

9.5 Town of Dryden

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

9.5.1 Hazard Mitigation Planning Team

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

Table 9.5-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: David Sprout/Code Enforcement Officer Address: 93 E. Main St, Dryden, NY 13053 Phone Number: 607 844-8888 x215 Email: david@dryden.ny.us	Name/Title: Nancy Munkenbeck Address: 832 Ringwood Road, Ithaca, NY 14850 Phone Number: 607 539-7902 Email: nwm1@cornell.edu
NFIP Floodplain Administrator	
Name/Title: David Sprout & Shelley Knickerbocker/Code Enforcement Officers Address: 93 E. Main St, Dryden, NY 13053 Phone Number: 607 844-8888 Email: david@dryden.ny.us/sknickerbocker@dryden.ny.us	

9.5.2 Municipal Profile

The Town of Dryden is a rural municipality encompassing 94.9 square miles in eastern Tompkins County. Dryden is bordered to the northwest by the Town of Lansing, to the southwest by the Town of Ithaca, and to the south by the Town of Caroline. Cayuga County borders to the North, and Cortland County to the East. The Town is located along New York State Route 13 which connects Elmira, Ithaca, and Cortland. Dryden is among the state’s largest towns, and contains the Village of Dryden, the Village of Freeville, and the hamlet of Etna. Dryden Lake Park is a 200-acre wildlife area in the southeast of Dryden. Other state parks include the Hammond Hill State Park and Yellow Barn State Forest.



Dryden was established in 1797 as one of 28 townships created and set aside by State Legislature to be divided into 100 lots for Revolutionary War veterans as payment for their services. Due to the large white pine and hardwood forests, lumbering was a major economic activity in the Town. Agriculture began to replace lumbering as the forests were depleted. Major economic activity is concentrated in the Village of Dryden, located at the intersection of State Routes 13 and 392.

The Town of Dryden is governed by a Town Board, consisting of four Councilmembers and a Supervisor. Councilmembers are elected in alternating four-year terms, and Supervisors are elected for two-year terms. The Town Board manages the budget, oversees advisory committees, and writes and approves all local laws and resolutions.

According to the 2014-2018 American Community Survey, the Town of Dryden population is 12,311.

9.5.3 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 9.5-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.5-1 at the end of this annex illustrates the geographically delineated hazard areas and the location of potential new development, where available.

Table 9.5-2. 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/two-family	10	0	19	0	20	0	11	0	20	0
Multi-Family	0	0	0	0	3	0	0	0	6	0
Other (commercial, mixed-use, etc.)	4	0	4	0	9	0	0	0	2	0
Total										
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zones*		Description / Status of Development		
Recent Major Development and Infrastructure from 2014 to Present										
None										
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years										
Maifly Townhouses	Multi-Family and Single Family	47		Varna – Corner of 366/Freese Roads		None		Approved, not yet built		



SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.5.4 Capability Assessment

The Town of Dryden 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.

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 9.5.4). The Town of Dryden 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.

9.5.4.1 Planning, Legal, and Regulatory Capability

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



Table 9.5-3. 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	Planning Department/Code Enforcement	Yes
<p>Comment: 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. *The building code addresses construction standards for natural hazards including wind and earthquake.</p>					
Zoning Code	Yes	Town of Dryden Zoning Law, LL #1-2015	Local	Planning Department, Local Planning Board , Zoning Board of Appeals	No
<p>Comment: 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.</p> <p>*During the next update of the municipal zoning code, the Town 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	Town of Dryden Subdivision Law LL#4-2012	Local	Planning Department, 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 i 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). - Minor subdivisions – less than five lots- may be approved by Planning Department.</p> <p>*When the Town 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 Town 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	Planning Department	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>					
Post-Disaster Recovery Plan or Regulation	No		Local		No
Comment:					



