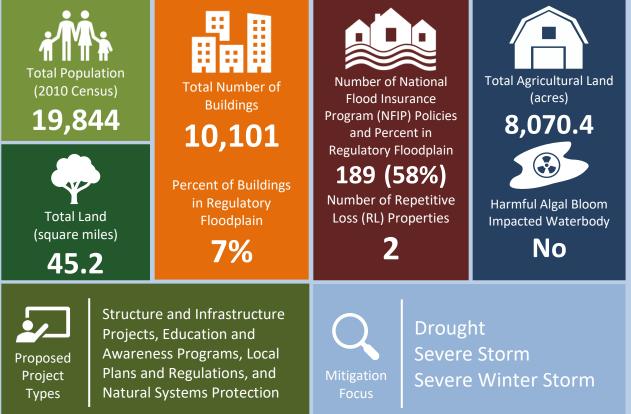


MUNICIPAL ANNEX | Town of Manlius







9.19 TOWN OF MANLIUS

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

9.19.1 Hazard Mitigation Planning Team

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

Primary Point of Contact	Alternate Point of Contact
Name: Doug Miller Title: Town Engineer	Name: Edmond Theobold Title: Town Supervisor
Phone Number: 315-558-8417	Phone Number: 315-637-3414
Address: 301 Brooklea Drive Fayetteville, New York 13066 Email: dmiller@townofmanlius.org	Address: 301 Brooklea Drive Fayetteville, New York 13066 Email: etheobald@TownofManlius.org
Floodplain Administrator	
Name: Randy Capriotti Title: Director of Code Enforcement Phone Number:	
Address: 301 Brooklea Drive Fayetteville, New York 13066 Email: rcapriotti@townofmanlius.org	

9.19.2 Municipal Profile

The Town of Manlius lies along the eastern border of Onondaga County in western New York State. The Town of Manlius has a total area of 50.0 square miles. The major streams within the town are Limestone Creek, West Branch Limestone Creek, Butternut Creek and Chittenango Creek. The Erie Canal, which cuts across the town from east to west, crosses over Limestone Creek. The New York State Thruway (Interstate 90) crosses the north part of Manlius. New York State Route 290 crosses the northwest corner of the town. New York State Route 5 (in part, Genesee Turnpike) and New York State Route 173 (Seneca Turnpike) are east-west highways. New York State Route 257 is a north-south state highway. New York State Route 92 (Cazenovia Road) is a northwest-southeast highway. The Town of Manlius is bordered by the Town of Cicero to the north, the Town of DeWitt to the west, the Town of Pompey to the south, the Town of Sullivan to the east and the Town of Cazenovia to the southeast.

The major streams within the town are Limestone Creek, West Branch Limestone Creek, Butternut Creek and Chittenango Creek. The Erie Canal, which cuts across the town from east to west, crosses over Limestone Creek. The Village of Fayetteville is by the west town line at the junction of NY-257 and NY-5. The Village of Manlius is near the south town line at the junction of NY-92 and NY-173. The Village of Minoa is in the northern part of the town on NY-257. Refer to Section 9.13 (Village of Fayetteville), Section 9.20 (Village of Manlius), and Section 9.23 (Village of Minoa) for their individual annex. The estimated 2016 population was 20,059, a 1.1 percent increase from the 2010 Census (19,844). The Town of Manlius is governed by a supervisor and six councilors.



Data from the 2016 U.S. Census American Community Survey estimates that 4.2 percent of the town population is five years of age or younger, and 18.8 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

History and Cultural Resources

The town was a township of the former Central New York Military Tract. Manlius is the name of several important Romans, but exactly which one was being honored is no longer known. The current town was first settled around 1790.

The Town of Manlius was created in 1794, along with Onondaga County, as a much larger entity, which was decreased by the formation, in part or in whole, of new towns (DeWitt, Onondaga, Salina) and part of Syracuse. It was bounded north by the township of Cicero, east by the Oneida Reservation, south by Pompey, and west by Onondaga Creek and Lake, including all the Onondaga Salt Springs Reservation north of the old Genesee Road and east of Onondaga Creek, comprising all the present towns of Manlius, DeWitt, part of Onondaga, and part of Salina, as laid out in 1809. It was reduced to its present limits in 1835. The economy related to trade generated by the Erie Canal contributed to the early development of the town.

Growth/Development Trends

Table 9.19-1 summarizes major residential/commercial development and any known or anticipated major residential/commercial development and major infrastructure development that is likely to be occur within the municipality in the next five years (as of August 2018). Refer to the map in Figure 9.19-1 of this annex which illustrates the hazard areas along with the location of potential new development.

	Туре	# of Units	Location			
Property or Development Name	(e.g. Res., Comm.)	/ Structures	(address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development	
Recent Development from 2013 to present						
Resort Lifestyles Community	Residential	1 Unit	3900 Medical Center Drive	NEHRP: D&E Carbonate Bedrock	Complete	
Megnin Farms at Poolsborrke	Residential	90 Lots	Genesee Turnpike	None Identified	On Going	
Mallards 18A	Residential	15 Lots	Indian Runner Circle	None Identified	On Going	
Brinan Fields Run	Residential	63 Lots	Brinan Fields Run	Carbonate Bedrock	On Going	
Austin Meadows	Residential	80 Units	Edwards Falls Lane	NEHRP: D&E Carbonate Bedrock	On Going	
	Known or Ai	nticipated De	velopment in the Nex	t Five (5) Years		
Reserve at Bishop Brook	Residential	16 Lots	East Seneca Turnpike and Hyde Road	None Identified	Not Started Yet	

Table 9.19-1. Growth and Development

* Only location-specific hazard zones or vulnerabilities identified.

9.19.3 Hazard Event History Specific to the Town of Manlius

Onondaga County has a history of natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of Manlius's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of





Onondaga County. Table 9.19-2 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.

