

9.3 Village of Cayuga Heights

This section presents the jurisdictional annex for the Village of Cayuga Heights. 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 Village of Cayuga Heights and who in the Village participated in the planning process; an assessment of the Village of Cayuga Heights’s risk and vulnerability; the different capabilities utilized in the Village ; and an action plan that will be implemented to achieve a more resilient community.

9.3.1 Hazard Mitigation Planning Team

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

Table 9.3-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Brent Cross, Village Engineer Address: 836 Hanshaw Road Ithaca, NY 14850 Phone Number: (607) 257-5536 Email: bcross@cayuga-heights.ny.us	Name/Title: Jerry Wright, Police Chief Address: 836 Hanshaw Road Ithaca, NY 14850 Phone Number (607) 257-1011 Email: jwright@cayuga-heights.ny.us
NFIP Floodplain Administrator	
Name/Title: Brent Cross Address: 836 Hanshaw Road Ithaca, NY 14850 Phone Number: (607) 257-5536 Email: bcross@cayuga-heights.ny.us	

9.3.2 Municipal Profile

The Village of Cayuga Heights is one of 5 villages in Tompkins County, New York. It is located within the Town of Ithaca, bordered on the South by the City of Ithaca, and to the North by the Village of Lansing. Cayuga Heights overlooks Cornell University and Cayuga Lake. The Village encompasses 1.77 square miles, consisting mostly of single-family residences. Twenty percent of the Village’s area is classified as vegetative cover. New York State Route 13 crosses the Village’s northwest corner. The land is mostly steep hills and gorges and contains two Unique Natural Area (UNA) sites. A small portion of the Village, the Cornell Heights District, is designated on the National Register of Historic Districts.

The Village of Cayuga Heights was founded in 1901, and the first Village streets and neighborhoods were laid out between the 1900s and 1930s. Officially incorporated in 1915, it was designed as a residential neighborhood to serve the businesses of Ithaca and Cornell University families. In the 1950s, the Village



established its own wastewater treatment plant, and since has maintained independent sewer and public services (road maintenance, snow plowing, fire, and police departments) from the Town of Ithaca.

A defining Village element, the Community Corners commercial district, was developed in the 1940s and provides a variety of retail shopping opportunities, including a gas station and convenience store as well as office buildings. There is an intentional lack of industrial development in the Village.

Cayuga Heights is governed by an elected Mayor, and a six-person Board of Trustees. The Mayor oversees the Village staff, made up of the Clerk and Deputy Clerk, the Treasurer, the Superintendent and Assistant Superintendent of Public Works, eight Public Works Department employees, the Fire Chief, the Chief of Police and fourteen full- and part-time Police officers, and two Police Clerks. Mayoral and trustee positions are filled for two-year terms with Village elections held in March annually. Three of the six trustees are elected each year. Village staff and board and commission memberships are mayoral appointments approved by the Board of Trustees and or civil servants.

According to 2014-2018 American Community Survey, the Village of Cayuga Heights has a population of 3,674.

9.3.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.3-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.3-1 at the end of this annex illustrates the geographically delineated hazard areas and the location of potential new development, where available.

Table 9.3-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	0	NA	1	NA	0	NA	1	NA	1	NA
Multi-Family	0	NA	0	NA	0	NA	0	NA	0	NA
Other (commercial, mixed-use, etc.)	0	NA	0	NA	0	NA	0	NA	0	NA
Total	0	NA	1	NA	0	NA	1	NA	1	NA
Property or Development Name	Type of Development	# of Units / Structures			Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development	
Recent Major Development and Infrastructure from 2014 to Present										



Type of Development	2014	2015	2016	2017	2018
Kendall Extension	Senior Dwellings/ Office space	1	2230 North Triphammer Rd.	No	Completed 2018
Cayuga Medical Office Building	Medical Facility	1	905 Hanshaw Road	No	Completed, 2018-19
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
Upland Estates	mixed use development	3	Upland Road	No	Planning Phase
Wastewater Treatment Upgrade and raise	Municipal Works	1	951 East Shore Drive	No	Under Construction. Phase 1 will end in 2020, Phase II 2021
Safe Routes to School Project	Municipal Works	1	Klein Road to Highschool	No	Anticipated Construction 2021
Culvert Rightsizing	Municipal Works	Multiple	Various Locations along Cayuga Heights Road		Construction in 2021

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified. The Village has no mapped Floodplains within the municipal boundaries.

9.3.4 Capability Assessment

The Village of Cayuga Heights performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 5 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of planning, legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

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, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan



integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.3.4). The Village of Cayuga Heights identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. **This is shown in bold text in the comments box where appropriate.** Appendix I provides the results of the planning/policy document review.

9.3.4.1 Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Village of Cayuga Heights and where hazard mitigation has been integrated.

