9.39 TOWN OF RED HOUSE

This section presents the jurisdictional annex for the Town of Red House. 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 Red House'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.

9.39.1 Hazard Mitigation Planning Team

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

Table 9.39-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Tamara Booth, Town Supervisor Address: 8642 Lonkto Hollow Road, Salamanca, NY 14779 Phone Number: 716-354-9194 Email: townofredhouse@hotmail.com	Name/Title: Brian Booth, Superintendent of Highways Address: 8642 Lonkto Hollow Road, Salamanca, NY 14779 Phone Number: 716-485-6694 Email: townofredhouse@hotmail.com
NFIP Floodplain Administrator	
Name/Title: Randall Brooks, Code Enforcement Officer Address: 8642 Lonkto Hollow Road, Salamanca, NY 14779	

9.39.2 Municipal Profile

The Town of Red House lies in the northwest part of Cattaraugus County in western New York State. The Town of Red House has a total area of 55.86 square miles. The Allegheny River, Coon Creek, English Creek, McIntosh Creek, Bova Creek, Stoddard Creek, English Stoddard Creek, and Beeline Creek all flow through the town. The Allegany Reservoir and Red House Lake are significant water features of the town. The town is bordered to the north by the Town of Salamanca, to the east is the Town of Carrollton, and to the west is the Town of Coldspring. The town shares its southern border with the State of Pennsylvania. The Hamlet of Baystate and a portion of the Allegany Indian Reservation are located within the town.

Data from the 2018 U.S. Census American Community Survey indicate that town has a total population of 42, with 2.4 percent of the town population 5 years of age or younger and 23.8 percent of the town population 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 of Red House was formed in 1869. It was named after a red house situated at the mouth of the creek that provided rafters on the Allegheny River with accommodations. Lumber was the town's primary industry following its formation.

9.39.3 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 9.39-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.39-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.39-2. Recent and Expected Future Development

Type of Development	2014		2015		2016		2017		2018	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)										
	Total	**Within SFHA**	**Total**	**Within SFHA**	**Total**	**Within SFHA**	**Total**	**Within SFHA**	**Total**	**Within SFHA**
Single Family	0	0	0	0	0	0	0	0	0	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	7	0	0	0	2	0	1	0
Total	**0**	**0**	**7**	**0**	**0**	**0**	**2**	**0**	**1**	**0**

Property or Development Name	Type of Development	# of Units / Structures	Location (address and/or block and lot)	Known Hazard Zone(s)*	Description / Status of Development
Recent Major Development and Infrastructure from 2014 to Present					
Crown Castle	Comm	1	Sunfish Run Road	None	Added 3 antennas
AT&T	Comm	1	Sunfish Run Road	None	Added antenna
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
None anticipated					

SFHA Special Flood Hazard Area (1% flood event)

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

9.39.4 Capability Assessment

The Town of Red House performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6.4 (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 legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community's adaptive capacity for the impacts of climate change.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.39.4). The Town of Red House identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix H provides the results of the planning/policy document review.

Planning, Legal, and Regulatory Capability

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

Table 9.39-3. Planning, Legal, and Regulatory Capability

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete)	
Codes, Ordinances, & Requirements							
Building Code	Yes	1-2018	Local	Administration	Yes	Yes	-
Comment: None							
Zoning Code	No	-	-	-	No	-	-
Comment: None							
Subdivisions	No	-	-	-	No	-	-
Comment: None							
Stormwater Management	No	-	-	-	Yes	-	-
Comment: None							
Post-Disaster Recovery	No	-	-	-	No	-	-
Comment: None							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	Yes	-
Comment: None							
Growth Management	No	-	-	-	No	-	-
Comment: None							
Site Plan Review	No	-	-	-	No	-	-
Comment: None							
Environmental Protection	No	-	-	-	Yes	-	-
Comment: None							
Flood Damage Prevention	Unknown	-	-	-	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	-	2020-Red House-004
Comment: None							
Municipal Separate Storm Sewer System (MS4)	No	-	-	-	Yes	-	-
Comment: None							
Emergency Management	No	-	-	-	Yes	-	-