	Evont Typo			
Dates of Event	Event Type (Disaster Declaration if applicable)	Onondaga County Designated?	Summary of Event	Municipal Summary of Damages and Losses
-	Severe Storms.	Yes	A slow moving warm front pushed	The storm resulted in shoulder
April – May 2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds (FEMA-DR- 1993)	Yes	northward across central New York late in the afternoon on April 25th. Severe weather developed, and in addition to reports of severe wind damage and hail, plenty of wind shear in the vicinity of the warm front allowed for a few super-cell thunderstorms and tornadoes to develop. In addition, areas of heavy rain caused significant flash flooding in several locations of central New York. On May 26, a deep upper level low pressure system shifted east from the mid-Mississippi Valley region through the afternoon and evening, allowing numerous showers and thunderstorms to develop. Many reports of large hail and damaging winds occurred in central New	The storm resulted in shoulder work on Pierson Road.
June 30- July 1, 2015	Flash Flood	No	York. An unseasonably strong storm system tapping into above normal moisture sources across the Great Lakes and Northeast triggered multiple heavy rain producing thunderstorms across the region. Localized torrential rainfall in central New York caused serious urban flash flooding in the Syracuse, NY metropolitan area. Damages are estimated between three and five million dollars.	Although the county was impacted, the town did not report damages.
July 1, 2017	Flash Flood	No	A tropical moisture laden air mass produced numerous showers and thunderstorms which traveled repeatedly over the same areas of the Finger Lakes Region and Upper Mohawk Valley. Widespread flash and urban flooding developed in portions of Cayuga, Onondaga, Madison and Oneida counties. Hardest hit areas were the villages and towns of Moravia, Chittenango, Oneida, and Utica to name a few. Total rainfall amounts along a narrow corridor from Moravia to Utica generally ranged from 2.5 to 5 inches, most of which fell in less than 1 to 2 hours. Total damages from this event range from \$10-\$15 million dollars Countywide.	Although the county was impacted, the town did not report damages.

Table 9.19-2. Hazard Event History

Notes:

EM Emergency Declaration (FEMA)

FEMA Federal Emergency Management Agency





9.19.4 Hazard Ranking and Jurisdiction-Specific Vulnerabilities

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

Hazard Risk Ranking

Table 9.19-3**Error! Reference source not found.** includes the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating town or village may have differing degrees of risk exposure and vulnerability compared to Onondaga County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Manlius. The Town of Manlius has reviewed the County hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

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

• The town agreed with the calculated risk rankings.

Table 9.19-3. Town of Manlius Hazard Ranking Input

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

Notes: The scale is based on the following hazard rankings as established in Section 5.3. High = Total hazard priority risk ranking score of 5 and above Medium = Total hazard priority risk ranking of 3.9 – 4.9 Low = Total hazard risk ranking below 3.8

Critical Facilities Flood Risk

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2' above the Base Flood Elevation (BFE). This statute is outlined at <u>http://tinyurl.com/6-CRR-NY-502-4</u>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood event, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYSDHSES 2017).





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.

		Exposure			Loss from od Event	
Name	Туре	1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Addressed by Proposed Action
OCSO COR EAST SUBSTATION	County Facility		Х	-	-	-
Town of Manlius	DPW	Х	Х	0%	0%	-
WEP MEADOWBROOK SEWAGE TREATMENT PLANT	Waste Water Treatment Plant	Х	Х	0%	0%	T. Manlius-10
OD1690	Well	X	Х	1.39%	-	T. Manlius-9

Table 9.19-4. Potential Flood Losses to Critical Facilities

Source:	FEMA	2016,	SOPA	2018

The town noted that the Highway Garage and Sewage Treatment Plant are already protected from flooding to the 500-year flood level.

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The DPW is located in the 100-year floodplain.
- The town has repetitive loss properties.

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

- Portions of the West Side near Onondaga Creek is subject to flooding. WWTP are susceptible to bypass flows and undertreating sanitary influent.
- Combined Sewer Overflows are more frequent during wet weather and snowmelt events in downtown Syracuse.
- Increase WWTP capacities; increase road repair frequency to reduce accidents in winter; work with City of Syracuse to control stormwater
- Purchase generators, building a water treatment plant for Skaneateles Lake.

9.19.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

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





Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Manlius.

Table 9.19-5. Planning and Regulatory Tools

				1
Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability			-	
Comprehensive Plan	No	-	-	-
Capital Improvements Plan	Yes	Local	Supervisor	Capital Improvements Plan
Floodplain Management / Basin Plan	Yes	Local	Eng./Highway	Floodplain Management / Basin Plan
Stormwater Management Plan	Yes	Local	Engineer	Ch. 126
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	Yes	Local	Police Dept.	Comprehensive Emergency Management Plan
Emergency Operation Plan	Yes	Local	Police Dept.	
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	Yes	County	-	Post-Disaster Recovery Plan
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Climate Adaptation Plan	No	-	-	-
Resilience Plan	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	Local	Town Board	Ch. 59, 1991, Amended 2007
Zoning Ordinance	Yes	Local	Town Board	Ch. 155, 1991, as Amended
Subdivision Ordinance	Yes	Local	Town Board	Ch. 127, 1991, as Amended
NFIP Flood Damage Prevention Ordinance	Yes	Local	Town Board	Ch. 72
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	Local	Town Board	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Town Board	Ch. 155 – 28
Stormwater Management Ordinance	Yes	Local	Town Board	Ch. 126
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Town Board	-





Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Natural Hazard Ordinance	Yes	Local	Town Board	Ch. 59 Building Construction and Fire Prevention
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS Department of State, Real Estate Agent	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	Yes	Local	-	Steep Slopes

Administrative and Technical Capability

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

Table 9.19-6. Administrative and Technical Capabilities

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





	Is this in place? (Yes or No)	Department/ Agency/Position
Professionals trained in conducting damage assessments	Yes	Highway/Engineer

Fiscal Capability

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

Table 9.19-7. 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 - Special Districts (water, sewer, storm sewer, lighting
Impact fees for homebuyers or developers of new development/homes	Yes – Parkland
Stormwater utility fee	Yes
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Community Classifications

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

Table 9.19-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Natural disaster/safety programs in/for schools	Yes	TBD	-
Organizations with mitigation focus (advocacy group, non-government)	Yes	TBD	-
Public education program/outreach (through website, social media)	Yes	TBD	-





Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-
Other Note:	No	-	-

N/A Not applicable

NP Not participating

Unavailable

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

Criteria for classification credits are outlined in the following documents:

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

Self-Assessment of Capability

The table below provides an approximate measure of the Town of Manlius' capability to work in a hazardmitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.19-9. Self-Assessment Capability for the Municipality

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





National Flood Insurance Program

The Flood Damage Prevention Ordinance for the Town of Manlius meets FEMA and State minimum standards.

NFIP Floodplain Administrator (FPA)

Randy Capriotti, Director of Code Enforcement

National Flood Insurance Program (NFIP) Summary

The Town of Manlius does not maintain lists/inventories of properties that have been flood damaged and does not make substantial damage estimates.

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

Table 9.19-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Manlius	189	43	\$214,565	2	0	110

Source: FEMA Region 2 2018.