Table 9.3-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
Codes, Ordinances, & Requirements					
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Local Code Department	Yes
<p>Comments: <i>NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017).. Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.</i></p>					
Zoning Code	Yes	2018	Local	Local Zoning Board of Adjustment	No
<p>Comment: <i>Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan"11 or "in accordance with a comprehensive plan."12 Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement. **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level</i></p> <ul style="list-style-type: none"> <i>Chapter 305, Zoning, adopted by the Board of Trustees on 02-06-2018. The intent of this Local Law is to promote and protect the public health, safety, and general welfare in the Village of Cayuga Heights pursuant to the laws of the State of New York and the Village's Comprehensive Plan by classifying and regulating the uses of land and structures within the Village so as to preserve the natural, architectural, cultural, historic, and scenic resources that make the Village a distinctive residential community while also accommodating change.</i> <i>Other purposes include, to: • Secure safety from fire and other dangers • Facilitate the adequate provision of transportation, water, sewage disposal, schools, parks, and other public amenities • Provide standards for orderly development • Ensure compatibility between land uses and protect existing land uses from intrusions by inharmonious or harmful land uses • Prevent the overcrowding of land and undue concentration of population.</i> <i>Where slopes are greater than or equal to fifteen percent (15%) for a minimum run of thirty (30) horizontal feet and a minimum area of five hundred (500) square feet not contained within a riparian buffer, no area with such slope may be developed without site plan approval by the Village's Planning Board in accordance with the procedures set forth in Article 17, which site plan review shall consider whether environmental concerns, including but not limited to soil erosion, sedimentation of waterbodies, increased storm water runoff and flooding potential, and degradation of wildlife habitat, have been adequately addressed and that the disturbance of the steep slope area is necessary for the proposed development.</i> <i>No site plan shall be approved by the Village's Planning Board which provides for construction or other disturbance of land in environmentally sensitive areas, including but not limited to, wetlands, watercourses, steep slopes, unique natural areas, or rare plant or animal habitats, unless the applicant demonstrates with professional evidence reasonably satisfactory to the Planning Board that such construction may occur without significant adverse environmental effects upon such areas.</i> 					



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
<ul style="list-style-type: none"> A vegetative riparian or streamside buffer shall be required for all development activities that occur in proximity to intermittent streams with additional considerations for wetlands and steep slopes. A vegetative riparian or streamside buffer shall be required for all development activities that occur in proximity to intermittent streams with additional considerations for wetlands and steep slopes. <p>*During the next update of the municipal zoning code, the Village will review the HMP and determine how they can incorporate the HMP into the zoning code. By doing so, it will help promote development and redevelopment patterns that are at less risk from known hazards.</p>					
Subdivision Regulations	Yes	Included in zoning 2018	Local	Local Planning Board	No
<p>Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (General city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).</p> <p>*When the Village updates the subdivision regulations, they will review the HMP and consider different ways to integrate the HMP into the regulation. By doing so, it helps the Village encourage new developers to design areas that avoids or minimizes hazards.</p>					
Stormwater Management Regulations	Yes	Title 6, Ch. X, 17-7,8,70	Local	Village Engineer	Yes
<p>Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System (SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department.</p> <ul style="list-style-type: none"> Chapter 235, Stormwater Management, adopted 12-17-2007. This Chapter proposes to achieve the following objectives; A. Meet the requirements of minimum measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from municipal separate stormwater sewer systems (MS4s), Permit no. GP-02-02 or as amended or revised; B. Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities GP-02-01 or as amended or revised; C. Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels; D. Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality. E. Minimize the total volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and F. Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety. The objectives of Part 2 of this Chapter are: A. To meet the requirements of the SPDES General Permit for Stormwater Discharges from MS4s, Permit no. GP-02-02 or as amended or revised; B. To regulate the contribution of pollutants to the MS4 since such systems are not designed to accept, process or discharge non-stormwater wastes; and C. To prohibit illicit connections, activities and discharges to the MS4; <p>*</p>					
Post-Disaster Recovery Plan or Regulation	Yes	Comprehensive Emergency Management Plan	Local	Village	No
<p>Comment:</p>					
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
<p>Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit. *The Village will review the HMP and identify areas of integration that they can incorporate into their real estate disclosure procedures. This can include developing disclosure requirements to have natural hazard related information and include all natural hazards that can impact the Village.</p>					
Growth Management Regulation	No	-	-		No
<p>Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.</p>					
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a, 2018 zoning regs.	Local	Local Planning Board	No
<p>Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc. *When the Village updates the site plan review requirements, they will review the HMP and identify ways, if any, to integrate the HMP into the requirements.</p>					
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Planning Board	Yes
<p>Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019</p>					
Flood Damage Prevention Law	No	Chapter 147, Flood Damage Prevention	-	Code Enforcement Officer	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)
<p>Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> Chapter 147, Flood Damage Prevention. The Board of Trustees of the Village of Cayuga Heights finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Village of Cayuga Heights and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this chapter to; A. Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities; B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; C. Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; D. Control filling, grading, dredging and other development which may increase erosion or flood damages E. Regulate the construction of flood barriers which will unnaturally diver floodwaters or which may increase flood hazards to other lands, and F. Qualify for and maintain participation in the National Flood Insurance Program. The Code Enforcement Officer, hereinafter referred to as the "Local Administrator," is responsible for receiving applications, examining the plans and specifications, and issuing permits for any proposed construction or development. Subdivision review shall ensure that plans are consistent with the need to minimize flood damage within the flood prone area, that all public facilities and utilities are located and constructed to minimize or eliminate flood damage, and adequate drainage is provided to reduce exposure to flood hazards. In passing upon such applications where flooding may be a concern, the Planning Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this local law and; (i) the danger that materials may be swept onto other lands to the injury of others; (ii) the danger to life and property due to flooding or erosion damage; (iii) the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner; and (iv) the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage. 					