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete)	
Comment: None							
Climate Change	No	-	-	-	Yes	-	-
Comment: None							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment: None							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment: None							
Other	No	-	-	-	-	-	-
Comment: None							
Planning Documents							
Comprehensive Plan	No	-	-	-	No	-	-
Comment: None							
Capital Improvement Plan	No	-	-	-	No	-	-
Comment: None							
Disaster Debris Management Plan	No	-	-	-	No	-	-
Comment: None							
Floodplain or Watershed Plan	No	-	-	-	No	-	-
Comment: None							
Stormwater Plan	No	-	-	-	No	-	-
Comment: None							
Open Space Plan	No	-	-	-	Yes	-	-
Comment: None							
Urban Water Management Plan	No	-	-	-	No	-	-
Comment: None							
Habitat Conservation Plan	No	-	-	-	No	-	-
Comment: None							
Economic Development Plan	No	-	-	-	No	-	-
Comment: None							
Shoreline Management Plan	No	-	-	-	Yes	-	-
Comment: None							
Community Wildfire Protection Plan	No	-	-	-	No	-	-
Comment: None							
Forest Management Plan	No	-	-	-	No	-	-

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? If no - can it be a mitigation action? If yes, add Mitigation Action #. (Tetra Tech to complete)	
Comment: None							
Transportation Plan	No	-	-	-	No	-	-
Comment: None							
Agriculture Plan	No	-	-	-	Yes	-	-
Comment: None							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	No	-	-	-	-	-	-
Comment: None							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	No	-	-	-	Yes	-	-
Comment: None							
Strategic Recovery Planning Report	No	-	-	-	-	-	-
Comment: None							
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	-	-	Yes	-	-
Comment: None							
Post-Disaster Recovery Plan	No	-	-	-	No	-	-
Comment: None							
Continuity of Operations Plan	No	-	-	-	No	-	-
Comment: None							
Public Health Plan	No	-	-	-	No	-	-
Comment: None							
Other	No	-	-	-	No	-	-
Comment: None							

Table 9.39-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, Building
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.	No, a buildable land analysis is noted in Section 4 (County Profile)

Administrative and Technical Capability

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

Table 9.39-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	No	-
Maintenance programs to reduce risk	No	-
Mutual aid agreements	No	-
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	No	-
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
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	Code Enforcement Officer
Surveyor(s)	No	-
Emergency Manager	No	-
Grant writer(s)	No	-
Resilience Officer	No	-
Other	No	-

Fiscal Capability

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

Table 9.39-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	No
Capital improvements project funding	No
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	No
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	No

Financial Resources	Accessible or Eligible to Use (Yes/No)
Open Space Acquisition funding programs	No
Other	No

Education and Outreach Capability

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

Table 9.39-7. Education and Outreach Capabilities

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	No
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
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	No
Warning systems for hazard events; if yes, briefly describe.	Call Chain
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	No

Community Classifications

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

Table 9.39-8. Community Classifications

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

Note:
N/A *Not applicable*
NP *Not participating*
- *Unavailable*

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 9.39-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Flood	Medium
Landslide	Medium
Severe Storm	High
Severe Winter Storm	High
Utility Interruption	Medium
Wildfire	Medium
Flood	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*

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Randall Brooks, Code Enforcement Officer

National Flood Insurance Program (NFIP) Summary

The Town of Red House does not maintain a list of properties that have damaged by flooding. The town does not maintain a list of property owners interested in flood mitigation and there are no home or business owners that are interested in in mitigation. There are no RiskMAP projects currently underway within the town. The town has made no Substantial Disaster Declarations for recent flood events. No properties have been mitigated within the town. The town stated that flood hazard maps adequately address flood risk within the community.