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

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

(3) Number of policies inside and outside of flood zones is based on latitude and longitude coordinates provided by FEMA Region 2 in the policy file. FEMA noted that for a property with more than one entry, more than one policy may have been in force or more than one Geographic Information System (GIS) specification was possible. Number of policies and claims, and claims total, exclude properties outside OnondagaCounty boundary, based on provided latitude and longitude coordinates.

RL Repetitive Loss

SRL Severe Repetitive Loss

Resources

The FPA is the sole person responsible for floodplain administration. NFIP administration services and functions include permit review and inspections. The town does not have any education or outreach programs regarding flood hazards/risk reduction. The FPA noted that they do not have access to resources to determine possible future flooding conditions from climate change. However, they feel adequately supported and do not feel there are any barriers to running an effective floodplain management program. The FPA noted they would consider attending continuing education and/or certification training on floodplain management if it were offered in the County for all local floodplain administrators.

Compliance History

The Town of Manlius is in good-standing in the NFIP. The most recent compliance audit [e.g. Community Assistance Visit (CAV)] was September 15, 2015. The town regularly determines if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedules if needed. The town maintains compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.





Flood Damage Prevention Ordinance: The Town of Manlius' Flood Damage Prevention Ordinance (Chapter 72 of the municipal code) was adopted to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of floodwaters.
- Control filling, grading, dredging and other development which may increase erosion or flood damages.
- Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.
- Qualify and maintain for participation in the National Flood Insurance Program.

The objectives of this chapter are:

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

The FPA noted that there are other local ordinances, plans or programs (e.g. site plan review) that support floodplain management and meeting the NFIP requirements. The FPA stated that the town has not considered joining the Community Rating System (CRS) program to reduce flood insurance premiums. The town maintains compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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





Existing Integration

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

Onondaga County Hazard Mitigation Plan: The Town of Manlius supports the implementation, monitoring, maintenance, and updating of this Plan. The town supports County-wide initiatives identified in Section 9.1 of the County Annex.

Emergency Plans: The Town of Manlius has a Continuity of Operations/Continuity of Government (COOP/COG) plan(s), Comprehensive Emergency Management Plan, and Post-Disaster Recovery Plan/Strategic Recovery Plan. The Post-Disaster Recovery Plan/Strategic Recovery Plan and Comprehensive Emergency Management Plan refer to the Hazard Mitigaiton Plan. The town continues to develop, enhance, and implement existing emergency plans.

The Town of Manlius does not have a Comprehensive Plan, Re-Development Plan, Growth Plan, Economic Development Plan, Open Space Plan, Watershed or Stream Corridor Management Plan, Local Waterfront Revitalization Plan, resilience plan/strategy, or Climate Adaptation Plan/strategy. The town is in the process of developing a deer management plan to address the overabundance of white-tailed deer in the area as well as manage associated hazards of the deer population, including Lyme disease, negative impacts to vegetation, and vehicular accidents.

Opportunities for Future Integration

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

Regulatory and Enforcement (Ordinances)

Existing Integration

The town has multiple local ordinances pertaining to the mitigation of hazards. These ordinances include the establishment of boards (see Operational and Administration below), Fire Prevention Ordinance, Flood Damage Prevention Ordinance, Stormwater Management Ordinance, Storm Sewers Ordinance, Sewers Ordinance, Zoning Ordinance, and the Subdivision of Land Ordinance. The municipal Code and other local ordinances are available on the town website (<u>http://www.townofmanlius.org)</u>.

Zoning Ordinance: The Town of Manlius' Zoning Ordinance (Chapter 155 of the municipal code) provides for the regulating, controlling and restricting of the location, construction and use of real estate, buildings and structures and for the general use and development of land in the town and, for said purposes, dividing the town into districts. The ordinance was adopted for the purpose of promoting the health, safety, morals and general welfare of the inhabitants of the town, to secure safety from fire, panic and other dangers, to lessen congestion in the streets, to provide adequate light and air, to prevent the overcrowding of land, to conserve property values, to preserve beneficial environmental characteristics and to promote the growth and prosperity of the town. Established districts to dissuade development in hazard areas include the Airport Flight Hazard Area District, Natural Resource Removal District, Flood Danger Zone, and the Floodway Zone.

Subdivision Ordinance: The Town of Manlius' Subdivision of Land Ordinance (Chapter 127 of the municipal code) states that it is the policy of the Town of Manlius that the subdivision and development of land for





residential, commercial and industrial and other purposes shall be guided and regulated in such a manner as to meet the following requirements for orderly and harmonious growth:

- Land to be subdivided or developed shall be of such character that it can be used safely without danger to health or peril from fire, flood, erosion, excessive noise or smoke or other menace.
- Proper provisions shall be made for drainage, water supply, sewage disposal and other appropriate utility services. The proposed streets shall provide a safe, convenient and functional system for vehicular circulation and shall be properly related to the Master Plan of the area.
- Streets shall be of such width, grade and location as to accommodate prospective traffic as determined by existing and probable future land and building uses.
- Buildings, lots, blocks and streets shall be so arranged as to afford adequate light, view and air to facilitate fire protection and to provide ample access for fire-fighting equipment to buildings.
- Land shall be subdivided or developed with due regard to topography so that the natural beauty of the land and vegetation shall be protected and enhanced.

Stormwater Management and Erosion and Sediment Control Ordinance: The Town of Manlius' Stormwater Management and Erosion and Sediment Control Ordinance (Chapter 126 of the municipal code) was established to establish minimum stormwater management requirements and controls to protect and safeguard the general health, safety, and welfare of the public residing within the Town of Manlius and to address the findings of fact identified herein. This chapter seeks to meet those purposes by achieving the following objectives:

- Meet the requirements of minimum control measures 4 and 5 of the SPDES General Permit for Stormwater Discharges from Municipal Separate Stormwater Sewer Systems (MS4s), Permit No. GP-02-02, or as amended or revised;
- Require land development activities to conform to the substantive requirements of the NYS Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) General Permit for Construction Activities GP-02-01, or as amended or revised;
- Minimize increases in stormwater runoff from land development activities in order to reduce flooding, siltation, increases in stream temperature, and streambank erosion and maintain the integrity of stream channels;
- Minimize increases in pollution caused by stormwater runoff from land development activities which would otherwise degrade local water quality;
- Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and
- Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety.

Mutual Aid Ordinance: The Town of Manlius' Mutual Aid Ordinance (Chapter 23 of the municipal code) was established to facilitate the process by which a municipality may grant or request police assistance from another municipality. The General Municipal Law, § 209-m, authorizes the Supervisor of the Town of Manlius to grant or request police assistance. General Municipal Law § 209-m authorizes the town to delegate this authority to its Police Chief by adoption of a local law. Pursuant to this chapter, such authority shall be delegated to the Town of Manlius Chief of Police. For purposes of this chapter, the phrase "Chief of Police" shall have the same meaning and intent as is set forth in the General Municipal Law § 209-m, Subdivision 1c.