	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
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes
<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.</p>					
Growth Management Regulation	Yes	Zoning Law Sections: 605, 606, 607, 703 Conservation Subdivision	Local	Local Planning Board	No
<p>Comment: In New York State, virtually all land use regulation, which is the primary 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> <p>*Smart Growth minimizes development in hazard areas.</p>					
Site Plan Review	Yes	General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a	Local	Local Planning Board or Town Board if SUP is required	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.</p> <p>*When the Town 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	NYDEC/ Town Planning Department	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	Yes	Federal :Participation in the NFIP State: Community Risk and Resiliency Act (CRRRA)	Local, State, Federal	Planning Department (Code Enforcement)	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> <p>*The Town's law meets the minimum requirements set by NYS. In the event those requirements are revised, the Town will revise their law to include any revisions.</p>					
Municipal Separate Storm Sewer System (MS4) Regulation	Yes	EPA Phase II Stormwater Rule	Federal	Planning Department	Yes
<p>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.</p> <p>*This (predates MS4 designation)</p>					
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Local OEM	Yes
<p>Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.</p>					



	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
Climate Adaptation	No	NYS Executive Law, Article 75	Local	-	Yes
Comment: <i>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.</i>					
Disaster Recovery Ordinance	No	-	Local	-	No
Comment:					
Disaster Reconstruction Ordinance	No	-	Local	-	No
Comment:					
Other Applicable Codes, Ordinances, & Requirements	-	-	-	-	-
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)	Local	Planning Department, Town Board , and Local Planning Board	No
Comment: <i>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.</i> *When the Town 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	General Municipal Law Section 99-g.	Local	-	No
Comment: <i>A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.</i>					
Disaster Debris Management Plan	No	-	Local	-	No
Comment: <i>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.</i>					
Floodplain or Watershed Plan	No	-	Local	-	No
Comment: <i>The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.</i>					
Stormwater Plan	Yes	Stormwater Management Program Plan 2014	Local	Planning Dept.	Yes
Comment: <i>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.</i>					
Open Space Plan	Yes	NYS Constitution - Article 9; Statute of Local Governments. Section 10 (7)	Local	Conservation Board	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
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	-	Local	-	No
Comment:					
Habitat Conservation Plan	No	-	Local	-	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	-	Local	-	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	-	Local	-	No
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	-	Local	-	No
Comment:					
Transportation Plan	No	-	Local	-	No
Comment:					
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection -	Dryden Ag & Farmland Protection Plan 2018/Right to Farm Law LL#1-1992	Agricultural Advisory Committee	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.)	-	-	-	-	-
Comment: NA					
Response/Recovery Planning					
Comprehensive Emergency Management Plan	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. 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).					



	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 Town 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 Town and update goals and objectives to align with the HMP, as necessary.					
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes HAZNY	Hazard Mitigation Plan, Chapter 5, Adopted 2000	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. *This informs level of risk of hazards of concern and aligns with the hazard mitigation plan.					
Post-Disaster Recovery Plan	No	-	Local	-	No
Comment:					
Continuity of Operations Plan	No	-	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."					
Public Health Plan	No	-	Local	-	-
Comment:					
Other: Emergency Response Plan	Yes	Town & Village of Dryden Emergency Action Plan for Virgil Creek Dam 2006	Local	Town Board	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 9.5-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes – Planning Dept. processes, then forwards development projects to Town or Planning Board.
Permits are tracked by hazard area. For example, floodplain development permits.	Yes
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	Yes. Buildout Analysis by Planning Board member David Weinstein indicated 917 vacant parcels in the Town

9.5.4.2 Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Dryden.



Table 9.5-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	Safety & Disaster Preparedness Committee*
Environmental Board/Commission	Yes	Conservation Board
Open Space Board/Committee	Yes	Conservation Board
Economic Development Commission/Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance programs to reduce risk	Yes	Highway/DPW
Mutual aid agreements	Yes	Fire Departments?
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes*	The Town sub-contracts its engineering to TG Miller
Engineers or professionals trained in building or infrastructure construction practices	Yes	Highway/DPW/Code Enforcement Officers
Planners or engineers with an understanding of natural hazards	Yes*	The Town sub-contracts its engineering to TG Miller
Staff with expertise or training in benefit/cost analysis	No	
Professionals trained in conducting damage assessments	Yes	Planning/Code Enforcement Officers
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	Planning/Code Enforcement Officers
Surveyor(s)	No	-
Emergency Manager	Yes	Town Supervisor
Grant writer(s)	Yes	-
Resilience Officer	No	-
Other	Yes	Safety & Disaster Preparedness Committee*