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
*The Village's law meets the minimum requirements set by NYS. In the event those requirements are revised, the Village will revise their law to include any revisions.					
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	-	Yes
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required. <ul style="list-style-type: none"> See Stormwater Management Regulations, Part 2 above. 					
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.					
Climate Adaptation	No	-	-	-	Yes
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.					
Disaster Recovery Ordinance	No	-	-	-	No
Comment:					
Disaster Reconstruction Ordinance	No	-	-	-	No
Comment:					
Other Applicable Codes, Ordinances, & Requirements	Yes	Local Stormwater Management Law	Local	Code Dept.	-
Comment:					
Planning Documents					
Comprehensive Plan	Yes	General City Law section 28a(3)(a); Town Law section 272-a(2)(a); Village Law section 7-722(2)(a), 2015	Local	Planning Board	No
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level. <ul style="list-style-type: none"> Village of Cayuga Heights, Comprehensive Plan, adopted 01-13-2014 by the Board of Trustees. The Comprehensive Plan is organized around seven topics identified by the Planning Board as integral to the vitality of the current and future Village and the well-being of its residents: Quality of Life, Community Character, Ecology and Scenic Assets, Economy, Housing, Transportation, and Public Services and Utilities. Plan recommendations include strategies and actions to: Conserve undeveloped open space and environmentally sensitive areas; Safeguard water quality by minimizing stormwater runoff and preserving historic hydrological functions; Develop and implement a plan for the control and management of invasive plants; Manage wildlife species that threaten species diversity and long term landscape ecology; Channel future development from environmentally sensitive undeveloped land to previously developed areas to reduce resource consumption and preserve ecosystems; develop a framework for permanently protecting open spaces adjacent to Renwick Brook and maintaining public access to them; Maintain and upgrade Village fire protection/prevention and police protection as necessary; and Preserve water quality by minimizing urban runoff pollution, erosion and sedimentation, and stormwater discharge. 					



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
*When the Village updates their comprehensive plan, they will review the HMP and identify any opportunities to integrate the HMP into the comprehensive plan. This will help promote consistency between the two plans and encourage multi-objective management and planning in the community.					
Capital Improvement Plan	No	-	-	-	No
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.					
Disaster Debris Management Plan	No	-	-	-	No
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.					
Floodplain or Watershed Plan	Yes	Cayuga Watershed Management Plan	Local	Planning Board Member	No
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.					
Stormwater Plan	Yes	As part of MS4 Requirement; 2012	Local	SWCD	No
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.					
Open Space Plan	No	-	-	-	Yes
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.					
Urban Water Management Plan	No	-	-	-	No
Comment:					
Habitat Conservation Plan	No	-	-	-	No
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.					
Economic Development Plan	No				No
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.					
Shoreline Management Plan	No	Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations	Local	-	Yes
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations					
Community Wildfire Protection Plan	No	-	-	-	No



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.					
Forest Management Plan	No	-	-	-	No
Comment: Have forest manager and forest committee but no plan in place; have tree regulations within zoning					
Transportation Plan	No	-	-	-	No
Comment:					
Agriculture Plan	No	-	-	-	Yes
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.					
Other (tourism, business dev, etc.)	No	-	-	-	-
Comment:					
Response/Recovery Planning					
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B, 2015	Local	Local OEM	Yes
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC). *When the Village updates their CEMP, they will review the HMP and identify any areas that can be integrated. This can include an analysis of the potential hazards to the Village and update goals and objectives to align with the HMP, as necessary.					
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	Local OEM	Yes
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.					
Post-Disaster Recovery Plan	Yes	ERP	Local	-	No
Comment: Comp Emergency Management – Planning Board					
Continuity of Operations Plan	Yes	ERP	Local	-	No
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations. Within Emergency Response Plan					
Public Health Plan	Yes	ERP	Local	Health Dept.	Yes
Comment:					
Other: Emergency Response Plan	No	-	-	-	No
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.					
Other: Special Purpose Ordinances (such as critical or sensitive areas)					
Comment:					



