occupied by 142,000 SF building and Lot No.2 is potentially identified to build a medical office building. (on hold – ownership change of parcel)	10/20/2022
37 Simmons Lane	37 Simmons Lane, Menands	Site plan review for the construction of two new warehouses approximately 28-feet in height with associated parking, utilities and landscaping. Building 1 to be 45,500 SF and Building 2 to be 35,100 SF. (nearly complete)	12/15/2022
Adoption of Local Law #1 of 2023, Chapter 169 Zoning Law Amendments	Village of Menands	Adoption of local law entitled A Local Law of the Village of Menands repealing existing Chapter 169 Zoning Law of the Village of Menands, Chapter 30 Planned Development Districts, Chapter 100 Gasoline Stations, Chapter 140 Site Plan Review and Chapter A172 Site Plan Regulations and replacing with a new Chapter 169 Zoning Law of the Village of Menands.	2/16/2023

Project Name	Project Location	Consideration	Date
90 Broadway NYS Licensed Cannabis Dispensary	90 Broadway	Special use permit to operate a NYS Licensed Cannabis Dispensary in Retail Space #8 at Mid-City Plaza. (Approved and operating)	6/15/2023
Local Law 5 of 2023 Amending Menands Chapter 169, "Zoning" by adding Schedule 4, Frontage Types	Village of Menands	Local law amendment for the addition of Schedule 4, Frontage Types to Chapter 169 "zoning" and application to T4 (Infill Neighborhood), T5 (Infill Mixed-Use) and BBD (Broadway Business) Zoning Districts. Schedule 4 was inadvertently left out of Local Law 1 of 2023 which repealed and replaced Chapter 169, "Zoning."	6/15/2023
Local Law 6 of 2023 Amending the Menands Village Code and referred to as "Village of Menands Code Recodification 1"	Village of Menands	Local law amendment to exclude chapters that are no longer applicable.	6/15/2023
Local Law #7 - Village of Menands	Village of Menands	Local law amendment of Chapter 169 related to controlled substance dispensaries.	7/20/2023
4 Unit Apartment Building	50 -56 Clifford Road	Site plan review for construction of four additional 16-unit apartment building in addition to the two existing 4-unit apartments buildings including parking, pedestrian access, landscaping and connects to Village water and sewer. (approved - in progress)	9/21/2023
Local Law #7 - Village of Menands	Village of Menands	Adoption of local law to amend Chapter 169 to control substance dispensaries.	9/21/2023

Project Name	Project Location	Consideration	Date
Franciscan Ministries - New Community	98 Menand Road	Site plan review for the proposed development of senior community. The completed project will include (1) Village Center Area (2) 76 Independent/ Assisted Living units in a four-story structure (3) 28 Assisted Living Units and Assisted Living and 36 Assisted Living/Memory Care Units in a four-story structure (4) 56 Cottages in duplex and triplex units (5) Structured parking for 50 cars (6) Surface parking and (7) Walking paths. (See Daughters of Charity above – planning stage)	9/21/2023
Bloom Bros - Cannabis Dispensary	442 Broadway	Special use permit application to open a new retail cannabis dispensary. (approved – in progress)	12/21/2023

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3 CAPABILITIES ASSESSMENT

3.1 Planning Mechanisms and Capabilities

The Village of Menands identified the following planning mechanisms and capabilities that can support the Village in hazard mitigation efforts. These capabilities can be used to support the mitigation strategy in several ways. For example, administrative capabilities can assist in implementing the mitigation actions as identified in the mitigation strategy. Existing building codes and land use regulations provide a foundation for mitigation planning and provide guidelines for infrastructure repair, new developments, and other actions. Educational programs may be developed further to more fully incorporate hazard mitigation. Table 3-1 elaborates on existing building codes, land use and development ordinances/regulations, and many other capabilities which can support hazard mitigation.

Table 3-1. Planning Mechanisms & Capabilities

Planning Mechanism	In Place? (Yes/No)	Notes (Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Administration		
Maintenance Programs	Yes	Tree trimming and cleaning drainage problems are done on an as needed basis
Mitigation Planning Committee	No	
Mutual Aid or Shared Services Agreements	Yes	Town of Colonie for Fire Dept. and the Watervliet Arsenal
Planning Board	Yes	
Zoning Board	Yes	
Other		
Development Approvals		
Building Code	Yes	NYS 2020

Planning Mechanism	In Place? (Yes/No)	Notes (Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Fire Department ISO Rating	Yes	In the range of 4.8 or 5
Site Plan Review Requirements	Yes	New site plan requirements with zoning. Includes stormwater. Major projects reviewed by LaBella
Other		
Funding Resources		
Authority to Levy Taxes	Yes	G.F. expenditures
Capital Improvement Project Funds	No	Have implemented capital improvements to park, fire department received \$300K grant
Federal Funding Programs (i.e., USDA, FEMA, others)	Yes	Grants
General Obligation Bonds and/or Special Tax Bonds	Yes	Capital Improvement Projects
Impact Fees for New Development	No	See note below
State Funding Programs (i.e., NYSEFC, NYSOGR, NYSDEC, others)	Yes	Grants
Utility Fees (i.e., water, sewer, stormwater, gas, electric)	Yes	Water and sewer funds expenditures (No stormwater). Radio-run information from water meters (get information automatically) – for residents and some businesses.
Other		
Land Use Regulations		
Density Controls	Yes	
Flood Insurance Rate Maps	Yes	
NFIP Participant / Floodplain Ordinance	Yes	See "Floodplain Administrator" row below (under "Staff Positions")
Hillside Development Regulations	No	No very steep slopes
Open Space Preservation	Yes	2-3 areas in Village are Forever Wild / natural habitat
Stormwater Management Regulations	Yes	Chapter 143 (includes Erosion and Sediment Control measures), Signatory on Albany County Intermunicipal Agreement for Storm Water Management

		Notes
Planning Mechanism	In Place? (Yes/No)	(Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
Streambank Setback Regulations	No	
Subdivision Regulations	Yes	
Zoning Ordinance	Yes	
Other	Yes	Flood Damage Prevention
Natural Resources		
Forest/Vegetation Management	No	
Stream Corridor Management	No	
Stream Dumping Regulations	No	
Urban Forestry and Landscape Management	No	
Watershed Management	Yes	Kromma Kill Watershed Alliance
Wetland Regulations	No	
Other		If the Village becomes concerned about any of the above issues for a specific site, LaBella would require site plan review that includes these specific issues.
Plans		
Capital Improvement Plan	No	
Comprehensive Emergency Management Plan	Yes	
Comprehensive Plan	Yes	2020
Continuity of Operations Plan	No	
Economic Development Plan	Yes	Have economic development team
Other		Stormwater Management Plan (2014)
Programs/Organizations		
Climate Smart Community	Yes	Registered
Local Emergency Preparedness/Disaster Response Organizations	Yes	Volunteer Fire Department and Fire Company, Village Police Department
Local Environmental Protection Organizations	No	DEC assists with any issues