9.5.4.3 Fiscal Capability

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

Table 9.5-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	-
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, for PUD's only
Stormwater utility fee	No
Incur debt through general obligation bonds	-
Incur debt through special tax bonds	-



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

9.5.4.4 Education and Outreach Capability

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

Table 9.5-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes. Town of Dryden Clerk
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No* Existing Facebook page could be used for outreach
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	Yes. Safety & Disaster Preparedness Committee
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	No
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	Safety & Disaster Preparedness Committee *

9.5.4.5 Community Classifications

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

Table 9.5-8. 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	4 for single & two family 4 for commercial and industrial property	9/27/16 (evaluation date)
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	-	-
NYSDEC Climate Smart Community	Yes	Bronze	2019
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Other			

Note:



N/A Not applicable
NP Not participating
- Unavailable

9.5.4.6 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 9.5-9. Adaptive Capacity

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

*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
Unsure Not enough information is known to assign a rating

9.5.4.7 National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

David Sprout, CEO

Table 9.5-10. Floodplain Administrator Questionnaire

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. Do you maintain a list of properties that have been damaged by flooding?	Areas along major streams and lesser streams, particularly steep slope streams. *no list of damaged properties
Do you maintain a list of property owners interested in flood mitigation?	None at this time



NFIP Topic	Comments
How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)?	
Are any RiskMAP projects currently underway in your jurisdiction? If so, state what projects are underway.	Updating Flood maps –STARR II
How do you make Substantial Damage determinations? How many were declared for recent flood events in your jurisdiction?	Damage, of any origin, where the cost of structure restoration to its 'before damaged condition' is equal to or greater than 50% of pre-damage value./ None declared.
How many properties have been mitigated (elevation or acquisition) in your jurisdiction? If there are mitigation properties, how were the projects funded?	None
Do your flood hazard maps adequately address the flood risk within your jurisdiction? If not, state why.	No, the official FIRM is outdated and difficult to interpret. (Flood Damage Prevention Law allows use of better tools)
Resources	
What local department is responsible for floodplain management?	Planning Department - Code Enforcement Officers are the floodplain managers
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?	Probably
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of assistance/training is needed?	Yes. General refresher training. Map revision & map amendment training
Provide an explanation of NFIP administration services you provide (e.g. permit review, GIS, education/outreach, inspections, engineering capability)	DOS Flood Hazard Area checklist is utilized during plan reviews, Floodplain development permits are required in SFHAs
How do you determine if proposed development on an existing structure would qualify as a substantial improvement?	Cost of Improvement is equal to or greater than 50% of market value before the start of construction
What are the barriers to running an effective NFIP program in the community, if any?	No barriers
Compliance History	
Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed? If so, state the violations.	No violations
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	CAV – 9/21/2016 (Town) CAV – 6/19/19 (Village of Dryden)
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?	LL #1-1987 Law has never been amended
Does your floodplain management program meet or exceed minimum requirements? If exceeds, in what ways?	Meets minimum requirements



NFIP Topic	Comments
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?	Subdivision regulations, Site Plan Review, Stormwater Pollution Prevention Law, the Comprehensive Plan, and development design guidelines all support floodplain management.
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***At one time there was participation but it was perceived to take too much time and effort for too little in return

9.5.4.8 National Flood Insurance Program (NFIP) Summary

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

Table 9.5-11. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties
Town of Dryden	23	9	\$93,329.29	0	0

Source: FEMA 2020

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of February 28, 2018. The total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss

9.5.4.9 Additional Areas of Existing Integration

Emergency services, including firefighting and first responder services are provided by the local volunteer fire company. As residents increasingly work outside the Town, it is more difficult to recruit volunteers, even as the demand for services is increased. Significant and focused effort is required to keep these essential volunteer services sufficiently staffed, trained, and funded to provide the community the emergency response that is needed. Increasing support and pride in these services will increase quality of life for all residents.