Table 9.3-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No

9.3.4.2 Administrative and Technical Capability

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

Table 9.3-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	Police/ Fire: E News blast/ Crime warning listserv (sign up required)
Maintenance programs to reduce risk	Yes	-
Mutual aid agreements	Yes	Fire/ EMS/ Police: CAD System on County level; Part of TC Shared Services for Public Works
Other: Part of the Tompkins County Stormwater Coalition	Yes	Provides public education and outreach
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Village Engineer
Engineers or professionals trained in building or infrastructure construction practices	Yes	Village Engineer
Planners or engineers with an understanding of natural hazards	Yes	Village Engineer
Staff with expertise or training in benefit/cost analysis	Yes	Village Engineer
Professionals trained in conducting damage assessments	Yes	Village Engineer
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	DPW
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	No	-
Surveyor(s)	No	-
Emergency Manager	Yes	Fire Dept point of contact as EM to assist Police Dept – title: Emergency Coordinator
Grant writer(s)	Yes	Consultant: Templeton – Michelle Palmer
Resilience Officer	No	



Resources	Available? (Yes or No)	Department/ Agency/Position
Other	No	-

9.3.4.3 Fiscal Capability

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

Table 9.3-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	No
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas, or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes- (Consolidated Highway Improvement) CHIPS
Open Space Acquisition funding programs	No
Other	No

9.3.4.4 Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Village of Cayuga Heights.

Table 9.3-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes- Fire Dept – PIO officer
Personnel skilled or trained in website development?	Village Clerk
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes – Eblast and listserv
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes- Public Safety Committee
Warning systems for hazard events; if yes, briefly describe.	Swift 911
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes – police /school educational program/ plan in place
Other: Part of the Tompkins County Stormwater Coalition	Provides public education and outreach materials.



9.3.4.5 Community Classifications

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

Table 9.3-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	Yes	-	2017
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	Class 3	Jan 2017
NYSDEC Climate Smart Community	Yes	Designated	2018
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
	No	-	-

Note:

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

9.3.4.6 Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

Table 9.3-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Disease Outbreak	High
Drought	High
Extreme Temperature	High
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Severe Storm	Medium
Severe Winter Storm	High
Wildfire	High

- *High Capacity exists and is in use
- Medium Capacity may exist; but is not used or could use some improvement
- Low Capacity does not exist or could use substantial improvement



9.3.4.7 National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Name/Title: Brent Cross
Address: 836 Hanshaw Road Ithaca, NY 14850
Phone Number: (607) 257-5536
Email: bcross@cayuga-heights.ny.us

Table 9.3-10. Floodplain Administrator Questionnaire

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> Do you maintain a list of properties that have been damaged by flooding? 	No
Do you maintain a list of property owners interested in flood mitigation? <ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	No
Are any RiskMAP projects currently underway in your jurisdiction? <ul style="list-style-type: none"> If so, state what projects are underway. 	No
How do you make Substantial Damage determinations? <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	Based on input from resident and visible structural damage
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? <ul style="list-style-type: none"> If there are mitigation properties, how were the projects funded? 	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? <ul style="list-style-type: none"> If not, state why. 	No
Resources	
What local department is responsible for floodplain management?	Public Works
Are any certified floodplain managers on staff in your jurisdiction?	No
Do you have access to resources to determine possible future flooding conditions from climate change?	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	Yes – Financial Assistance!



NFIP Topic	Comments
Provide an explanation of NFIP administration services you provide (e.g. permit review, GIS, education/outreach, inspections, engineering capability)	NA – Village located in Zone C
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	NA
What are the barriers to running an effective NFIP program in the community, if any?	NA
Compliance History	
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? • If so, state the violations.	No
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Never
Regulatory	
What is the local law number or municipal code of your flood damage prevention ordinance? • What is the date that your flood damage prevention ordinance was last amended?	None, the village does not have any flood zones.
Does your floodplain management program meet or exceed minimum requirements? • If exceeds, in what ways?	Meets minimum
Are there other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?	Yes – Planning Board does consider flood risk during site plan review
Community Rating System (CRS)	
Does your jurisdiction participate in CRS? • If yes, is your jurisdiction interested in improving its CRS Classification? • If no, is your jurisdiction interested in joining the CRS program?	No – would be interested

9.3.4.8 National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Village of Cayuga Heights.

Table 9.3-11. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties
Village of Cayuga Heights	7	5	\$6,588.85	0	-

Source: FEMA 2020



Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 7, 2020. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.

RL=Repetitive Loss; SRL=Severe Repetitive Loss

9.3.4.9 Additional Areas of Existing Integration

- The municipality prohibits construction of structures within the 100-year floodplain.
- The municipality continues to support retrofitting or relocation of structures located within hazard-prone areas to protect from future damages.
- The municipality maintains compliance and good standing with the NFIP.
- The municipality works to maintain high regulatory standards to manage flood risk in accordance with NYS freeboard requirements.
- The municipality maintains mutual aid agreements with neighboring communities.
- The municipality maintains well and infrastructure elevations to meet current code requirements
- The municipality has a program to remove dangerous trees and promote planting healthy trees, and street tree programs as part of the Community Forest Management Plan
- The municipality works along with County and regional agencies to conduct damage assessments, and with entities that support FEMA/NYSDHSES paperwork after disasters.
- The municipality continues to develop, enhance, and implement existing emergency plans.
- The municipality supports all county-wide and municipal initiatives identified in the HMP.

9.3.4.10 Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes

The Village has identified the following routes to be used in the event of evacuation of the Town.