The following table summarizes the NFIP statistics for the Town of Red House.

Table 9.39-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Town of Red House	0	0	$0	0

Source: *NYS DHSES 2020*
Notes: *RL* *Repetitive Loss*

Resources

The Town of Red House did not identify any floodplain management resources. There are no certified floodplain managers on staff within the town, and the town is not aware of any resources to determine possible future flooding conditions from climate change. The floodplain management staff of the Town of Red House do not need any assistance or training to support its floodplain management program. Due to the population size of the town and a lack of development, the town does not provide any NFIP administration services. The town determines if proposed development on an existing structure would qualify as a substantial improvement if the development is over 50 percent of the value of the structure. The Town of Red House is not aware of any barriers to running an effective NFIP program within the community.

Compliance History

The Town of Red House does not have any outstanding NFIP compliance violations that need to be addressed. The town has not had a recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC).

Regulatory

The Town of Red House did not identify any local laws or municipal codes for their flood damage prevention ordinance. Therefore, the town's floodplain management program does not meet the minimum requirements of the program.

Additional Areas of Existing Integration

Town Website: The Town website (http://www.redhouseny.org/) lists municipal officials and their contact information.

Evacuation, Sheltering, Temporary Housing, and Permanent Housing

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

Evacuation Routes

The Town of Red House identified Bay State Road as the town's evacuation route.

Sheltering

The Town of Red House identified the NYS Office of Parks, Recreation, and Historic Preservation – Allegheny Region administration lobby (located at 2373 ASP Route #1-Suite 3, Salamanca, NY 14779) as its designated emergency shelter. The shelter is ADA compliant and has backup power.

Temporary Housing

The Town of Red House has not identified locations for the placement of temporary housing following a disaster event. The Town of Red House will work with Cattaraugus County to identify regional locations for temporary housing (2020-Red House-007).

Permanent Housing

The Town of Red House has not identified locations for the placement of permanent housing for homes that need to be relocated out of the floodplain. A buildable land analysis is noted in Section 4 (County Profile). The Town of Red House will work with Cattaraugus County to identify regional locations for permanent housing (2020-Red House-007).

9.39.5 Hazard Event History Specific to the Town of Red House

Cattaraugus County has a history of natural and non-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 Red House's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Cattaraugus County. Table 9.39-11 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 9.39-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 27-November 8, 2012	Hurricane Sandy (FEMA-EM-3351)	Yes	Remnants of Hurricane Sandy brought strong winds and heavy rains to western and north central New York. Rainfall amounts of two to five inches were measured across the area with some area creeks reaching bankful. The high winds downed trees and power lines throughout the region. Wind gusts were measured to 60 mph.	Although the county was impacted, the Town of Red House did not report any damages.
May 13-22, 2014	Severe Storms and Flooding (FEMA-DR-4180)	Yes	Heavy showers and embedded thunderstorms trained across the western Southern tier. Rainfall amounts of one to three inches in just a few hours resulted in flash flooding across the region. Roads and culverts were washed out. Numerous roads were water-covered and closed.	Although the county was impacted, the Town of Red House did not report any damages.
November 17-26, 2014	Severe Winter Storm, Snowstorm, and Flooding (FEMA-DR-4204)	Yes	Lake effect snow resulted in heavy snowfall across the region.	Although the county was impacted, the Town of Red House did not report any damages.
July 14, 2015	Flash Flood	No	Numerous rounds of storms along a stationary cold front resulted in flash flooding. Damaging winds occurred in some areas of the county.	Although the county was impacted, the Town of Red House did not report any damages.
March 8, 2017	High Wind	No	A strong low pressure system brought strong and damaging winds to the entire region.	Although the county was impacted, the Town of Red House did not report any damages.

Notes:

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

9.39.6 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 Red House's risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.
- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

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 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 Red House. The Town of Red House 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 agreed with the calculated hazard rankings.