		Notes
Planning Mechanism	In Place? (Yes/No)	(Does the plan address hazards? Can the capability be used to implement mitigation actions? When was it last updated?)
National Weather Service Storm Ready Certification	No	Receives updates from County, all department heads have access to NY Alert
Outreach Programs	No	Have educated on man-made hazards (e.g. train evacuation drill)
Partnerships with private entities addressing mitigation or disaster response	Yes	Call Red Cross as needed, part of emergency plan.
School Programs or Adult Educational Programs	Yes	Fire Department does fire prevention week at school and the Village office sends out a water quality report
Other		
Staff Positions		
Civil Engineer	No	Work with LaBella
Code Enforcement Officer	Yes	Lyle Darmetko
Emergency Manager	Yes	Mike Hagmann
Floodplain Administrator	Yes	Lyle Darmetko (Code Enforcement Officer) David Ognan (MS4 officer and Fire Chief)
Planner/GIS Coordinator	No	Work with LaBella for GIS (integrating water, sewer, zoning into one system)
Other		
Technical Abilities		
Grant Writing	Yes	LaBella, and grant writer staff through fire department
Hazard Information Centers	Yes	New EOC
Hazard Warning Systems	Yes	EverBridge system for notices. Rely on Albany County for Reverse 911, IPAWS. NY Alert system
Other		
When there is a drought, the Village currently implements water restrictions (e.g. no watering between certain hours, pause car washes, etc.). Reaches residents through Facebook, Everbridge, biweekly newsletter, website, notified media.		

The Village's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 3-1. In particular, the Village should review Table 3-1 when completing updates to the

Comprehensive Plan and amendments to the Zoning Code. As part of this review, the Village may strategize opportunities for building the hazard mitigation mechanisms and capabilities currently marked “No” in the table (where feasible) by designating lead agencies in charge of closing such gaps, connecting with partners and technical support resources, establishing a timeline and next steps, estimating costs, and applying for grant funding when necessary. In an update to the Comprehensive Plan, this process may result in the development and inclusion of detailed proposed action items and implementation frameworks that address gaps in hazard mitigation mechanisms and capabilities. In an amendment to the Zoning Code, this process may result in the modification of existing laws or the drafting and adoption of new laws to address gaps in hazard mitigation mechanisms and capabilities.

Furthermore, the Village would like to expand and improve the capabilities listed in Table 3-1 in the following ways:

- NYSDOT projects have potential risk to Village and other municipalities. DOT is looking at “Revising” 787, which prevents river from overflowing and flooding Village.
- DOT will also renovate Tri-Menands bridge at 378 – Village wants to look at wetland areas and drainage to river, to ensure that connection between 787 and 378 do not negatively impact drainage. Instead, hoping that these projects can improve drainage. Partnerships with DOT, DEC, FEMA, Army Corps of Engineers
- Impact fees – The Village will explore impact fees in the future, especially stormwater requirements & paying for stormwater reviews, culvert inspections, etc. to ensure that expense will be borne by property owner not Village. The Village is currently working with LaBella, mirroring Town of Colonie which has a stormwater maintenance fund.
- All streams & culverts on private property cannot be taken care of by the Village. Getting all the streams and culverts cleared out would be desirable; however, there is an issue of liability when Village clears out creeks/culverts.

Additional strategies to expand and improve hazard mitigation capabilities are detailed in Section 10 of the main body of the HMP.

3.2 Integration of Planning Efforts

The Village of Menands understands the importance of considering an integrated approach when developing municipal plans, policies, programs, and regulations. The Village intends to reference the 2024 Albany County HMP as part of the process for future updates to the plans, policies, programs, and regulations listed in Table 3-1, above, and for creating new regulations as applicable. This may include adding hazard mitigation as an agenda item at Village Board meetings where local laws are being developed or updated, including hazard mitigation considerations in any templates used to make new laws, adopting an ordinance that all new local laws need to consider hazard mitigation if applicable, or simply making local officials aware of the need to consider hazard mitigation in any plan updates. Additionally, the Village of Menands may use the local laws assessment (included in Section 4 of the main body of the HMP) to reference hazard mitigation related regulations that other jurisdictions in

the County have adopted, and consider implementing similar regulations if desired. All these actions will help expand and improve upon these existing capabilities so that they reduce risk and better support hazard mitigation.

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4 HAZARD IDENTIFICATION AND RISK ASSESSMENT

4.1 Profiled Hazards

In this HMP Update, the County reviewed multiple natural hazards, and determined to profile five natural hazards: flooding, severe storm, drought, extreme temperatures, and landslide. Descriptions of each of these hazards are included in Section 6 of the main body of the HMP.

The Village of Menands has chosen to profile the same hazards as the County. No hazards were omitted and there were no additional hazards identified as unique and specific to the Village.

The hazard analysis criteria used to evaluate the Village's vulnerability to each natural hazard are summarized in Table 4-1, and the results are presented in Table 4-2. All rankings were completed subjectively, with the guidelines detailed in Table 4-1.

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Table 4-1. Hazard Analysis Criteria

Score	Impact (Damage to property, crops, people)	Frequency*	Extent	Level of Preparedness	Total Score	Overall Vulnerability
1	Minor	Rare	One or two problem areas within the jurisdiction	Well Prepared	4 to 5	Low
2	Moderate	Infrequent	A significant portion of the jurisdiction	Moderately Prepared	6 to 8	Moderate
3	Major	Regular	The entire jurisdiction	Not Prepared	9 to 12	High

*Frequency is defined roughly as follows:

- Rare – Every 15 years or less
- Infrequent: Less than once a year but greater than once every 15 years
- Regular: Approximately yearly or multiple times a year

Table 4-2. Hazard Vulnerability by Event*

Hazard Event	Impact (Damage to property, crops, people, etc.)	Frequency of Occurrence	Extent of Impacts	Level of Preparedness	Overall Vulnerability	Jurisdiction Rank	Notes (Anticipated Future Changes)
Flooding (Riverine, Coastal, Urban, Flash, Ice Jam, Dam or Levee Break, Other)	2	2	2	2	8 – Moderate	2	All new buildings meet storm sewer regulations. Concerned about climate change making floods and storms worse.
Drought	1	1	3	2	7 – Moderate	4	See below