- North Triphammer Rd.
- Cayuga Heights Rd.

However, evacuation routes are specific to hazard event and routes will vary according to the location of the event. The Village will identify evacuation routes according to procedures outlined in the ESF16 annex of the Tompkins County 2021 CEMP.



Sheltering

The Village has indicated the following as an emergency shelter. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.

- Cayuga Heights Elementary School

Table 9.3-12. Shelter Locations in the Municipality

Shelter Name	Address	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided
Cayuga Heights Elementary School	110 E Upland Rd, Ithaca, NY 14850	500	No	Yes	Yes	None	None

Temporary Housing

The Town has identified the following unofficial/unconfirmed site for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired in the event temporary housing is needed.

Table 9.3-13. Temporary Housing Locations in the Municipality

Site Name	Site Address	Infrastructure / Utilities Available (water, electric, septic, etc.)	Capacity (number of sites)	Type	Actions Required to Ensure Conformance with the NYS Uniform Fire Prevention and Building Code
Kendall Grounds/ Parking Lot	2230 N Triphammer Rd	All	One	Open field/ Parking Lot	Unsure

Permanent Housing

While the Village did not identify potential locations for permanent housing, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Village can utilize this analysis to identify potential locations.

Table 9.3-14. Permanent Housing Locations in the Municipality

Site Name	Site Address	Infrastructure / Utilities Available	Capacity (number of sites)	Type	Actions Required to Ensure Conformance with
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(water, electric, septic, etc.)	the NYS Uniform Fire Prevention and Building Code
Please refer to the County-wide buildable land inventory in Volume 1, Section 4 (County Profile) of this plan.	

9.3.5 Hazard Event History Specific to the Village of Cayuga Heights

Tompkins County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) 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 Cayuga Heights’s history of federally declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Tompkins County. Table 9.3-15 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 9.3-15. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 3, 2014	Heavy Rain and Flash Flooding		Showers and thunderstorms in the area produced torrential downpours. In the County, several roadways were inundated causing approximately \$100,000 in property damage.	While this event impacted the community, due to lack of resources damage history has not been documented
June 14-15, 2015	Heavy Rain and Flash Flood		A tropical-like airmass was in place allowing for a stripe of 2-4 inches of very heavy rain to fall in a narrow band extending from near Watkins Glen to areas north of Binghamton. Severe flash flooding was encountered with numerous roads and culverts destroyed by raging water. In some areas, homes, schools, and other businesses were flooded. In Tompkins County, flooding caused the washout of numerous bridges in the area. The County had approximately \$1.5 million in damages from this event.	While this event impacted the community, due to lack of resources damage history has not been documented



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 14-15, 2017	Severe Winter Storm and Snowstorm (DR-4322)	Yes	Snowfall ranged between 12 and 24 inches in Tompkins County with the highest amounts in the far southeast part of the county.	While this event impacted the community, due to lack of resources damage history has not been documented
July 24, 2017	Heavy Rain and Flash Flooding		Widespread thunderstorms produced three to inches of rain. This led to streams and creeks overflowing their banks and flash flooding in many areas. The County had approximately \$75,000 in property damage.	While this event impacted the community, due to lack of resources damage history has not been documented
October 31- November 1, 2019	Severe Storms, Straight-Line Winds and Flooding (DR-4472)	Yes		While this event impacted the community, due to lack of resources damage history has not been documented

Notes:

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

9.3.6 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 Village of Cayuga Heights’s risk assessment results and data used to determine the hazard ranking.

9.3.6.1 Critical Facilities

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 0.2-percent or 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 (NYS DHSES 2017).



According to HAZUS there are no critical facilities located in hazard zones.

Table 9.3-16. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
No facilities identified				

Source: 2020 GIS

9.3.6.2 Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) 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 jurisdiction may have differing degrees of risk exposure and vulnerability compared to Tompkins 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 Cayuga Heights. The Village of Cayuga Heights has reviewed the Village 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 of Cayuga Heights indicated the following:

- In general, the area does not have any major issues around natural hazards.
- While flood and severe storms are ranked high, it is notable that the Village has adequate resources for emergency response.

Table 9.3-17. Hazard Ranking Input

Hazard	Ranking
Disease Outbreak	Medium
Drought	Medium
Extreme Temperature	Medium
Flood	Medium
Harmful Algal Bloom	Medium
Invasive Species	Medium
Severe Storm	High*
Severe Winter Storm	High
Wildfire	Medium



Note: The scale is based on the following hazard rankings as established in Section 5.3.

*The Village changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the Village of Cayuga Heights.

9.3.6.3 Identified Issues

The Village of Cayuga Heights has identified the following vulnerabilities within their community:

- The Village is fortunate to not have any major hazards of concern. However the Village would like to note of the steep hillside going down towards Cayuga Lake and the Ithaca High School and the erosion occurring from flooding and winter storms.
- The impact of increase in heavy rain events on local drainage systems are an increasing concern. These structures can often be overwhelmed now after heavy rainstorms and flood driveways and basements because street drainage is in adequate. This is made worse when inadequate drainage is not required with new developments and increase in hard scape causes water run off rather than absorption. This ultimately impacts water quality in the Lake.