The Town of Manlius' municipal zoning, subdivision regulations, and site plan review process consider natural hazard risk, and require developers to take additional actions to mitigate natural hazard risk. The Planning





Board/ZBA is provided with GIS information, pictometry, BAS, and federal, state, and local regulations to guide their decisions with respect to natural hazard risk management.

Opportunities for Future Integration

When updating ordinances, the town will consider natural hazards and resilience.

Operational and Administration

Existing Integration

Planning Board: The Town of Manlius' Planning Board meets the second and fourth Monday of every month at 6:30 PM. The Planning Board is there to provide sound planning decisions and advice on matters entrusted to it by New York State Law and the Manlius Code including:

- All referred matters
- Site plan review
- Subdivision review
- Zoning advice to the Town Board or to the Zoning Board of Appeals

Zoning Board: The Town of Manlius' Zoning Board of Appeals meets the third Thursday of every month at 6:30 PM. The powers of the ZBA are established by state law, which establish the ZBA as an appellate board who can review the application of a person who has applied to the Code Enforcement Officer for a zoning permit and such permit was denied. An "aggrieved" citizen can also appeal the decision of the Code Enforcement Officer where a permit was granted. In both instances, the ZBA is the first level of appeal from the decision of the Code Enforcement Officer.

Environmental Council (TMEC): This council is the first cooperative effort (1973) among the Town of Manlius and its villages of Fayetteville, Manlius, and Minoa, that recognizes the fact that environmental issues transcend town and village boundary lines. Town of Manlius and its villages have been ahead of New York State in being aware of environmentally sensitive issues. TMEC provides a variety of support services to the town and its 3 villages including:

- Maintaining a 30-year file of photographs, slides and documentation relating to local environmental issues and land use, including 3 complete flyovers of the town.
- Reviewing proposals to identify environmental impacts and suggesting mitigating actions
- Studying environmental protection practices to seek ideas for local projects
- Tracking long-term environmental trends in water, air and land use quality throughout the Town of Manlius

Critical Response Committee (CRC): The Town of Manlius is an active participant in a town-wide Critical Response Committee (CRC). Established in the fall of 2001, the mission of the CRC is to coordinate the various emergency services and available resources for a response within the town of Manlius in the event of an emergency. Goals of the Critical Response Committee (CRC) include:

- Improving communications between first responders through roundtable discussion and debriefing of local critical incident responses
- Maintaining a coordinated multi-agency town-wide critical incident response plan
- Planning opportunities for local critical response training, scenarios, move-ups and tabletop exercises
- Suggesting improvements for communications interoperability among first responders





Mutual Aid Agreements: The Town of Manlius works to create/enhance/ maintain mutual aid agreements with neighboring communities.

Stream Team Program: The Town of Manlius supports/participates in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.

Retrofitting/Removal of Structures from Hazard Prone Areas: Where appropriate, the Town of Manlius supports the retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. The town works to identify facilities that are viable candidates for each strategy based on cost-effectiveness. Implementation of these actions are based on available funding.

Structure/Facility Inventories/Datasets: The Town of Manlius participates in regional, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including:

- Support the performance of enhanced risk and vulnerability assessments for hazards including flooding, earthquake, wind, and land failure.
- Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use.

Stormwater Basin Maintenance: The Town of Manlius continues to fund stormwater basin maintenance – per local Stormwater Management Plan. This includes stormwater basin maintenance and mowing, and outfall repairs.

The Town of Manlius does not have a municipal planner or contract planning firm. NFIP Floodplain Management functions are performed by the Director of Codes. Stormwater Management functions are performed by the Engineer, Director of Codes, and Highway Superintendent. The Town of Manlius contracts with the Engineer. The Engineer has experience with developing Benefit-Cost Analysis, can perform Substantial Damage Estimates, and have experience in preparing grant applications for mitigation projects. The Highway Department staff have job descriptions that involve natural hazard risk. Town staff receive training or continuing professional education which supports natural hazard risk reduction and staff participate in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. The town also has other hazard management programs in place.

Opportunities for Future Integration

Staff could continue to receive training regarding natural hazard mitigation.

Funding

Existing Integration

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



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

Opportunities for Future Integration

The town could apply for grants to support hazard mitigation projects.

Education and Outreach

Existing Integration

The Town of Manlius has public outreach mechanisms/programs to inform citizens on natural hazards. The Town of Manlius operates a municipal website (<u>http://www.townofmanlius.org/</u>) which has community news and information. The town also has a Facebook page, Instagram account, and Twitter handle.

The town's website posts information regarding upcoming community events and important municipal decisions. The website provides information related to safety and hazard mitigation including direct links to flood hazard maps and the flood damage prevention ordinance, local emergency response contact information, current project information, and other related ordinances (see Regulatory and Enforcement). The town also provides a series of FAQs related to flood insurance and flood maps on their website.

Opportunities for Future Integration

The town could include information on natural hazards on the town website and social media accounts.

Sheltering, Evacuation, and Temporary Housing

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

Temporary and Permanent Housing

The Town of Manlius has not identified potential sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired. To accommodate longer term housing needs of permanently displaced residents, there is an existing supply of vacant housing units within the county which may be able to satisfy and absorb those housing needs. The county also has ample buildable land availability throughout its communities to satisfy construction of new housing units if needed, as mapped in Section 4, figure 4-20 in Volume I of this plan. Of note, given the nature of the hazards of concern to Onondaga County, the extent of housing need is also not likely to exceed currently available housing stock for all but the most extreme and widespread hazard events.

Evacuation and Sheltering Needs

The Town of Manlius has designated the following emergency shelters:

• Manlius Municipal Building (Warming Center): 1 Arkie Alabanese Avenue Manlius, NY 13104. The Building has a capacity of 20, does not accommodate pets, is not ADA compliant, has backup power, and does not provide medical services.