Hazard Event	Impact (Damage to property, crops, people, etc.)	Frequency of Occurrence	Extent of Impacts	Level of Preparedness	Overall Vulnerability	Jurisdiction Rank	Notes (Anticipated Future Changes)
Severe Storm (Hail, Ice Storms, Wind, Thunderstorms and Lightning, Winter Storms, Hurricane, Tropical Storms, Tornado, Power Outage)	3	2	3	1	9 – High	1	Concerned about climate change making floods and storms worse.
Extreme Temperatures (Cold Wave, Heat Wave, Air Pollution Effects)	2	2	3	1	8 – Moderate	3	See below
Landslide	1	1	1	2	5 – Low	5	See below

**Note: Coastal Flooding includes impacts from sea level rise.*

4.2 Hazard Event History

A complete history of natural hazard events within the County – based on NOAA’s Severe Storm Database – is included in Section 6 of the main body of the HMP. The following is a subset of events that occurred specifically within the Village. These records informed the development of mitigation actions by demonstrating which hazards have historically had the greatest impact on the Village.

Table 4-3. Hazard Event Records, 2018-2023

Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm/Wind	7/27/2018	50	0	0
Thunderstorm/Wind	8/7/2019	50	0	0
Thunderstorm/Wind	8/16/2019	50	0	0
Thunderstorm/Wind	8/16/2019	70	0	0
Flood	12/25/2020	-	0	0
Total			0	0

Note: The table above lists only the hazard events that were recorded as occurring specifically within the Village. For records of County-wide hazard events, see the Albany County Annex. Units for magnitude for Thunderstorm/Wind are expressed in knots.

4.3 Floodplain Statistics

Key water features in the Village are described in Section 2.2 of this annex. FEMA provides flood insurance rate maps for the municipality and GIS data on the spatial location of floodplains. The 1% annual chance (100-year) flood event area generally corresponds with areas that are at high risk of flooding, and the 0.2% annual chance (500-year) flood event area generally corresponds with areas that are at moderate risk of flooding. Out of the 3.3 square miles in the Village, approximately 33.44% are located within the 1% annual chance flood event area and approximately 39.75% are located within 0.2% annual chance flood event area (inclusive of the 1% flood event area). The estimated number and structure value of parcels in the municipality that intersect mapped floodplains are summarized in Table 4-5. There are 144 parcels in the Village located within the 1% annual chance flood event area, with an estimated total structure value of \$74,650,069. Inclusive of these parcels in the 1% annual chance flood event area, there are 192 parcels in the Village located within the 0.2% annual chance flood event area, with an estimated total structure value of \$86,164,369.

Table 4-4. Summary of Areas in Floodplains*

Total Area (square miles)	Percent of Total Area in 1% Annual Chance Floodplain	Percent of Total Area in 0.2% Annual Chance Floodplain
3.3	33.44%	39.75%

* Calculated areas and percentages are informational estimates only and are not to be used for official purposes. The 0.2% annual chance floodplain in this table includes the area in the 1% annual chance floodplain.

Table 4-5. Estimated Number and Structure Value of Parcels within Mapped Floodplains

Property Class	Number of Parcels in 1% Annual Chance Floodplain	Approx. Structure Value* in 1% Annual Chance Floodplain	Number of Parcels in 0.2% Annual Chance Floodplain**	Approx. Structure Value* in 0.2% Annual Chance Floodplain**
Unclassified	0	\$0	0	\$0
Agricultural	0	\$0	0	\$0
Residential	67	\$5,011,800	98	\$6,964,800
Vacant	26	\$117,500	30	\$119,500
Commercial	26	\$28,255,600	38	\$37,724,600
Recreation and Entertainment	0	\$0	0	\$0
Community Services	10	\$3,681,800	11	\$3,772,100
Industrial	2	\$1,483,000	2	\$1,483,000
Public Services	13	\$36,100,369	13	\$36,100,369
Parks and Open Space	0	\$0	0	\$0
Total	144	\$74,650,069	192	\$86,164,369

*Structure Value for each parcel was estimated by subtracting Land Assessed Value from Total Assessed Value. If the entire parcel or a subset of the parcel was contained within the floodplain, the structure on that parcel was included regardless of the structure's location on the parcel.

** The 0.2% Annual Chance Floodplain in this table includes the area in the 1% Annual Chance Floodplain.

4.4 National Flood Insurance Program

Long-term mitigation of potential flood impacts can be best achieved through comprehensive floodplain management regulations and enforcement at a local level.

The National Flood Insurance Program (NFIP), regulated by FEMA, aims to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages local jurisdictions to adopt and enforce floodplain management regulations to mitigate the potential effects of flooding on new and existing infrastructure (<https://www.fema.gov/flood-insurance>).

Communities that participate in the NFIP adopt floodplain ordinances. If an insured structure incurs damage costs that are over 50% of its market value, the owner must comply with the local floodplain regulations when repairing or rebuilding the structure. A structure could be rebuilt at a higher elevation, or it could be acquired and demolished by the municipality or relocated outside of the floodplain. Insured structures that are located within floodplains identified on FEMA's Flood Insurance Rate Maps (FIRMs) may receive payments for structure and content losses if impacted by a flood event.

The NFIP and other flood mitigation actions are important for the protection of public and private property and public safety. Flood mitigation is valuable to communities because it:

1. Creates safer environments by reducing loss of life and decreasing property damage;
2. Allows individuals to minimize post-flood disaster disruptions and to recover quicker (homes built to NFIP standards generally experience less damage from flood events, and when damage does occur, the flood insurance program protects the homeowner's investment); and
3. Lessens the financial impacts on individuals, communities, and other involved parties (<https://www.fema.gov/flood-insurance>).

The Village of Menands currently participates in the NFIP (community ID 360012A), and its current FIRM(s) became effective on 3/15/16. FIRMs are available via FEMA's Flood Map Service Center (<https://msc.fema.gov/portal/home>). Digital FIRM data is also available for Albany County via FEMA's National Flood Hazard Layer Viewer, which was referenced during the development of this annex. Information from this digital FIRM data was incorporated into this Hazard Mitigation Plan where appropriate (for example, when identifying which critical facilities are in the floodplain).

The Village's local law governing floodplain development and NFIP compliance is in Chapter 93: Flood Damage Prevention. The Village will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in special flood hazard areas, among other required duties. Staff capabilities to implement the NFIP and local floodplain regulations are listed in Table 3-1 of this annex.