As the Town updates its comprehensive plan, it is anticipated that several projects and policies related to hazard mitigation will be able to be further advanced. Mitigation is also very integrated with other planning initiatives. For example, in 2017, the Town developed a Natural Resources Conservation Plan which among other things recommended establishing and maintain effective buffer zones or undisturbed vegetation and soils along streams and other surface waters, preserving and restoring wetlands, and promoting farm practices that increase resiliency to the effects of climate change.



9.5.4.10 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

In the event of the Virgil Creek Dam failing: northbound Rt. 38 traffic shall be detoured onto Logan’s Run, Penny Lane, Ferguson Road, and Irish Settlement Road to continue westward on Rt. 13 towards Ithaca or via Routes 13 and 366 towards Cortland. Westbound NYS Rt.392 traffic will be detoured via Livermore Rd to Rt. 13 toward Cortland or via Livermore Rd. and Bahar Drive to Rt. 13, following Routes 38 and 366 through Freeville toward Ithaca. Truck traffic will be detoured around the Village (of Dryden) using State highways. Southbound trucks will detour via Routes 366 and 38, while northbound trucks will detour via Rt. 79.

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

Sheltering

Three shelter sites have been identified in the Town of Dryden Hazard Mitigation Plan. That plan included the Villages of Dryden and Freeville.

Table 9.5-12. Shelter Locations in the Municipality

Shelter Name	Address	Capacity	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided
Dryden Middle/High School	118 Freeville Road Dryden, NY	1742/871	No (with exceptions)	Yes	Yes (some)	Nurse’s suite w/basic first aid	Commercial Kitchen
Cassavant Elementary School	32 School Street, McClean, NY	120/60	Yes	Yes	No	None	None
Varna Community Center	943 Dryden Road, Ithaca, NY	25	Yes	Yes	Yes	None	None



Temporary Housing

There are a few locations in the Town for temporary housing as noted in the table below.

Table 9.5-13. 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
Bethel Grove Community Center	1825 Slaterville Road	Water, electric, septic	75 (pre-Covid)	Parking lot/field	Additional Backup power
Dryden Veterans Memorial Home	2272 Dryden Rd	Water, electric, septic	100 (pre-Covid)	Parking lot/field	Additional Backup power
Ellis Hollow Community Center	111 Genung Rd	Water, electric, septic	80 (pre-Covid)	Parking lot/field	Additional Backup power

Permanent Housing

The Town does not have any available land for permanent housing. However, as part of the planning process, a countywide buildable land analysis was conducted and presented in Section 4 (County Profile). The Town can utilize this analysis to identify potential locations in neighboring communities.

Table 9.5-14. Permanent 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
There are no permanent housing locations in the Municipality.					



9.5.5 Hazard Event History Specific to the Town of Dryden

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 Town of Dryden’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of the County. Table 9.5-15 provides details regarding municipal-specific loss and damages the Town 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 9.5-15. 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.	Town was affected by event though damages were not 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.	Town was affected by event though damages were not documented.
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.	Town was affected by event though damages were not 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.	Several culverts were washed out. One basement was flooded as a direct result of the culvert failure.



Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 31- November 1, 2019	Severe Storms, Straight-Line Winds and Flooding (DR-4472)	Yes		Town was affected by event though damages were not documented.

Notes:

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

9.5.6 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 Town of Dryden’s risk assessment results and data used to determine the hazard ranking.

9.5.6.1 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).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.5-16. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
ETNA VOLUNTEER FD TRAINING BLDG	Emergency Services	Yes	Yes	Yes - 005



Source: Tompkins County HAZUS 2020

9.5.6.2 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 Cattaraugus as a whole. Therefore, each Town of Dryden ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Dryden. The Town of Dryden has reviewed the Town 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 Town of Dryden indicated the following:

- The Town of Dryden concurs with the hazard ranking identified in the broader planning effort.