No information or feedback was provided through the citizen survey for the village of Cayuga Heights.

9.3.7 Mitigation Strategy and Prioritization

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

9.3.7.1 Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2014 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.3-18. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost		
CH1		Flash Flood	Village of Cayuga Heights	Develop strategy for mitigating drainage concerns at Winthrop Drive and Triphammer Road	Have been unsuccessful in getting landowners to participate	-	-	Discontinued; there is no way to pursue due to disagreement between landowners.
						-	-	
						-	-	



9.3.7.2 Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Village of Cayuga Heights has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2014 Plan:

- The Village has been pursuing to become a Climate Smart Community.
- The Village has replaced various culverts to decrease flooding.
- The Village has continued to upgrade technology and infrastructure to increase overall resilience.

9.3.7.3 Proposed Hazard Mitigation Initiatives for the Plan Update

The Village of Cayuga Heights participated in a mitigation action workshop in 2020 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: ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.3-19 summarizes the comprehensive range of specific mitigation initiatives the Village of Cayuga Heights 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 (Mitigation Strategy), 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 9.3-20 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.3-19. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V CAYUGA HEIGHTS -001	Winter Road Hazard Reduction	1, 5	Severe Winter Storms	<p>Problem: The Village is vulnerable to snow events that can impact traffic due to the hilly nature of the municipality.</p> <p>Solution: Conduct a feasibility study to determine how best to reduce overall snow accumulation on steep slopes, and work collaboratively with reducing vegetative cover on steep slope roads and work with the Cornell Local Roads Program to explore potential options to reduce overall snow accumulation on steep slope.</p>	No	No	Medium	Village DPW	Medium	High	Municipal Public Works Budget	High	SIP	SP
2021-V CAYUGA HEIGHTS -002	Emergency Shelter Designation	All Goals	All Hazards	<p>Problem: The Village does not have any designated emergency shelter or temporary housing locations. Current Kendall Senior Housing has been identified as a potential facility for temporary housing, though no discussion or official designation has been made.</p> <p>Solution: The first step would be to identify facilities that could potentially be designated as temporary housing locations. These facilities need to have open space and or a parking lot that has access to backup power if needed. If backup power or essential utilities are lacking, the village would need to develop site to be equipped with necessary equipment and utilities. While the Kendall Senior Facility was previously identified as it has one of</p>	No	No	Long	Village	High	High	Municipal Budget, HMGP	High	SIP	SP



Table 9.3-19. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				the largest open space footprints in the village, further discussion and assessment would need to be conducted, and a negotiation would need to be had between the senior facility and the village.										
2021-V CAYUGA HEIGHTS -003	NFIP repetitive flood property outreach	1	Flood	<p>Problem: There are 2 NFIP repetitive loss properties in the community.</p> <p>Solution: Conduct outreach to flood-prone property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information, and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the areas that experience frequent flooding.</p>	No	No	Medium	Village	Low	High	FMA, HMGP, Municipal Budget	High	EAP	PP
2021-V CAYUGA HEIGHTS -004	HABs partnership program action plan	2,4	HABs	<p>Problem: Cayuga Lake has elevated cases of harmful algal bloom.</p> <p>Solution: While the Village of Cayuga Heights has minimal exposure to the lake, many of its residents move between municipalities and use Cayuga Lake as a recreational facility. Collaborate with neighboring municipalities also along Cayuga Lake such as through the intermunicipal organization to create a Tompkins County-specific response plan to address increasing levels of Harmful Algal Bloom.</p>	No	No	Long	Village with Other municipalities	Low	High	County Funding, Cornell Cooperative Extension and NYSDEC	High	LPR	PR



Table 9.3-19. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2021-V CAYUGA HEIGHTS -005	Climate Smart Communities Certification	All Goals	All Hazards	<p>Problem: The Village of Cayuga Heights is not a certified Climate Smart Community, while many of the surrounding municipalities like the Town of Dryden, Lansing, Ithaca, and Caroline are all designated.</p> <p>Solution: As a designated Climate Smart Community, local governments work to improve community health and safety in the wake of climate change. Many actions under this program are congruent with mitigation goals in the HMP, such as improving regulatory standards to reduce the impacts of flooding and extreme precipitation exacerbated by climate change. Specifically, Element PE7: Enhance community resilience to climate change supports HMP goals such as preserving natural (hazard) areas, performing a vulnerability assessment, and adopting smart growth principles. The Village will work with the Cornell Cooperative Extension, Tompkins County office to work on becoming a bronze climate smart community. This is the first certification in which a community needs at least 120 points based on previous mitigation, climate adaptation, and GHG reduction action completed by the community.</p>	No	No	Medium	Village	Low	High	Municipal Budget, Climate Smart Communities Grant Program.	High	LPR	PR



Notes:

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

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
BRIC	Building Resilient Infrastructure and Communities Program

Timeline:

The time required for completion of the project upon implementation


Cost:

The estimated cost for implementation.