According to NFIP claims data provided by FEMA, there is one (1) repetitive loss property in the Village of Menands. Repetitive loss properties are properties that have had at least two paid flood losses of more than \$1,000 each in any 10-year period since 1978.

4.5 Considerations for Future Hazards

The Village also considered future changes in hazards due to climate change, population changes, land use, and other factors. They were particularly concerned about climate change making storms and floods worse. These concerns were taken into consideration when developing the mitigation strategy. The effects of climate change and other factors on future hazard events in Albany County are covered in more detail in Section 6 of the main body of the HMP.

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5 ASSETS AND VULNERABILITIES

5.1 Critical Facilities

FEMA defines a critical facility as one that provides services and functions essential to a community, especially during and after a disaster. Critical facilities should remain accessible and functional before, during and after disasters. Additionally, critical facilities include those that requires a special emergency response in the event of hazardous incidents, such as buildings that store hazardous materials. Examples of critical facilities include community lifelines, such as fire departments, EMS services, police stations, water and wastewater services, medical facilities, highway garages, and hazardous materials. They also include facilities such as Town halls, schools, and senior centers. In the hazard mitigation planning process, each jurisdiction ultimately decided which facilities they consider to be critical facilities for their community.

Table 5-1 denotes the name, type, and location of the critical facilities within the Village of Menands, and any vulnerabilities of note. More information about hazard vulnerability, including the vulnerability of community assets to natural hazard events, is included in Section 8 of the main body of the HMP. Additional vulnerabilities by location are assessed in the HAZUS analysis, included in the appendices of the HMP.

Table 5-1. Critical Facilities*

[Table redacted due to sensitive content]

Per 2022 NYS Hazard Mitigation Planning Standards, jurisdictions must identify all of their critical facilities, determine the facilities' exposure to a 1% and 0.2% annual chance flood event, and document if the facilities are protected to a 0.2% annual chance flood event or previous worst case flood event (whichever is greater). For facilities that do not meet this level of protection, the jurisdiction must either include an action to meet or exceed this criterion or explain why it is not feasible to do so.

As indicated in Table 5-1, it is unknown whether several of the Village's critical facilities are protected to a 0.2% annual chance (500-year) flood event or previous worst case flood event (whichever is greater). The Village has included an action in Section 7.2: New Mitigation Actions related to these critical facilities. Section 9 of the main body of the HMP provides additional detail on how the County and local municipalities may assess critical facilities' level of protection to the 1% and 0.2% annual chance flood event.

5.2 High Hazard Potential Dams

According to the NYSDEC Division of Water Bureau and Flood Protection and Dam Safety, there are four hazard classifications of dams in New York State. A High Hazard Potential Dam is a dam located in an area where dam failure may cause loss of human life; serious damage to homes, industrial, or commercial buildings; essential public utilities; main highways or railroads; and will cause extensive economic loss.

The Village of Menands does not have any high hazard potential dams located within the municipal boundaries.

5.3 Additional Jurisdiction/Public Identified Vulnerabilities

In addition to critical facilities, it is important to take a holistic approach to identifying assets in the jurisdiction and how they may be vulnerable to the hazards identified in the HMP. Examples of other assets considered include:

- People (residents, workers, visiting populations, and socially vulnerable populations like seniors, individuals with disabilities, lower-income individuals, etc.)
- Other structures (community centers, historic places, planned capital improvement)
- Economic assets (major employers, primary economic sectors, key infrastructure like telecommunications networks)
- Natural, historic and cultural resources (areas of conservation, beaches, parks, critical habitats)
- Critical facilities and infrastructure (hospitals, law enforcement, water, power)
- Community activities (major local events such as festivals or economic events like farming or fishing)

Aside from critical facilities listed in Table 5-1, the Village of Menands has identified the following additional assets for consideration in hazard mitigation planning:

Additional Assets:

[Information redacted due to sensitive content]

6 SUMMARY OF HAZARD IMPACTS AND VULNERABILITIES

6.1 Flood

The Village of Menands has ranked their overall vulnerability to flood events as moderate, as indicated in Table 4-2. According to Village representatives, flood events occur infrequently in the jurisdiction and affect a significant portion of the jurisdiction, causing moderate damage. The Village feels they are moderately prepared for flood events.

Information on flood event records (Section 4.2 of this annex), high hazard potential dams (Section 5.2), floodplain statistics (Section 4.3), and participation in the NFIP (Section 4.4) are described above, illustrating the impact of flooding on critical facilities and other structures. The Village is particularly concerned about the impacts of flooding between Broadway and the Hudson River, behind Village One Apartments, from a culvert along CP Rail, from creeks and culverts in the Loudonville area (especially near the Menand Road intersection), and on the water department building at 579 Broadway.

Future vulnerability to flood events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Village's future vulnerability to flood events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.2 Severe Storm

The Village of Menands has ranked their overall vulnerability to severe storm events as high, as indicated in Table 4-2. According to Village representatives, severe storms occur infrequently in the jurisdiction and affect the entire jurisdiction, causing major damage. The Village feels they are well prepared for severe storm events.

Records of severe storm events are described in Section 4.2 of this annex. Impacts to the Village from severe storm events include fallen trees from severe winds, which can damage overhead utility lines, resulting in power outages. These events are likely to result in damages to private and public infrastructure and property. In addition, during severe winter storm events, roadway safety is a primary concern and impacts the safety of residents and operation of critical facilities. Damages to the Village's critical infrastructure or primary transportation routes would be particularly impactful to residents. The Village is particularly concerned about the impact of storms (for example, winter storms) on trucks carrying hazardous material on Route 787 and Route 378, especially with the cloverleaf curves along 787. If an accident occurred with one of these trucks due to severe weather, it could endanger the health and safety of residents and travelers.

The Village is currently planning renovations on 250 Broadway, so that it can function as an emergency center, communications center, and shelter during storm events and other hazards.

Future vulnerability to severe storm events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to change the types of severe storm events that the Village is vulnerable to, likely making the Village more vulnerable to severe thunderstorm, windstorm, and hail events and less vulnerable to heavy snow, ice storms, winter storms and winter weather. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.3 Drought

The Village of Menands has ranked their overall vulnerability to drought events as moderate, as indicated in Table 4-2. According to Village representatives, drought events occur rarely in the jurisdiction and affect the entire jurisdiction, causing minor damage. The Village feels they are moderately prepared for drought events.

The Village of Menands is served by a public water supply. This water supply, and certain critical facilities, such as those related to water and wastewater, could be susceptible to impacts during a drought due to low water yields, particularly if a back-up water supply has not been formally established. Additionally, any residents who rely on private wells would also be susceptible to the impacts from a drought due to low water yields.