Table 9.39-12. Hazard Ranking Input

Flood	Landslide	Severe Storm	Severe Winter Storm	Utility Failure	Wildfire
Low	Low	High	High	High	Low

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

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 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 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 9.39-13. Potential Flood Losses to Critical Facilities

Name	Type	Exposure 1% Event	Addressed by Proposed Action
None			

Source: Cattaraugus County 2020

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Red House Town Court/Hall/Highway building does not have backup power
- DOT Bridge Inspection (11/2019) noted deficiencies in Lockto Hollow Bridge that require it to be posted for a 20-ton weight limit. This bridge provides access to the Town Hall/Garage and one permanent and one seasonal residents' access to their homes. It may need repairs or replacement
- The Town of Red House requires an up to date flood damage prevention ordinance.
- Floodplain administration staff require additional training.
- Additional public education on wildfire risk is needed.
- The Town of Red House needs to identify locations for the placement of temporary housing and permanent housing.

9.39.7 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 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 9.39-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
B2.31	Town of Red House hydraulic study of culverts	Flood	Town		No Progress	Cost		1. Include in 2020 HMP 2. Include Hydraulic Study of culverts 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		

Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Red House did not identify any mitigation projects or activities that have been completed but not included in the previous mitigation strategy in the 2014 Plan.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Red House participated in a mitigation action workshop in September 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: 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 9.39-15 summarizes the comprehensive range of specific mitigation initiatives the Town of Red House 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 9.39-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

Table 9.39-15. 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
2020-Red House-001	Lockto Hollow Bridge	1	Flood	**Problem**: DOT Bridge Inspection (11/2019) noted deficiencies in Lockto Hollow Bridge that require it to be posted for a 20-ton weight limit. This bridge provides access to the Town Hall/Garage and one permanent and one seasonal residents' access to their homes. Loss of the bridge would limit emergency response. **Solution**: The Engineer will lead an assessment of the Bridge to determine what repairs are necessary. Once a course of action has been identified, the town will carry out the improvements.	No	None	Within 2 years	Engineer	TBD by assessment	Preservation of access, emergency response	CHIPS, town budget	High	SIP	PP, ES
2020-Red House-002	Town Court/ Hall/Highway Backup Power	1	Utility Failure	**Problem**: The Red House Town Court/Hall/Highway building does not have backup power. **Solution**: The Town Engineer will research what size generator is necessary to supply backup power to the Town Court/Hall/Highway building. The town will then install a backup power generator and necessary electrical components.	Yes	None	Within 5 years	Engineer	$50,000	Ensures continuity of operations of Town Court/Hall/Highway building	FEMA HMGP, USDA Community Facilities Grant Program, EMPG, Municipal Budget	High	SIP	ES
2020-Red House-003	Hydraulic study of culverts	1, 3	Flood, Severe Storm	**Problem**: The culverts in the town may or may not be properly sized. Improper sized culverts can result in culvert damages, failure, and flooding. **Solution**: The Town of Red House will conduct a	No	None	Within 5 years	Engineer	$5,000 for study, $5-10,000 per upgrade	Town able to target culvert replacements, replace and upsize necessary culverts to reduce flooding.	HMGP, CHIPS, town budget	High	LPR, SIP	SP