Benefits:

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

Critical Facility:

Yes  Critical Facility located in 1% floodplain

Mitigation Category:

- *Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.*
- *Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.*
- *Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.*
- *Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities*

CRS Category:

- *Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.*
- *Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.*
- *Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.*
- *Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.*
- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*



- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities*



Table 9.3-20. 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
2021-V CAYUGA HEIGHTS-001	Winter Road Hazard Reduction	1	1	1	1	1	0	-1	1	1	1	1	1	1	1	11	High
2021-V CAYUGA HEIGHTS-002	Emergency Shelter Designation	1	1	1	1	1	-1	-1	1	1	0	1	1	1	1	9	High
2021-V CAYUGA HEIGHTS-003	NFIP repetitive flood property outreach	1	1	1	0	1	1	1	1	1	1	1	1	1	1	13	High
2021-V CAYUGA HEIGHTS-004	HABs partnership program action plan	1	1	1	0	1	1	1	1	1	0	0	1	1	1	11	High
2021-V CAYUGA HEIGHTS-005	Climate Smart Communities Certification	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High

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



9.3.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.3-21. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	005	002			005				002	
Drought	005	002			005				002	
Extreme Temperature	005	002			005				002	
Flood	005	002		003	005	003			002	
Harmful Algal Bloom	004; 005	002			004; 005				002	
Invasive Species	005	002			005				002	
Severe Storm	005	002			005				002	
Severe Winter Storm	005	001; 002			005				001; 002	
Wildfire	005	002			005				002	

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

9.3.9 Staff and Local Stakeholder Involvement in Annex Development

The Village of Cayuga Heights 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: Village Engineer, Fire Department, and Police Department. The Village Engineer represented the community on the Village of Cayuga Heights 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.

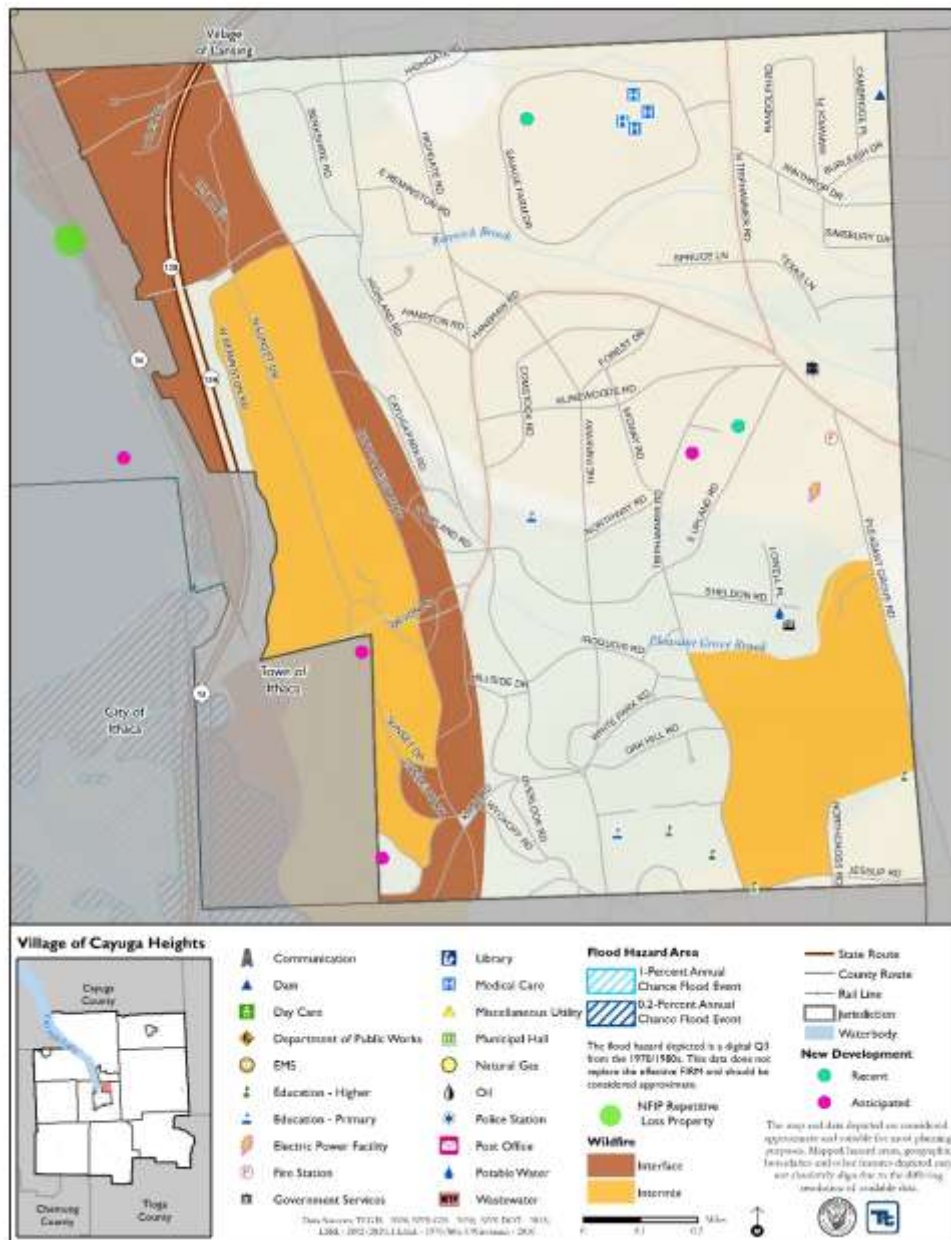
Additional documentation on the Village of Cayuga Heights’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).