Future vulnerability to drought events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Village's future vulnerability to drought events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.4 Extreme Temperatures

The Village of Menands has ranked their overall vulnerability to extreme temperature events as moderate, as indicated in Table 4-2. According to Village representatives, extreme temperature events occur infrequently in the jurisdiction and affect the entire jurisdiction, causing moderate damage. The Village feels they are well prepared for extreme temperature events.

Extreme temperature events tend to have greater impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), individuals with health complications, and individuals who cannot afford to sufficiently heat or cool their homes. While there is no Census data available for the Village of Menands, there is Census data available for the Town of Colonie. In the Town of Colonie, approximately 4.8% of the population is under 5 years old, and 21.7% of the population is over 65 years old. Approximately 13.2% of the residents of the Town of Colonie have a disability (excluding any institutionalized residents and active-duty military members) some of whom have health problems that make them more vulnerable to extreme heat or cold. Approximately 8.0% of the Town of Colonie's population is below the poverty level. Many residents within these populations are at a higher risk of being impacted by extreme temperature events. The planned renovations on 250 Broadway will help reduce the impacts of extreme temperatures on residents, by improving the Village's sheltering capacity during extreme temperature events.

Future vulnerability to extreme temperature events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. Climate change is expected to increase the Village's future vulnerability to extreme heat events and decrease its vulnerability to extreme cold events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.5 Landslide

The Village of Menands has ranked their overall vulnerability to landslide events as low, as indicated in Table 4-2. According to Village representatives, landslide events occur rarely in the jurisdiction and affect one or two problem areas within the jurisdiction, causing minor damage. The Village feels they are moderately prepared for landslide events.

Landslides can impact the structural integrity of buildings, roads, and other infrastructure in the Village. They can also impact transportation flow and the provision of supplies, can degrade the natural environment, and have the potential to cause injury and death.

Future vulnerability to landslide events is determined by many factors, such as climate change, land use, and population changes, as well as the implementation of mitigation and adaptation strategies. For example, underlying conditions that impact landslides, such as bedrock stability and heavy rain events, are influenced by climate-related trends, such as temperature increases and extreme precipitation events. These trends are further described in Section 4.1 of this annex and in Section 6 of the main body of the HMP.

6.6 Jurisdictional Priorities

Considering the identified natural hazards, potential impacts, assets, and vulnerabilities identified above, key vulnerabilities and priorities to be addressed in this HMP were identified for the Village.

Top concerns about hazard mitigation in the Village included:

- Flooding along Hudson River, especially between Broadway and the river. The Hudson River is the primary flood risk. Most of village has a wetland between them and river. The area between Broadway and the river is part of floodplain.
- Water diversion from creeks and culverts, especially along Loudonville. Loudonville slopes towards river; water diversion from creeks and culverts (including storm drain system from roadways) is an issue. The Village has had some creek flooding during rainstorms. Additionally, storm culverts overflow near the Menand Rd intersection; this blows off the cover.
- Culvert associated with CP Rail. CP Rail, which runs through village, has a culvert that floods all the streets when it floods. The rail is overgrown and there is gravel under the tracks; this was the impetus for creating the culvert system. However, the culvert is not well maintained.
- Flooding behind Village One Apartments. Village One Apartments has a berm behind property, but the storm sewers in parking lots flow towards the river. When

water gets to berm, water will backflow into the storm sewer & flood. This is private property which adds a challenge to addressing the issue. A backflow on storm drain system would solve the problem. When floods, the Village must bring boats into parking lot to evacuate property, sanitize apartments that are flooded. Village engineer has investigated the issue and has recommended a backflow converter.

The following populations, buildings, or locations were identified as being particularly vulnerable to hazards:

- o Village One Apartments
- o Main pump station next to Village One – this is the main building for water dept (579 Broadway), and is at flood risk
- o Main DPW department is in the flood zone, though has never flooded.

The plan was revised to reflect the following changes in community priorities since the 2018 HMP Update:

- o The Village now has an EOC in the Police department, which has TV cameras, radios, computers, etc. In event of an emergency, all departments can go up there and run it. This EOC was not present in 2018 when the last HMP was created. The Police department will be using this for heating and cooling.

Additional concerns that the Village would like addressed in the plan include:

- o The Village has an upcoming renovation project at 250 Broadway, which will make 250 Broadway the emergency center for residents, and the communication center for village staff and administration. The Village is seeking grant money to ensure that building is accessible, bathrooms up to date, etc. The Village is also seeking to make it a cooling/warming center. Funding opportunities would be great. The building has a generator, which is self-sustaining in a blackout. However, to convert this to a cooling/warming center, the Village would need to maintain the generator, conduct upgrades, conduct windows replacement/upgrades, etc., since this is an old building. ADA compliance is an issue, since the village has a large elderly population; the Village needs enough handicap parking, accessible doors, and an appropriately sized elevator. This building is also the senior center and Village headquarters; therefore, there are also social benefits to making these upgrades.

6.7 Additional Impacts

Additional impacts of the hazards are summarized in the problem descriptions in the Village's past and new mitigation actions, as described in the following sections.

7 MITIGATION STRATEGY AND IMPLEMENTATION

7.1 Past, Completed, and Ongoing Initiatives

The Village had proposed 2 mitigation actions in the 2018 Albany County HMP Update. The status of each action is summarized below, along with the Village’s decision about whether to include the action in the 2024 HMP Update. Any revisions to actions proposed in 2018 are indicated below.

Table 7-1. Status of 2018 Mitigation Actions

Name	Description	Hazard(s) Mitigated	Lead Agency	Status	
				(Completed, In Progress, No Progress, Discontinued)	Carried into 2024 HMP Update? (Yes/No)
Continue rehabilitation of sanitary sewer lines throughout the Village to prevent I&I	Benefit is the lower cost to the Village for sewage treatment. Limiting risk of public health hazard resulting from sanitary sewer discharge. Estimated cost is \$3 million.	Not stated	Village DPW Foreman	In progress (will soon go out to bid to replace all sewer lines in south part of village)	Yes
Mapping infrastructure, water, storm, sewer, and developing a GIS system	More rapid response to service interruption. Estimated cost: \$50,000.	Not stated	Village DPW Foreman	In progress (working with LaBella for GIS system)	Yes

7.2 New Mitigation Actions

In addition to the actions carried over from the 2018 HMP, the Village of Menands identified new mitigation actions for inclusion in the 2024 HMP Update, in conjunction with the project team. First, a list of actions was brainstormed based on the capabilities, hazard identification, impacts, and vulnerabilities described above. This included consideration to the

ways that the Village could expand and improve the identified capabilities to achieve mitigation, as described in Section 3 of this annex. Then, a more comprehensive range of actions were evaluated as described in Section 9 of the main body of the HMP. Finally, actions that tied in most closely with the vulnerabilities identified by the Village were selected for inclusion in the HMP. These actions are included in the table below. (Note that in the table, CF = Critical Facility, EHP = Environmental and Historic Preservation.) The actions also help address climate change in the Village, since many of the hazards profiled in this HMP may be worsened by climate change. The effects of climate change on these hazards are described in Section 4.1 and Section 6 of this annex, as well as in Section 6 of the main body of the HMP.