Table 9.39-15. 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
				hydraulic study of culverts to identify culverts that require upgrades. Once culverts in need of upgrade are identified, the town will apply for funding support and carry out the upgrades										
2020-Red House-004	Flood Damage Prevention Ordinance	1, 2	Flood	**Problem**: The Town of Red House requires an up to date flood damage prevention ordinance. **Solution**: The town will adopt an updated flood damage prevention ordinance to maintain NFIP compliance.	No	None	Within 6 months	FPA	Staff time	NFIP compliance	Town budget	High	LPR	PR
2020-Red House-005	FPA Training	3	Flood	**Problem**: Floodplain administration staff require additional training. **Solution**: The Town FPA and staff who assist with floodplain administration will attend trainings and workshops offered by FEMA and NYS to develop additional floodplain administration skills.	No	None	1 year	Administration	Staff time, potential attendance fees	Increased quality of floodplain administration	Town budget	High	LPR	PR
2020-Red House-006	Wildfire Outreach	3	Wildfire	**Problem**: Additional public education on wildfire risk is needed. **Solution**: The town will conduct outreach to residents, business owners, and organizations about what they can do to protect their structures from wildfires.	No	None	1 year	Administration	$1,000	Increased wildfire awareness and personal actions taken to mitigate risk	Town budget	High	EAP	PI
2020-Red House-007	Identification of Temporary and Permanent	1	All Hazards	**Problem**: The Town of Red House needs to identify locations for the placement of temporary housing and permanent housing.	No	None	Within 6 months	Administration	Staff time	Temporary and permanent housing locations identified	Town budget	High	LPR	ES

Table 9.39-15. 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
	Housing Locations			**Solution**: The Town of Red House will work with Cattaraugus County to identify regional locations for temporary and permanent housing.										

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

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

FMA	*Flood Mitigation Assistance Grant Program*
HMGP	*Hazard Mitigation Grant Program*
BRIC	*Building Resilient Infrastructure and Communities*

Timeline:
The time required for completion of the project upon implementation

Cost:
The estimated cost for implementation.

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

Critical Facility:
Yes 💧 *Critical Facility located in 1% floodplain*

Mitigation Category:

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

CRS Category:

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

Table 9.39-16. 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 Objectives	Total	High / Medium / Low
2020-Red House-001	Lockto Hollow Bridge	1	1	1	1	1	1	0	1	1	1	1	1	1	1	13	High
2020-Red House-002	Town Court/ Hall/Highway Backup Power	1	1	1	1	1	1	0	1	1	1	0	0	1	1	11	High
2020-Red House-003	Hydraulic study of culverts	0	1	1	1	1	1	0	1	1	1	1	0	1	1	11	High
2020-Red House-004	Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020-Red House-005	FPA Training	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2020-Red House-006	Wildfire Outreach	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2020-Red House-007	Identification of Temporary and Permanent Housing Locations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High

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

9.39.8 Proposed Mitigation Action Types

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

Table 9.39-17. Analysis of Mitigation Actions by Hazard and Category

	FEMA				CRS					
Hazard	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Flood	X	X			X	X			X	X
Landslide	X									X
Severe Storm	X	X							X	X
Severe Winter Storm	X									X
Utility Interruption	X	X								X
Wildfire	X			X			X			X

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

9.39.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Red House 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: Town Supervisor, Superintendent of Highways, and Code Enforcement Officer. The Supervisor represented the community on the Cattaraugus 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 (Meeting Documentation).

9.39.10 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Red House 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. The maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Red House has significant exposure. These maps are illustrated below.