Table 9.5-17. Hazard Ranking Input

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

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

9.5.6.3 Identified Issues

The Town of Dryden has identified the following vulnerabilities within their community:

- Due to the significant number of agricultural operations in Dryden, drought continues to be a significant potential hazard.
- [Flooding continues to also be a hazard of great concern for the Town.](#)



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

- Severe Winter Storm and Drought were the hazards that most respondents experienced over the last 5 years.
- Most residents were Concerned, Somewhat Concerned or Very Concerned about Climate Change.
- No one that responded lived in the floodplain or had flood insurance.
- Every respondent owned their residence.

9.5.7 Mitigation Strategy and Prioritization

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

9.5.7.1 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 9.5-18. 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 Project to be included in 2021 HMP or Discontinue If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
DR1	-	Flash Flood	Town of Dryden	Establish conservation corridors along stream banks to encourage riparian vegetation for channel and floodplain stabilization and wildlife habitat	No progress	Cost	-	Action will be carried on to 2021 plan
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
DR2	-	Flash Flood	Town of Dryden	Actively inventory and mitigate risk associated with pipeline stream crossings including Six Mile Creek at German Cross Road	Complete	Cost	Low	Project is complete; pipeline study was done
						Level of Protection	Medium	
						Damages Avoided; Evidence of Success	Less flood	



9.5.7.2 Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Dryden 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:

- Several private streamside properties along Fall Creek in the Town of Dryden were planted with native trees and shrubs to formalize riparian buffer corridors.

9.5.7.3 Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Dryden participated in a mitigation action workshop in October 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: INSERT PUBLICATIONS e.g., FEMA 551 'Selecting Appropriate Mitigation Measures for Floodprone Structures' (March 2007) and FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013).

Table 9.5-19 summarizes the comprehensive-range of specific mitigation initiatives the Town of Dryden would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as 'High', 'Medium', or 'Low.' The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.5-20 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.5-19. 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-T DRYDEN-001	Implement Best Practices for Roadside Ditch Protection for Steeply Sloped Roads, Phase One	1,3	Flooding, Severe Storm	<p>Problem: High velocity runoff from severe rain events/rapid snow pack melt erodes roadside ditches and overwhelms culverts. Sediment laden stormwater clogs undersized culverts and contributes to flooding when ditches are overwhelmed. Road ditches are sometimes built and maintained without Best Management Practices that further exacerbates flooding and sediment issues.</p> <p>Solution: Work with</p>	No	No	Medium	Town DPW, Cornell Local Roads	High	Medium	NYS DEC	High	SIP, NSP	SP



Table 9.5-19. 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
				<p>Cornell Local Roads to design and implement best practices for roadside ditches of highest priority concern. This may include installing soft or rock check dams where slope is 2.5-10%, rock line and install hard check dams for slopes 10-15%. Phase one focus should include</p> <p>Mt. Pleasant Rd. where some check dams have been installed without proper design as well as Baker Hill Rd</p>										
2021-T DRYDEN-002	Fred X Flood	1,4	Flooding	<p>Problem: A man, who</p>	No	No	1 year	Town Planning	Low	Property Protection	HMGP	High	SIP	SP



Table 9.5-19. 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
	Elevation, Flood Proofing			would otherwise be homeless, set up 'camp' on a small piece of land that he owns on Lower Creek Road. The parcel is in the 100-year flood zone. Solution: Ensure that the camp is sufficiently elevated by completing a survey , flood proof or elevate as necessary and issue an elevation certificate.										
2021-T DRYDEN-003	Riparian Buffer	1	Flooding, HAB	Problem: Development along stream corridors and floodplains can disrupt a stream's dynamic equilibrium resulting in	No	No	2 years	Town DPW	Moderate	Natural System Protection	HMGP, Climate Smart Communities	High	NSP	PR



Table 9.5-19. 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
				<p>flooding and erosion. Agricultural activities along streams with little or no vegetative protection increase sediment and nutrients.</p> <p>Solution: Enact and enforce a Riparian Buffer Law that prohibits, limits, or discourages development along stream corridors and natural floodplains.</p>										
2021-T DRYDEN-004	Stormwater Plan	1,2,4	Flood	<p>Problem: The town would like to update its stormwater plan as it is currently out of date and thus is no longer useful to the</p>	No	No	2 years	Planning Board Conservation Board	Low	Updated plan	Municipal Budget, HMGP	High	LPR	PR