The town has identified the following evacuation routes and procedures:

- North: Kirkville Road West to Rt. 481, Rt. 290 West to Rt. 481
- Central: Rt. 5 West to Rt. 481
- South: Rt. 92 West to Rt. 481

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

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

9.19.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

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





Table 9.19-11. Status of Previous Mitigation Actions

Project#	Project	nduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited				status is ete)	1. 2. 3.	 ct Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why. 	
TMN- 0	reduction: Provide and maintain li Prepare and distribute i mitigate their propertie Use the village email n hazard risk reduction n	inks to the C nformationa s, and instru otification s neasures. od association	Doondaga County HN al letters to flood vul- lecting them on how t ystems and newslette ons, civic and busine	IP website, and r nerable property of ney can learn more ers to better educa ss groups to disse	egularly post n owners and nei re and implement the the public o ominate inform	otices on the m ghborhood asso ent mitigation. n flood insuran ation on flood it	unicipal homo ciations, expl ce, the availal	epage lainin bility	e referencing the Onondaga County HMP webpages. In the availability of mitigation grant funding to of mitigation grant funding, and personal natural vailability of mitigation grant funding.
	See above.	All Hazards			In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. 2. 3.	Include in 2019 HMP No Change
TMN- 1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost- effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.	Flood Severe Storm	Properties located in floodplains	Municipality through NFIP Floodplain Administrator	Ongoing capability	Cost Level of Protection Damages Avoided; Evidence of Success	Low Moderate	1. 2. 3.	Discontinue Ongoing capability
TMN- 1b	Where appropriate, support purchase, or relocation of structures located in hazard-	Flood Severe Storm		Municipality NFIP	Ongoing capability	Cost Level of Protection	Medium Moderate	1. 2.	Discontinue





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is <u>complete</u>)	 Next Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
	prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost- effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.					Damages Avoided; Evidence of Success	3. Ongoing capability
TMN-2	Begin the process to apply to participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders. This shall start with the submission to FEMA-DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	Flood Severe Storm		Municipality NFIP	In Progress	CostLowLevel of ProtectionModerateVBV- 4Damages Avoided; Evidence of SuccessImage: Content of the second of the s	3.
TMN- 3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Flood Severe Storm		Municipality	Ongoing capability	Cost Low Level of Protection High Damages Avoided; Evidence of Success	 Discontinue . Ongoing capability
TMN- 4	Maintain compliance with and good-standing in the NFIP including adoption and	Flood		NFIP	Ongoing capability	Cost Level of Protection	 Discontinue 2.





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	(if project	Evaluation of Success (if project status is <u>complete</u>)		xt Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
	enforcement of floodplain management requirements (e.g. regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. Further meet and/or exceed the minimum NFIP standards and criteria through the following NFIP- related continued compliance actions identified as Initiatives TMN-0, 1a, 1b, 2, and 8 through 17.					Damages Avoided; Evidence of Success		3.	Ongoing capability
TMN- 5	Continue to develop, enhance, and implement existing emergency plans.	All Hazards		County OEM SEMD Municipality	Ongoing capability	Cost Level of Protection Damages Avoided;	Low- Medium Moderate	1. 2. 3.	Discontinue Ongoing capability
		All		Municipality		Evidence of Success	Low-		
		Hazards				Cost Level of	Medium	1.	Discontinue
TMN- 6	Create/enhance/ maintain mutual aid agreements with neighboring communities.				Ongoing capability	Protection Damages Avoided; Evidence of Success	Moderate	2. 3.	Ongoing capability
		All Hazards		OCSWEP OCSWCD		Cost	Low- Medium	1.	Discontinue
TMN-	Support County-wide initiatives			Municipality	Ongoing	Level of Protection	Moderate	2.	
7	identified in Section 9.1 of the County Annex.				capability	Damages Avoided; Evidence of Success		3.	Ongoing capability
				OCSWCD		Cost	Moderate	1.	Discontinue





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation (if project compl	status is	1. 2.	t Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
TMN- 8	Support/Participate in the Stream Team program offered by the Onondaga County SWCD, to assist in the removal of debris, log jams, etc. in flood vulnerable stream sections.	Flood Severe Storm			Ongoing capability	Level of Protection Damages Avoided; Evidence of Success	Moderate	2. 3.	Ongoing capability
TMN- 9	Assist property owners with drainage issues to identify and apply for available mitigation grant funding for eligible mitigation activities	Flood Severe Storm		Municipality Homeowners	In Progress	Cost Level of Protection Damages Avoided; Evidence of Success	Low Moderate	1. 2. 3.	Include in 2019 HMP No Change
TMN - 10	Continue to fund and participate in the log jam clearing program on the Chittenango Creek with the Town of Sullivan (Madison County)	Flood Severe Storm	Past Events	Municipality FEMA HMP	In Progress	Cost Level of Protection Damages Avoided; Evidence of Success	Low Low	1. 2. 3.	Include in 2019 HMP No Change
TMN -11	Continue to fund stormwater basin maintenance – per local Stormwater Management Plan. Includes stormwater basin maintenance and mowing, and outfall repairs.	Flood Severe Storm	Past Events	Municipality FEMA HMP	Ongoing capability	Cost Level of Protection Damages Avoided; Evidence of Success	Medium Moderate	1. 2. 3.	Discontinue Ongoing capability
TMN -12	Continue to implement local drainage surveys through the town per the stormwater operating budget	Flood Severe Strorm	Past Events	Municipality Homeowners	In Progress	Cost Level of Protection Damages Avoided; Evidence of Success	Low Moderate	1. 2. 3.	Include in 2019 HMP No Change
TMN- 13	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, continue to	Flood Severe Storm	Past Events	OCDWEP	In Progress	Cost Level of Protection	Medium Moderate	1. 2.	Include in 2019 HMP No Change





	Martine Status												
Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation ((if project <u>comp</u> l	status is	1. 2.	t Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.				
	support existing maintenance and inspection activities of Ley Creek – North Branch and its culverts to ensure they remain clear of debris, structurally sound and operable.					Damages Avoided; Evidence of Success		3.					
TMN- 14	The Beartrap-Ley Creek Drainage District is flat and heavily urbanized making the lowest areas extremely vulnerable to rain-event flooding that approach or exceed 5-year storms. Conduct /support a more detailed topographic study in the critical areas to determine which individual properties are most at risk to assist with determining mitigation actions.	Flood Severe Storm			In Progress	Cost Level of Protection Damages Avoided; Evidence of Success		1. 2. 3.	Include in 2019 HMP No Change				
TMN- 15	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	All Hazards			Ongoing capability	Cost Level of Protection Damages Avoided; Evidence of Success	Medium Moderate	1. 2. 3.	Discontinue Ongoing capability				
TMN- 16	if needed. Evidence of Success 5. Ongoing capability Participate in RL/SRL property owner outreach and education activities, provided by FEMA, as initiated and coordinated by the County initiative OC-35, described herein. Within the first year of Plan adoption, request FEMA to conduct a mitigation workshop targeting those communities with significant numbers of flood vulnerable properties and Repet Loss/Severe Repetitive Loss (RL/SRL) properties (e.g. Towns of Cicero, DeWitt, Elbridge, Lafayette, Lysander, Manlius; Village of Skaneateles; City of Syracuse). This program sho address the specific interests and concerns of these flood vulnerable communities in the County which includes: • Gaining a better understanding of the available mitigation grant programs, including the procedural requirements of a RL/SRL community under this program; • Understanding how flood vulnerable and RL/SRL communities can enhance their efforts to encourage and support property owners to mitigate their properties,												