9.3.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Village of Cayuga Heights that illustrates the probable areas impacted within the Village of Cayuga Heights. This map is based on the best available data at the time of the preparation of this plan and is considered to be adequate for planning purposes. The map has only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Village of Cayuga Heights has significant exposure. The map is illustrated below.

Figure 9.3-1. Village of Cayuga Heights Hazard Area Extent and Location Map



Action Worksheet			
Project Name:	Winter Road Hazard Reduction Plan		
Project Number:	2021-V CAYUGA HEIGHTS-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Winter Storms.		
Description of the Problem:	The Village is vulnerable to snow events that can impact traffic due to the hilly nature of the municipality. Many of the roads are narrow and are hazardous during the winter, especially for commuters between Cayuga Heights and the City of Ithaca.		
Action or Project Intended for Implementation			
Description of the Solution:	Work with the soil and water conservation district and the Cornell Local Roads program to develop an action plan to increase safety along steep roads like Klein Road and Wyckoff Drive to reduce erosion and icy road conditions during the winter.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	Snow and ice accumulation reduction; flood reduction.	Estimated Benefits (losses avoided):	Traffic Accidents, winter flooding, erosion.
Useful Life:	30 years	Goals Met:	1,5
Estimated Cost:	Medium	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months once funding secured
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Municipal Public Works Budget
Responsible Organization:	Village/ SWCD	Local Planning Mechanisms to be Used in Implementation if any:	Zoning; Hazard Mitigation Plan
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Road elimination.	High	Would have to buy out all properties along steep roads and access route would be eliminated, though hazards will be reduced.
	Winter Road Hazard Reduction	Medium	Best alternative
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:	Winter Road Hazard Reduction Plan	
Project Number:	2021-V CAYUGA HEIGHTS-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This protects life and property
Property Protection	1	This protects life and property
Cost-Effectiveness	1	Benefits outweigh the costs
Technical	1	The technical expertise is available
Political	1	There is no political opposition
Legal	0	There might be some legal complications with landowners
Fiscal	-1	The project needs funding
Environmental	1	This project has a positive environmental impact
Social	1	This project has a positive social impact
Administrative	1	This project is supported by the administration
Multi-Hazard	1	This project does address multiple types of hazards
Timeline	1	This project has a reasonable timeline
Agency Champion	1	This project is supported by village agency
Other Community Objectives	1	This project is supported by community agencies
Total	11	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Emergency Shelter Designation		
Project Number:	2021-V CAYUGA HEIGHTS-002		
Risk / Vulnerability			
Hazard(s) of Concern:	All Hazards		
Description of the Problem:	The Village does not have any designated emergency shelter or temporary housing locations. Current Kendall Senior Housing has been identified as a potential facility for temporary housing, though no discussion or official designation has been made.		
Action or Project Intended for Implementation			
Description of the Solution:	Identify facilities that could potentially be designated as temporary housing locations. These facilities need to have open space and or a parking lot that has access to backup power if needed. If backup power or essential utilities are lacking, the village would need to develop site to be equipped with necessary equipment and utilities. While the Kendall Senior Facility was previously identified as it has one of the largest open space footprints in the village, further discussion and assessment would need to be conducted, and a negotiation would need to be had between the senior facility and the village.		
Is this project related to a Critical Facility?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Is the critical facility located in the 1% annual chance flood area?		Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Have designated emergency facility
Useful Life:	50 years	Goals Met:	All Goals
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months once funding secured
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	Municipal Budget, HMGP
Responsible Organization:	Village and landowners	Local Planning Mechanisms to be Used in Implementation if any:	Zoning; Hazard Mitigation Plan
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Share an emergency shelter facility with a neighboring municipality.	Medium	Will have designated emergency shelter but would be further away.
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:	Emergency Shelter Designation	
Project Number:	2021-V CAYUGA HEIGHTS-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	This protects life and property
Property Protection	1	This protects life and property
Cost-Effectiveness	1	Benefits outweigh the costs
Technical	1	The technical expertise is available
Political	1	There is no political opposition
Legal	-1	There might be some legal complications with landowners
Fiscal	-1	The project needs funding
Environmental	1	This project has a positive environmental impact
Social	1	This project has a positive social impact
Administrative	0	This project has not yet confirmed administrative support
Multi-Hazard	1	This project does address multiple types of hazards
Timeline	1	This project has a reasonable timeline
Agency Champion	1	This project is supported by village agency
Other Community Objectives	1	This project is supported by community agencies
Total	9	
Priority (High/Med/Low)	High	