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Table 7-2. New Mitigation Actions*

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands MH1	CP Rail Hazard Mitigation Partnership	G2, G5, G6	Flood, Severe Storms	There are issues with overgrowth, gravel, maintenance of culverts, and stream maintenance along CP Rail, which runs through the Village. When these culverts flood (which becomes more likely during severe storms), they create flooding issues for the Village. Flooding issues are worsened during severe storm events.	Partner with CP Rail to clean out culverts and streams along the railroad tracks to prevent flooding, as well as to do other necessary maintenance such as deal with overgrowth and gravel.	No	Potentially	1-3 years	DPW	Medium	This action would reduce the risk of flooding that results from culverts and streams along the railroad track. Establishing a partnership would allow this maintenance to continue in the long term, providing long-term flood mitigation benefits. The flood risk reductions would also make severe storms less impactful.	US CDBG-MIT, US HMGP, US Flood Mitigation Assistance, NYS HM RLF, US BRIC, DOT BIL Grants	High
V Menands MH2	Backflow Valve for Village One Apartments	G1, G2, G5, G6	Flood, Severe Storms	Behind Village One Apartments, water sometimes backflows into the storm sewer and floods the parking lot, necessitating an evacuation and sanitation response by the Village. Flooding issues are worsened during severe storm events.	Partner with Village One Apartments to install one-way (backflow) valve to stop flooding. This solution has been already recommended by an engineering investigation.	No	Potentially	1 year	DPW	Low	This action would reduce the flooding that occurs in the Village One Apartments parking lot. The flood risk reductions would also make severe storms less impactful.	US Flood Mitigation Assistance, NYS HM RLF, NYS CWSRF	High

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands MH3	Broadway Flood Mitigation Strategy	G1, G2, G3, G4, G5, G6	Flood, Severe Storms	Several areas along Broadway are at a significant flood risk. This risk is exacerbated during severe storms. Flooding issues are worsened during severe storm events.	Work with Albany County to pursue flood mitigation projects along Broadway, as outlined in Albany County's Climate Resiliency Plan (page 178) and as deemed necessary by the Village. This may include, but is not limited to, evaluating and/or incorporating green infrastructure, bike infrastructure, dedicated bus rapid transit lanes, integration with ongoing projects, flood mitigation along Patroon Creek, tree planting, and any other actions deemed necessary for mitigating flooding and other hazards.	No	Potentially	3-5 years	Stormwater Management	Medium	This action would reduce the risk of flooding along Broadway. The flood risk reductions would also make severe storms less impactful.	FEMA BRIC, FEMA HMGP, FEMA FMA, NYS HM RLF, EPA Smart Growth Support, EPA Greening America's Communities, CDBG Public Infrastructure and Community Planning, WQIP, EFC GIGP, DOS Smart Growth, NYS CSC, DASNY State and Municipal Facilities Program, NYSDOT CHIPS, NYSEFC CWSRF	Medium
V Menands MH4	Vacuum Truck and Associated Equipment	G1, G2, G5, G6	Flood, Severe Storms	There are several flood problem areas in the Village, including along Broadway, in and near Loudonville, and between Broadway and the Hudson River. In particular, the pump station on 579 Broadway is at risk of flooding (both riverine and flash flooding), and the main DPW department is in the flood zone. The Village sometimes borrows a vac truck from the Town of Colonie, but there can be delays with borrowing the truck and competing priorities with other municipalities. The flood risk is worsened during severe storms.	Purchase a vacuum truck and trailer to clean out culverts & sanitary sewers to prevent flooding, and to assist with water main breaks.	No	Potentially	1-3 years	DPW	High	Having this equipment would help to prevent flooding by ensuring the Village has the ability to take the necessary maintenance steps in a timely manner. The equipment would also be useful during emergencies.	US CDBG-MIT, US HMGP, US Flood Mitigation Assistance, NYS HM RLF, US BRIC, DOT BIL Grants, NYS EFC WIIA, NYS CWSRF	Medium

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands MH5	Flood Mitigation Study and Implementation Plan	G2, G5, G6	Flood, Severe Storms	There are several flood problem areas and facilities at risk in the Village as listed above. The flood risk is worsened during severe storms.	Conduct a study to explore and implement additional methods to protect the pump station at 579 Broadway, as well as other facilities and areas that are at risk of flooding in the Village, such as the main DPW department, in and near Loudonville, and between Broadway and the Hudson River. Methods could include, but are not limited to, partnering with DOT for larger storm sewers, implementing a maintenance plan for culverts, partnering with the NYS DOT on beaver dam control, and continuing partnerships with the DOT on bridge reconstruction.	Yes	Potentially	3-5 years	DPW, Stormwater Management	Medium	This action would help identify the most appropriate solutions for mitigating flood risk in problem areas in the Village, including protecting critical facilities.	FEMA BRIC, FEMA HMGP, FEMA FMA, NYS HM RLF, EPA Smart Growth Support, CDBG Public Infrastructure and Community Planning, DOS Smart Growth, NYS CSC, DASNY State and Municipal Facilities Program, NYSDOT CHIPS, NYSEFC CWSRF	High
V Menands MH6	Private Property Flood and Storm Mitigation	G6	Flood, Severe Storms	Many streams and culverts on private property need mitigation work done in order to reduce flooding (which is exacerbated during severe storms). Often, private property owners will request this work to be done. However, there is a potential liability issue with the Village doing work on private property.	Establish legal agreements with willing property owners allowing the municipality or its contractors limited access to private property for maintenance purposes. These agreements should clearly outline the scope of work, responsibilities, and liabilities to protect both parties.	No	Potentially	3-5 years	DPW, Stormwater Management	Medium	This action would reduce the risk of flooding and the impact of storm events due to stream and culvert issues on private property.	US CDBG-MIT, US HMGP, US Flood Mitigation Assistance, NYS HM RLF, US BRIC	Medium
V Menands MH7	Impact Fees for Hazard Mitigation	G5, G6	Flood, Severe Storm	The costs of some necessary hazard mitigation activities, such as compliance with stormwater requirements, paying for stormwater reviews, and culvert inspections, can add up. If the Village is responsible for these costs, it limits the Village's ability to implement these activities.	Work with LaBella or other partners to explore impact fees, to ensure that certain hazard mitigation expenses would be borne by the property owner or developer rather than the Village. These expenses may include, but are not limited to, compliance with stormwater requirements, paying for stormwater reviews, conducting culvert inspections, and more.	No	No	1-3 years	Village Office / Clerk	Low	This action would increase the amount of hazard mitigation activities that are implemented in relation to private property, especially regarding floods and severe storms.	FEMA BRIC, FEMA HMGP, FEMA FMA, NYS HM RLF, EPA Smart Growth Support, CDBG Public Infrastructure and Community Planning, DOS Smart Growth, NYS CSC	High