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete) Level of Medium		 Next Steps Project to be included in 2019 HMP or Discontinue If including action in the 2019 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
		All Hazards			Ongoing capability	Protection	Medium Moderate	 Ongoing capability
TMN- 17	efforts. Such programs may inclue various planning and emergency n • Support the performand • Support state, county a land use. Improved structural and facility in "Rapid Visual Screening of Buildi	de developi nanagement ce of enhan nd local pla wentories co ings for Pote	ng a detailed invento t purposes including: ced risk and vulnerab nning efforts includin ould incorporate floo ential Seismic Hazard	ry of critical facil ility assessments ng mitigation (inc d, wind and seism ds" methodologie	ities based upo for hazards in cluding updates hic-specific par s, or "Rapid O	on FEMA's Compr cluding flooding, e s to the State HMP, rameters (e.g. first f bservation of Vuln	rehensive D earthquake, P), comprehe floor elevat nerability ar	nd hazard datasets to support enhanced risk assessment Data Management System (CDMS) which could be used for wind, and land failure. tensive emergency management, debris management, and tions, roof types, structure types) based on FEMA-154 nd Estimation of Risk - ROVER. It is recognized that these and funding provided at the regional, state and/or federal
	See above.	All Hazards			Ongoing capability		Medium Moderate	 Discontinue Ongoing capability





Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

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

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

Proposed Hazard Mitigation Initiatives for the Plan Update

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

Table 9.19-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Manlius 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 9.19-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.





Table 9.19-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goal s Met	Hazard(s) to be Mitigated	Descriptio n of Problem	Description of Solution?	Critical Facility (Yes/No)	Environmenta l and Historic Preservation (EHP) Issues	Estimate d Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Manlius -1 (former TMN – 10)	Log jam and problem tree clearing program on the Chittenango Creek with the Town of Sullivan (Madison County)	1, 2, 4, 5	Flood Severe Storm	Chittenang o Creek is prone to log jams resulting in flooding.	The town will partner with the Town of Sullivan to clear log jams and trim problem trees in Chittenango Creek.	No	Yes, may require permitting	Annual	Highway Department	\$5,000	Reduction in flooding	Local budget, HMGP	High	NSP	N R
T. Manlius -2	Repetitive Loss Property Outreach	2, 3	Flood	There are two repetitive loss properties located in the Town of Manlius. These properties may be affected by heavy rain or flood events which may pose severe health and safety risks to residents.	The town will contact each repetitive loss property owner and discuss options for mitigation (elevation, mitigation, acquisition). The town will assist the property owners with their selected mitigation actions.	No	None	Within 6 months	Floodplain administrator	<\$100	Reduction in flood risk for repetitive loss properties.	Town budget	High	EAP	Ы
T. Manlius -3 (former TMN-0)	Conduct and facilitate community and public education and outreach for	2	All Hazards	The public additional natural hazar miti Solution: include, but to, the follow	is in need of education on rds and hazard gation Outreach to not be limited ring to promote natural hazard	No	None	Annual	Municipal officials and floodplain administrator s supported by the County (through	TBD	Public is educated on natural hazards and is more likely to make proper	Municipal budget	High	EAP	РІ





Table 9.19-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goal s Met	Hazard(s) to be Mitigated	Descriptio n of Problem	Description of Solution?	Critical Facility (Yes/No)	Environmenta l and Historic Preservation (EHP) Issues	Estimate d Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
	residents and businesses		Mugacu	risk reductio maintain Onondaga (website, and notices on t homepage r Onondaga (webpages; distribute i letters to flo property neighborhoo explaining th mitigation g mitigate their instructing they can le implement n the village en systems and better educat flood insu availability grant funding natural hazard measures; neighborhoo civic and bus disseminate i flood insu availability grant f	or, Provide and n; Provide and links to the County HMP regularly post he municipal eferencing the County HMP Prepare and nformational od vulnerable owners and d associations, e availability of ant funding to properties, and them on how arn more and nitigation; Use nail notification newsletters to e the public on urance, the of mitigation g, and personal d risk reduction Work with d associations, iness groups to information on ance and the of mitigation funding. al outreach e supported by ounty,				SOCPA and EM)		decisions during hazard events and mitigate property prior to events.				
T. Manlius -4	Begintheprocesstoapplytoparticipatein	1, 2	Flood, Severe Storm	The town is impacted by flooding and	This shall start with the submission to FEMA-	No	None	Annual	Floodplain Administrator with support from	TBD	Increased flood outreach, flood	Municipal budget	High	LPR	All





Table 9.19-12. Proposed Hazard Mitigation Initiatives

Jupper Gormer TMN-2)	Project Name the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders	Goal s Met	Hazard(s) to be Mitigated	Descriptio n of Problem residents with NFIP policies have costly premiums.	Description of Solution? DHS of a Letter of Intent to join CRS, followed by the completion and submission of an application to the program once the community's current compliance with the NFIP is established.	Critical Facility (Yes/No)	Environmenta I and Historic Preservation (EHP) Issues	Estimate d Timeline	Lead Agency NYSDEC, NYSDHSES, FEMA	Estimated Costs	Estimated Benefits protection, lower rate for flood insurance policies.	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Manlius -5 (former TMN-9)	Assist property owners with drainage issues to identify and apply for available mitigation grant funding for eligible mitigation activities	1, 2, 3, 5	Flood, Severe Storms	Property owners with drainage issue lack access to mitigation grant funding	The town will locate mitigation grants and connect property owners with drainage issues to these grants and assist in application.	No	None	Annual	Municipality Homeowners	Staff time	Educated public. Increased mitigation of properties.	FEMA HMA grants – local match from property owners	Medium	EAP , SIP	PI, PP
T. Manlius -6 (former TMN – 12)	Continue to implement local drainage surveys	1, 3	Flood, Severe Storms	Local drainage issues need to be mapped.	The town will implement local drainage surveys	No	None	Annual	Municipality with homeowners	Varied	Increased information on how to target stormwater	Local budget	High	LPR	PR