Table 9.5-19. 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
				municipal DPW Solution: Conduct a review of the existing stormwater plan and overlay it with new data compiled from the County. Given the town is within an MS4 zone, the SWCD can provide additional data for the town to update its stormwater inventory and update its plan.										
2021-T DRYDEN-005	Etna Fire Dept. Mitigation	1,2	Flood	Problem: The Etna Volunteer Fire Building is located in a 100-year flood zone. Solution: The town engineer shall work with the	Yes	No	2 years	Town Engineer	Moderate	Facility Flood Mitigation	HMGP	High	SIP	PR, PP



Table 9.5-19. 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
				facility maintenance crew to determine actions that need to be taken to retrofit and or relocate the facility.										
2021-T DRYDEN-006	Virgil Creek Dam	1,2	Flood, Severe Storms	Problem: Virgil Creek Dam is classified as a class C "high hazard" dam and poses a threat to the surrounding community.	Yes	No	Short, within 5 years	Town of Dryden	Low	High	Municipal Budget	High	EAP	PR



Table 9.5-19. 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
				<p>Solution: The Town of Dryden will conduct outreach to the dam owner and operator about the condition of the dam and potential risks posed by a dam failure and support an inspection plan of the dam by an engineer in accordance with the existing EAP and NYSDEC Dam Safety guidelines. The Town will aid in the development of an updated EAP as needed. If updates have been completed on the dam, the</p>										



Table 9.5-19. 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
				Town will request an inspection by NYSDEC to reclassify the dam.										

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

Potential FEMA HMA Funding Sources:

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

Timeline:

The time required for completion of the project upon implementation

Cost:




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

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 9.5-20. 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-T DRYDEN-001	Roadside Ditch Protection for Steeply Sloped Roads, Phase One	1	1	1	1	0	0	0	1	0	1	1	1	1	1	10	High
2021-T DRYDEN-002	Fred X Flood Elevation, Flood Proofing	1	1	1	1	1	0	0	1	1	1	1	1	1	1	12	High
2021-T DRYDEN-003	Riparian Buffer	0	1	1	1	0	1	0	1	1	1	0	1	1	1	10	High
2021-T DRYDEN-004	Stormwater Plan	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	12	High
2021-T DRYDEN-005	Etna Fire Dept. Mitigation	1	1	1	1	1	1	-1	1	1	1	1	1	1	1	12	High
2021-T DRYDEN-006	Virgil Creek Dam	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High

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



9.5.8 Proposed Mitigation Action Types

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

Table 9.5-21. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				PR	PP	PI	CRS		ES
	LPR	SIP	NSP	EAP				NR	SP	
Disease Outbreak										
Drought										
Extreme Temperature										
Flood	004	001; 002; 005	001; 003	006	003; 004; 005; 006	005			001; 002	
Harmful Algal Bloom			003		003					
Invasive Species										
Severe Storm		001	001	006	006				001	
Severe Winter Storm										
Wildfire										

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

9.5.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Dryden 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 Town departments, including: the Dryden Planning Department and Conservation Board. The Code Enforcement Officer, David Sprout, represented the community on the Town of Dryden Hazard Mitigation Plan Planning Partnership, Steering Committee, and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