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands S1	Cloverleaf Curve and Road Safety Plan	G1, G6	Severe Storm	Cloverleaf curves and interchanges in and near the Village present a slip risk, especially during severe winter storms. This also presents a risk to the Village of exposure to hazardous materials, as the Village receives significant thru-traffic carrying hazardous material, especially on Routes 787 and 378.	Partner with DOT to reduce cloverleaf curves in the Village, whether through removal/replacement of these curves with other traffic patterns, or other measures. Assess and implement additional safety measures for these curves and other roadways as desired.	No	Potentially	3-5 years	DPW	High	This action would reduce the safety risk that severe storms pose to traffic in the Village. It would also reduce the risk of toxic waste spills.	FEMA BRIC, FEMA HMGP, NYS HM RLF, DOT CHIPS, DOT SS4A, DOT HSIP, DOT BIL Grants, NYS CDBG Public Infrastructure	Medium
V Menands MH8	Facility Upgrades at 250 Broadway	G1, G5, G6	Extreme Temperatures, Severe Storms	The Village would like the facility at 250 Broadway to become an emergency sheltering facility and warming/cooling center for residents, and to become a communication/operations center for Village staff and administration during emergencies. This would be especially helpful during severe storms and extreme temperature events. However, the building currently lacks ADA-compliant accessibility measures (such as ADA-compliant parking, up-to-date bathrooms, accessible doors, and an appropriately-sized elevator). This is a problem because there is a large elderly population in the Village. Additionally, the generator needs maintenance, and the building itself is in need of upgrades in order to become safe and weather-resistant.	Implement upgrades to the facility at 250 Broadway, which could include, but is not limited to: <ul style="list-style-type: none"> - Maintenance and/or upgrades to the generator - Building upgrades, including the windows, to make the building safe and weather-resistant - ADA-compliance measures such as accessible parking spaces, push buttons on doors, up-to-date bathrooms, an appropriately-sized elevator for wheelchairs, and more. 	Yes	Potentially	3-5 years	Building Department	High	This action would increase the Village's sheltering capacity during extreme temperatures and severe storms. It would also add social benefits (increasing resilience through social connections) because the building is currently also the senior center and Village headquarters.	DASNY State and Municipal Facilities Program, US HMGP, US BRIC, US CDBG-MIT, NYS HM RLF, NYS CSC, FEMA EOC Grant Program	Medium

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands MH9	Open Space Preservation Plan	G3, G6	Landslide, Flood	The Village experiences flooding in several problem areas as listed above, as well as erosion in several areas. These problem areas could be reduced through natural areas designed for flood and landslide mitigation.	Implement an open space preservation plan. This plan may include improvements to the park that abuts Broadway (Polks Park), the creation of a rain garden area & natural habitat, improvements to the berm (such as planting wetland plants to help absorb water), a dog park to build public support for these hazard mitigation activities, and/or other actions.	No	Potentially	3-5 years	Village Office / Clerk	Medium	This action will increase the flood and landslide mitigation capabilities of natural areas, by stabilizing the soil and reducing stormwater runoff. It will also shield the park from noise that comes from Broadway.	BRIC, FMA, HMGP, USFWS NCWCG, NFWF NCRF, EPA's Greening America's Communities program, EPA EFC GIGP, NYS DOS Smart Growth program, USGS Landslides Hazards Program, Hudson River Estuary Program, NYS EPF, Hudson River Estuary Program	Medium
V Menands L1	Knuckles Creek Landslide and Erosion Strategy	G3, G6	Landslide	Knuckles Creek has experienced some erosion, which can increase the risk of landslides. However, the problem area is on private property.	Explore the potential to partner with private landowners to address erosion on Knuckles Creek. This may include, but is not limited to, legal agreements with willing property owners allowing the municipality or its contractors limited access to the property for maintenance purposes.	No	Potentially	1-3 years	DPW, Stormwater Management	Medium	This action would reduce the landslide risk for properties near Knuckles Creek.	BRIC, FMA, HMGP, USFWS NCWCG, NFWF NCRF, EPA's Greening America's Communities program, EPA EFC GIGP, NYS DOS Smart Growth program, NRCS Conservation Innovation Grants, Hudson River Estuary Program, Coastal and Marine Habitat Restoration Grants	Medium
V Menands S1	Snowstorm Mitigation Strategy	G1, G2, G5, G6	Severe Storms	Currently, there is no place to put excess snow when very heavy snowfalls occur. DPW assists, and intermunicipal agreements exist, but other municipalities are tied down as well.	Implement increased staffing and the purchase of equipment to move excess snow during heavy snowfalls, as funding allows.	No	No	1-3 years	DPW	High	This action would reduce the impact of severe snowstorms on Village safety and transportation.	US HMGP, US BRIC, NYS HM RLF, FEMA EMPG, DOT SS4A, DOT HSIP	Medium