Table 9.19-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goal s Met	Hazard(s) to be Mitigated	Descriptio n of Problem	Description of Solution?	Critical Facility (Yes/No)	Environmenta l and Historic Preservation (EHP) Issues	Estimate d Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T	Continue to				through the town per the stormwater operating budget						flooding issues	Occurted	YY - 1		
T. Manlius -7 (former TMN- 13)	Continue to support existing maintenance and inspection activities of Ley Creek – North Branch	1, 5	Flood, Severe Storms	Culverts are prone to debris clogs	As identified in the 2006 Beartrap-Ley Creek Drainage District Study, continue to support existing maintenance and inspection activities of Ley Creek – North Branch and its culverts to ensure they remain clear of debris, structurally sound and operable.	No	None	Annual	OC Dept of Water Environment Protection	TBD	Reduction in flooding	County/ District/ Local Budgets	High	LPR	PR
T. Manlius -8 (former TMN- 14)	Conduct /support a more detailed topographic study in the critical areas of Beartrap- Ley Creek.	1,5	Flood, Severe Storm	The Beartrap- Ley Creek Drainage District is flat and heavily urbanized making the lowest	Conduct /support a more detailed topographic study in the critical areas of Beartrap- Ley Creek to determine	No	None	Annual	OC Dept of Water Environment Protection; Beartrap-Ley Creek Drainage District; town	TBD	Town able to determine where to target mitigation actions	FEMA HMA; District/Co unty/Local budgets	Medium	LPR	PR





Table 9.19-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goal s Met	Hazard(s) to be Mitigated	Descriptio n of Problem	Description of Solution?	Critical Facility (Yes/No)	Environmenta l and Historic Preservation (EHP) Issues	Estimate d Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				areas extremely vulnerable to rain- event flooding that approach or exceed 5- year storms.	which individual properties are most at risk to assist with determining mitigation actions.										
T. Manlius -9	Protect the OD1690 Well to the 500- year flood level.	1, 3	Flood	The Well is located in the 100- year floodplain	The town will contact the facilities manager and discuss options for protecting the facility to the 500-year flood level	Yes 🌢	None	TBD	Facilities manager, town	TBD	Well protected to the 500- year flood level	HMGP	High	SIP	РР
T. Manlius -10	Protect he Meadowbroo k Sewage Treatment Plan to the 500-year flood level.	1, 2, 6	Flood	The Sewage Treatment Plant is located in the 100- year floodplain. The facility is county owned and the town does not have jurisdiction.	Refer to Section 9.1 for the county annex for the project.	Yes 🌢	None	Ongoing until complete	OC WEP	\$1+ million	Reduction in flood exposure	FEMA HMGP and PDM, WQIP, county budget	High	SIP	РР







Notes:

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

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

FMA

HMGP

PDM

Potential FEMA HMA Fundina Sources:

Flood Mitigation Assistance Grant Program

Pre-Disaster Mitigation Grant Program

Hazard Mitiaation Grant Proaram

Acronyms and Abbreviations:

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

Mitigation Category:

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

CRS Category:

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

Critical Facility:

Yes
Critical Facility located in 1% floodplain



Timeline:

The time required for completion of the project upon implementation

<u>Cost:</u>

The estimated cost for implementation.

Benefits:

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



Section 9.19 Town of Manlius

Project Number	Project Name	Life Safety	Property Protection	Cost-	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency	Other Commity	Total	High / Medium / Low
T. Manlius-1 (former TMN – 10)	Log jam and problem tree clearing program on the Chittenango Creek with the Town of Sullivan (Madison County)	0	1	1	1	1	1	0	1	1	1	1	1	1	1	12	High
T. Manlius-2	Repetitive Loss Property Outreach	0	1	1	1	1	1	1	1	0	1	0	1	1	1	11	High
T. Manlius-3 (former TMN-0)	Conduct and facilitate community and public education and outreach for residents and businesses	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
T. Manlius-4 (former TMN-2)	Begin the process to apply to participate in the Community Rating System (CRS) to further manage flood risk and reduce flood insurance premiums for NFIP policyholders.	1	1	1	1	1	1	0	1	1	0	1	1	1	1	12	High
T. Manlius-5 (former TMN-9)	Assist property owners with drainage issues to identify and apply for available mitigation grant funding for eligible mitigation activities	0	1	0	0	1	1	0	0	1	0	1	1	0	1	7	Medium
T. Manlius-6 (former TMN -12)	Continue to implement local drainage surveys	0	1	1	0	1	1	1	1	1	1	1	1	1	1	12	High

Table 9.19-13. Summary of Prioritization of Actions





Table 9.19-13. Summary of Prioritization of Actions

T. Manlius-7 (former TMN-13)	Continue to support existing maintenance and inspection activities of Ley Creek – North Branch	1	1	1	0	1	1	0	0	1	1	1	1	1	1	11	High
T. Manlius-8 (former TMN-14)	Conduct /support a more detailed topographic study in the critical areas of Beartrap-Ley Creek.	1	1	1	0	1	1	1	1	1	1	1	1	1	1	13	High
T. Manlius-9	Protect the OD1690 Well to the 500-year flood level.	0	1	0	1	1	1	0	1	1	1	0	0	1	1	9	High
T. Cicero-10	Protect the Meadowbrook Sewage Treatment Plant to the 500-year flood level.	0	1	0	1	1	0	1	1	1	0	0	0	1	1	8	Medium

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





9.19.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.19.8 Staff and Local Stakeholder Involvement in Annex Development

The Town of Manlius 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 Town Engineer, Supervisor, and Director of Code Enforcement. The Town Supervisor represented the town on the Steering Committee. The Town Engineer represented the community on the Onondaga County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

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

9.19.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Manlius that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Manlius has significant exposure. These maps are illustrated below.