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

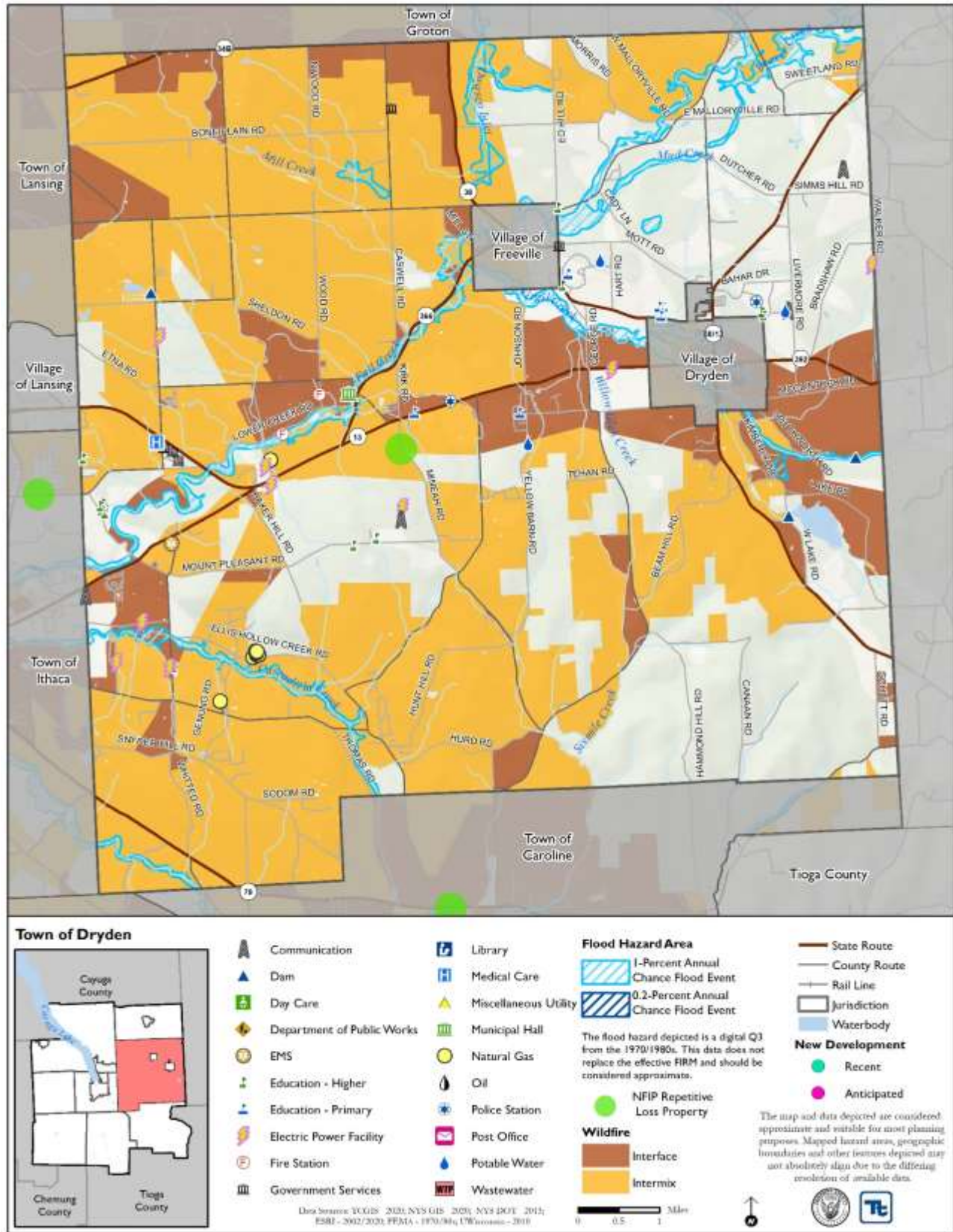


9.5.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Dryden that illustrates the probable areas impacted within the Town of Dryden. 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 Town of Dryden has significant exposure. The map is provided on the next page.