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands D1	Drought Education Program	G1, G3, G6	Drought	Not all residents are aware of water-saving techniques, which can make droughts have a larger effect on reservoir levels.	Invite experts to give an educational talk, series of talks, or other information about water saving techniques (e.g. settings on sprinkler systems). Examples of invited experts may include the local SWCD or Cornell Cooperative Extension.	No	No	1 year	Fire Department	Low	Residents would be equipped to implement behavioral and operational changes that conserve water and reduce the overall impact of drought.	US HMGP, US BRIC, CRF, EPA EJSG, US CDBG-MIT, NYS HM RLF, FEMA EMPG, WaterSMART Drought Response Program	High
V Menands D2	Automatic Meter Upgrades	G2, G3, G6	Drought	Old water meters in the Village need replacing, as they often under-report how much water is being used. This puts the Village at a greater risk of drought. However, these water meters can cost upwards of \$30K, presenting a barrier to businesses to implement these meters. Additionally, the Village does not receive radioed meter information from some businesses in the Village.	Acquire funding for automatic metering for businesses, to help them to upgrade meters. Then partner with these businesses on meter upgrades. Additionally, as necessary, acquire funding for additional or upgraded radio or communications equipment to receive information from an expanded network of water meters.	No	Potentially	3-5 years	DPW	High	This action would enable the Village to more readily detect and take action to stop leaks, thereby reducing the impact of drought.	US HMGP, US BRIC, CRF, EPA EJSG, US CDBG-MIT, NYS HM RLF, FEMA EMPG, WaterSMART Drought Response Program	Medium
V Menands F1	Vulnerability Assessment and Flood Protection for Critical Facilities	G1, G2, G5, G6	Flood, Severe Storms	Some of the Village's critical facilities may not be protected against the 0.2% chance flood event or previous worst case flood event. This leaves these facilities vulnerable to becoming inoperable during flood events.	Conduct vulnerability assessments for the critical facilities identified in the Village's annex to this HMP update, to determine their level of protection against a 0.2% chance flood event (or previous worst case flood, if greater than the 0.2% chance flood), where unknown. If/when funding is available, protect any unprotected facilities to an 0.2% chance flood event (or previous worst case flood event, if applicable), through engineering design, building retrofits, or other measures, as necessary and feasible. These facilities are identified in Table 5-1 of the jurisdictional annex.	Yes	Potentially	3-5 years	Building Department	High	This action would reduce the vulnerability of critical facilities to flood events.	DASNY State and Municipal Facilities Program, US HMGP, US BRIC, US Flood Mitigation Assistance, US HUD CDBG-MIT, NYS HM RLF, NYS CSC, FEMA EOC Grant Program	Medium

Project #	Project Name	Goal/Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	Related to CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority
V Menands MH10	Increase Resilience at Municipal Facilities and Key Assets	G1, G2, G5, G6	Multiple Hazards (Flood, Severe Storm, Extreme Temperatures)	According to Albany County's Climate Resiliency Plan, several municipal facilities throughout the County are vulnerable to natural hazards such as flooding, severe storms, extreme temperatures, landslides, and droughts, especially older buildings and buildings that serve vulnerable populations. Some facilities in the Village of Menands may fall into this category.	Partner with Albany County to assess additional opportunities to increase resilience at critical facilities and other key assets. This may include, but is not limited to, action items detailed in the Albany County Climate Resiliency Plan page 180-197, such as: 1) Assess municipal buildings for resilient retrofit opportunities, 2) Assess municipal properties for resilient site improvements, and 3) Assess climate risks and identify proactive solutions for climate resilience at a local level. Particular facilities of interest may include, but are not limited to, the ones listed in the Climate Resiliency Plan (Chapter 3 and pages 180-197), as well as the ones listed in the Critical Facilities section of the jurisdictional annex.	Yes	Potentially	3-5 years	Building Department	High	This action would reduce the vulnerability of the community's critical facilities to natural hazards including storms, floods, and extreme temperatures.	DASNY State and Municipal Facilities Program, US HMGP, US BRIC, US Flood Mitigation Assistance, US HUD CDBG-MIT, NYS HM RLF, NYS CSC, FEMA EOC Grant Program	Medium

*Note: CF = Critical Facility, EHP = Environmental and Historic Preservation.

7.3 Mitigation Action Prioritization

Each of the Village's proposed mitigation actions were evaluated and prioritized according to the criteria listed in Section 9 of the main body of the HMP. This includes a cost-benefit review of the proposed actions. The results are included in Table 7-3.

Table 7-3. New Mitigation Action Prioritization

Mitigation Action ID	Mitigation Action Name	Ability to Increase Resilience	Economic Feasibility	Low Environmental Impact	Ability to Implement	Total Score	Priority
V Menands MH1	CP Rail Hazard Mitigation Partnership	3	2	3	2	10	High
V Menands MH2	Backflow Valve for Village One Apartments	3	3	3	3	12	High
V Menands MH3	Broadway Flood Mitigation Strategy	2	2	3	2	9	Medium
V Menands MH4	Vacuum Truck and Associated Equipment	2	1	2	2	7	Medium
V Menands MH5	Flood Mitigation Study and Implementation Plan	3	2	3	2	10	High
V Menands MH6	Private Property Flood and Storm Mitigation	3	2	2	2	9	Medium
V Menands MH7	Impact Fees for Hazard Mitigation	2	3	3	2	10	High
V Menands S1	Cloverleaf Curve and Road Safety Plan	3	1	2	2	8	Medium
V Menands MH8	Facility Upgrades at 250 Broadway	3	1	2	3	9	Medium
V Menands MH9	Open Space Preservation Plan	2	2	3	2	9	Medium
V Menands L1	Knuckles Creek Landslide and Erosion Strategy	3	2	2	2	9	Medium
V Menands S1	Snowstorm Mitigation Strategy	2	1	2	2	7	Medium
V Menands D1	Drought Education Program	2	3	3	3	11	High
V Menands D2	Automatic Meter Upgrades	2	1	3	2	8	Medium
V Menands F1	Vulnerability Assessment and Flood Protection for Critical Facilities	2	1	2	2	7	Medium
V Menands MH10	Increase Resilience at Municipal Facilities and Key Assets	2	1	2	2	7	Medium

Note: Feasibility/effectiveness is rated as follows: 1 = Poor, 2 = Moderate, 3 = Good. Priority is determined as follows based on total score: 4-6 = Low, 7-9 = Medium, 10-12 = High.

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7.4 Mitigation Action Implementation and Administration

The Village's new mitigation actions will be implemented and administered via the lead agencies listed in Table 7-2 of this annex, using the timeframes, prioritization, and funding sources in Sections 7.2 and 7.3 as a guide. Further details about implementation of mitigation actions for all jurisdictions in Albany County, as well as a description of funding sources, are described in Sections 9 and 10 of the main body of the HMP.

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8 ADDITIONAL PUBLIC INVOLVEMENT

Public input was solicited to guide the development of the HMP through two public information meetings and a community survey. A summary of the findings of these outreach activities can be found in Section 3 of the main body of the HMP. The Village of Menands may continue to seek public participation in hazard mitigation planning after HMP approval by including discussion of the HMP as an agenda item at public Village Board meetings and by offering opportunities for members of the public to participate in the implementation of relevant mitigation actions.

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