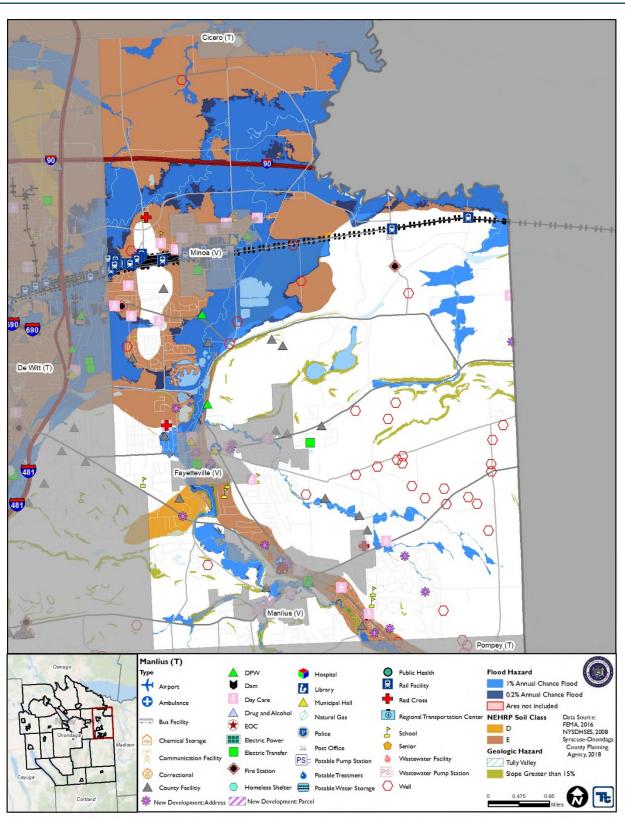


Figure 9.19-1. Town of Manlius Hazard Area Extent and Location Map



	Ac	tion W	orksheet									
					on as Greek with the Town of							
Project Name:	Sullivan (Madison Cou		earing pro	gram on the chillen	ango Creek with the Town of							
	Town of Manlius-1	intyj										
rioject Number:												
		k / Vul	nerabilit	у								
Hazard(s) of Concern:	Flood, Severe Storm											
	Chittenango Creek is i	Chittenango Creek is prone to log jams resulting in flooding. Trees along the creek may										
Description of the		ontinue to fall into the creek and cause new log jams.										
Problem:												
	Action or Project Intended for Implementation											
					og jams in Chittenango Creek.							
Description of the				e problem trees that a	are likely to fall into the creek							
Solution:	and cause additional log jam threats.											
Is this project related to a	a Critical Facility?	Yes		No 🖂								
Is this project related to		103										
located within the 100-		Yes		No 🖂								
	(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)											
Level of Protection:	To be determined			ed Benefits avoided):	Reduction in flooding along							
		Chittenango Creek.										
Useful Life:	5 years	1, 2, 4, 5										
Estimated Cost:	\$1,000 for log jam clea \$4,000 for tree trimmi		Mitigati	on Action Type:	Natural Systems Protection							
			lementat	ion								
D · · · · ·	High			Timeframe for	1 year							
Prioritization:			Implem	entation:	-							
Estimated Time Required	Log jam clearing t		Potenti	al Funding	HMGP, Municipal budget							
for Project	conducted annually.	Tree	Sources									
Implementation:	trimming 6 months											
Responsible	Highway Department		Local P	anning isms to be Used								
Organization:				ementation if any:								
	Three Alternatives (Consid										
	Action			timated Cost	Evaluation							
	No Action			\$0	Problem continues							
	Burrout properties los	atad			Property owners not							
Alternatives:	Buyout properties loc in areas prone to floo			N/A	interested in buyout and							
Alter hatives.		unig			not cost effective.							
	Remove all trees loca	ated		/.	Environmental							
	along Chittenango Cr			N/A	degradation outweighs							
	Progress Rep	ort (fo	r nlan ma	intenance)	benefit of project.							
Date of Status Report:		510 (10)	- plan me									
Date of Status Report:												
Report of Progress:												
Update Evaluation of the												
Problem and/or Solution:												
,												





	Acti	on Worksheet							
Project Name:	Sullivan (Madison Count	ee clearing program on the Chittenango Creek with the Town of ty)							
Project Number:	Town of Manlius-1								
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate							
Life Safety	0								
Property Protection	1	Project will protect areas along Chittenango Creek from flooding.							
Cost-Effectiveness	1								
Technical	1								
Political	1								
Legal	1	The town has the legal authority to complete the project							
Fiscal	0	Project requires financial support							
Environmental	1								
Social	1								
Administrative	1	Cooperative effort with Town of Sullivan							
Multi-Hazard	1	Flood, Severe Storm							
Timeline	1	1 year							
Agency Champion	1	Highway Department							
Other Community Objectives	1	Restoration of natural floodplain function							
Total	12								
Priority (High/Med/Low)	High								





	Α	ction W	orkshee	t						
Project Name:	Repetitive Loss Prop	erty Out	reach							
Project Number:	Town of Manlius-2									
Risk / Vulnerability										
Hazard(s) of Concern:	Flood									
Description of the Problem:										
Description of the Solution:Action or Project Intended for Implementation										
Is this project related to a	a Critical Facility?	Yes		No	\boxtimes					
Is this project related to located within the 100-		Yes		No	\boxtimes					
	to protect the 500-year f	lood ever	nt or the ac	tual wo	orse case da	mage	scenario, whichever is greater)			
Level of Protection:	Not Applicable		Estima (losses				Repetitive loss property owners educated on how to reduce flood risk.			
Useful Life:	1 year		Goals M	let:			2, 3			
Estimated Cost:	<\$100		Mitigat	ion Ac	tion Type	:	Education and Awareness Project			
	Plan	for Imp	lementa	tion						
Prioritization:	High		Desired Implen		eframe foi ion:	Within 6 months				
Estimated Time Required for Project Implementation:	1 month		Potenti Source	al Fur			Town budget			
Responsible Organization:	Floodplain Administ	rator		isms	ng to be Used tation if a					
	Three Alternatives	6 Consid				on)				
	Action		Es	stimat	ed Cost		Evaluation			
	No Action Conduct general out			\$ \$5	-		Problem continues More expensive, less			
Alternatives:	to the entire tov Ask non-profit organizations to co	t		\$		impactful Organizations may not be interested, may not have				
	outreach Progress Re	nort (fo	r nlan m	inter	ance) —		necessary expertise.			
Date of Status Report:	ringress Re		r plan na	anttell	ancej					
Report of Progress:										
Update Evaluation of the Problem and/or Solution:										





	Act	ion Worksheet							
Project Name:	Repetitive Loss Proper	ty Outreach							
Project Number:	Town of Manlius-2								
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate							
Life Safety	0								
Property Protection	1	Project will educate property owners on how to protect their properties from flooding							
Cost-Effectiveness	1								
Technical	1								
Political	1								
Legal	1	The Town of Manlius has the legal authority to complete the project							
Fiscal	1	<\$100							
Environmental	1								
Social	0								
Administrative	1								
Multi-Hazard	0	Flood							
Timeline	1	Within 6 months							
Agency Champion	1	Floodplain Administrator							
Other Community Objectives	1								
Total	11								
Priority (High/Med/Low)	High								