Figure 9.5-1. Town of Dryden Hazard Area Extent and Location Map



Action Worksheet			
Project Name:	Fred X Flood Elevation and Flood Proofing		
Project Number:	2021-T DRYDEN-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding		
Description of the Problem:	A man, who would otherwise be homeless, set up 'camp' on a small piece of land that he owns on Lower Creek Road. The parcel is in the 100-year flood zone.		
Action or Project Intended for Implementation			
Description of the Solution:	Ensure that the camp is sufficiently elevated by completing a survey, flood proof or elevate as necessary and issue an elevation certificate.		
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:	100-year flood	Estimated Benefits (losses avoided):	Mitigate loss of life
Useful Life:	25 years	Goals Met:	1,5
Estimated Cost:	5000	Mitigation Action Type:	Structural and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Immediate
Estimated Time Required for Project Implementation:	Two Months	Potential Funding Sources:	Office for the Aging, Dept of Social Services
Responsible Organization:	Town of Dryden Planning	Local Planning Mechanisms to be Used in Implementation if any:	Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Remove property owner	10-100k	Potential for litigation
	Purchase property	10-100k	Becomes homeless
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Fred X Flood Elevation and Flood Proofing	
Project Number:	2021-T DRYDEN-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	-
Property Protection	1	-
Cost-Effectiveness	1	-
Technical	1	-
Political	1	-
Legal	0	-
Fiscal	0	Funding from another source
Environmental	1	-
Social	1	No adverse impact
Administrative	1	-
Multi-Hazard	1	-
Timeline	1	-
Agency Champion	1	Code Enforcement Officers
Other Community Objectives	1	-
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Riparian Buffer		
Project Number:	2021-T DRYDEN-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flooding, HABs		
Description of the Problem:	Development along stream corridors and floodplains can disrupt a stream's dynamic equilibrium resulting in flooding and erosion. Agricultural activities along streams and little or no vegetative protection increase sediment and nutrients.		
Action or Project Intended for Implementation			
Description of the Solution:	Enact and enforce a Riparian Buffer Law that prohibits, limits, or discourages development along stream corridors and natural floodplains.		
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:	100 year flood	Estimated Benefits (losses avoided):	Open Space; Habitat
Useful Life:	In perpetuity	Goals Met:	1
Estimated Cost:	Low	Mitigation Action Type:	Natural System Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	3 months
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	QRIP, IO
Responsible Organization:	Town of Dryden Town Board	Local Planning Mechanisms to be Used in Implementation if any:	Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Increase development fees	Low	Not a strong deterrent
	Purchase development rights	High	Infeasible
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Riparian Buffer	
Project Number:	2021-T DRYDEN-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	0	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	
Political	0	Pro and con public opinion
Legal	1	
Fiscal	0	
Environmental	1	
Social	1	No adverse impact or disruption
Administrative	1	
Multi-Hazard	0	
Timeline	1	
Agency Champion	1	Conservation board
Other Community Objectives	1	Open space protection
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Roadside Ditch Protection for Steeply Sloped Roads, Phase One		
Project Number:	2021_Town_Dryden_001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Problem: High velocity runoff from severe rain events/rapid snow pack melt erodes roadside ditches and overwhelms culverts. Sediment laden stormwater clogs undersized culverts and contributes to flooding when ditches are overwhelmed.		
Action or Project Intended for Implementation			
Description of the Solution:	Solution: Install soft or rock check dams where slope is 2.5-10%, rock line and install hard check dams for slopes 10-15%. Phase one focus on Mt. Pleasant Rd. where some check dams have been installed without proper design, Baker Hill Rd		
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:	Flash flood	Estimated Benefits (losses avoided):	Flood Mitigation
Useful Life:	Permanent if mandated	Goals Met:	1, 3
Estimated Cost:	10-100k	Mitigation Action Type:	Natural System Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6 months once funding secured
Estimated Time Required for Project Implementation:	Unknown	Potential Funding Sources:	TEP, CHIPS,WQIP
Responsible Organization:	Town of Dryden Highway Dept.	Local Planning Mechanisms to be Used in Implementation if any:	Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Only replace undersized culverts	High	High cost and incomplete solution
	Dig ditch deeper	Medium and High	Exacerbates problem
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Roadside Ditch Protection for Steeply Sloped Roads, Phase One	
Project Number:	2021_Town_Dryden_001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	For phase 1
Technical	1	
Political	0	
Legal	0	
Fiscal	0	Grants would be needed
Environmental	1	Positive environmental impact; cleaner runoff entering receiving waters
Social	0	No adverse impact on any segment of population
Administrative	1	
Multi-Hazard	1	Flood and severe storm
Timeline	1	
Agency Champion	1	Stormwater management officer
Other Community Objectives	1	Support protection of functional capabilities.
Total	10	
Priority (High/Med/Low)	High	