Figure 9.39-1. Town of Red House Hazard Area Extent and Location Map 1

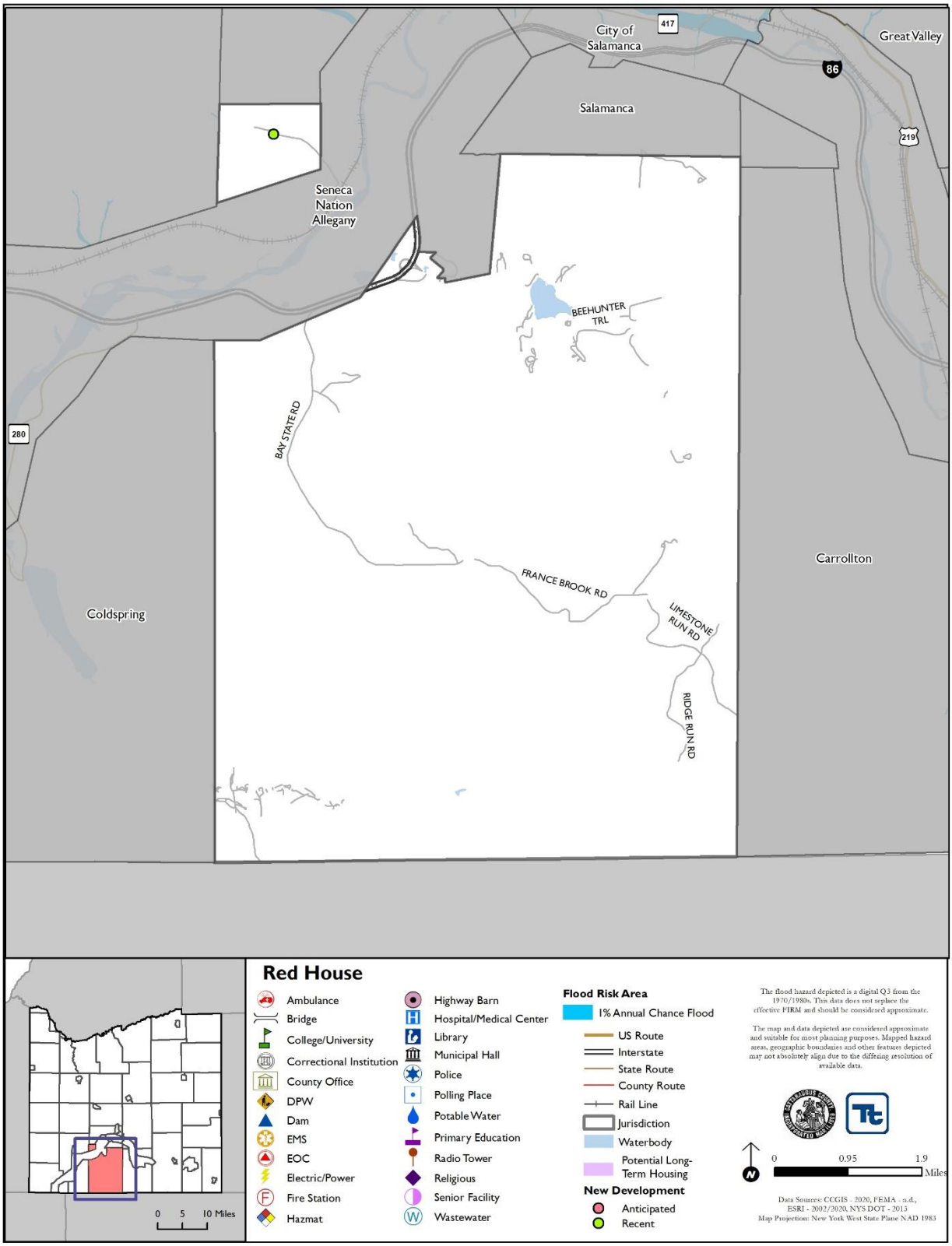
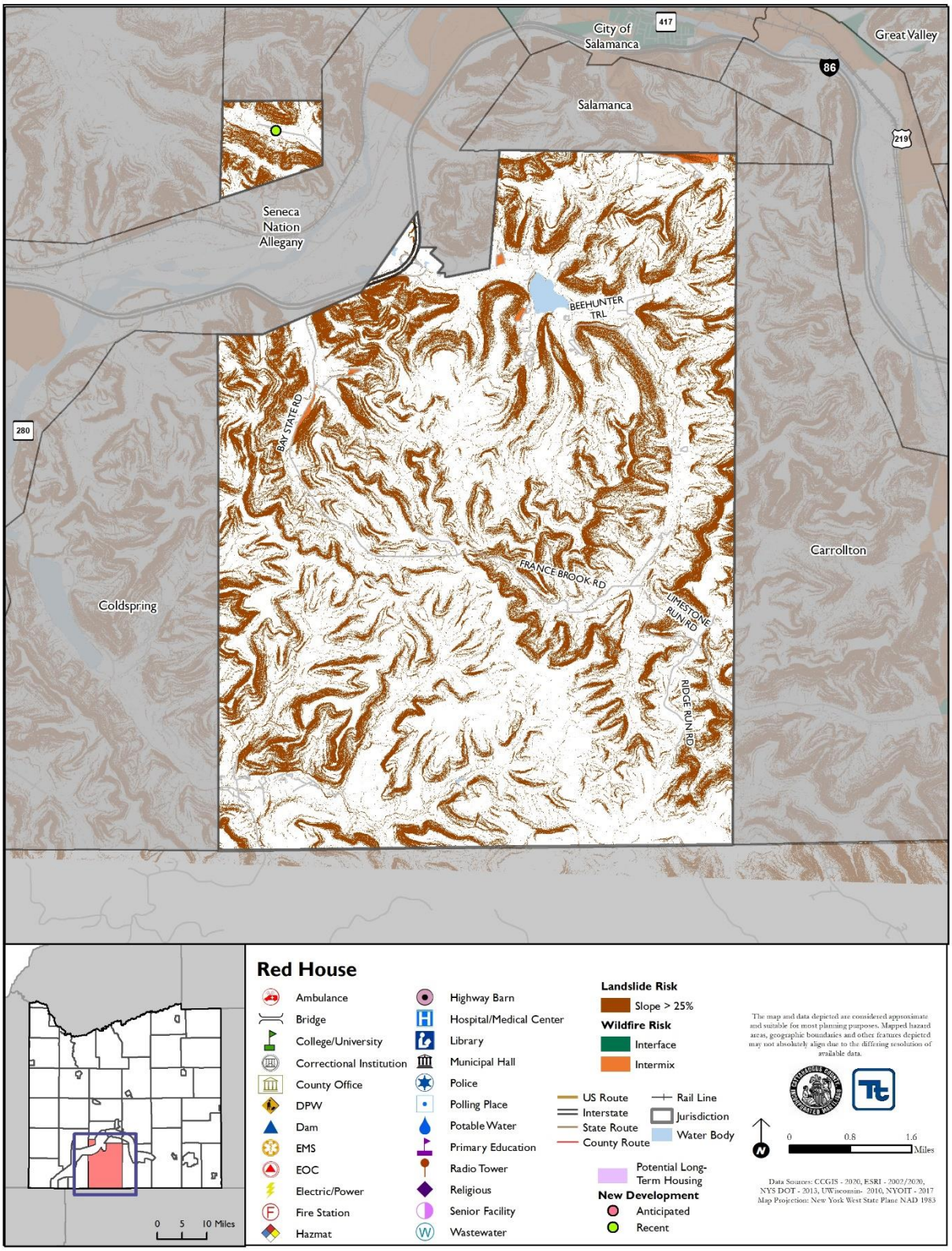


Figure 9.39-2. Town of Red House Hazard Area Extent and Location Map 2



Action Worksheet			
Project Name:	Town Court/Hall/Highway Backup Power		
Project Number:	2020-Red House-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Utility Failure		
Description of the Problem:	Backup power sources are necessary to maintain critical services for critical facilities. The Red House Town Court/Hall/Highway building does not have backup power.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Engineer will research what size generator is necessary to supply backup power to the Town Court/Hall/Highway building. The town will then install a backup power generator and necessary electrical components.		
Is this project related to a Critical Facility?	Yes ☒	No ☐	
Is this project related to a Critical Facility located within the Special Flood Hazard Area?	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:	N/A	**Estimated Benefits (losses avoided):**	Ensures continuity of operations of Town Court/Hall/Highway building
Useful Life:	20 years	**Goals Met:**	1
Estimated Cost:	$50,000	**Mitigation Action Type:**	Structure and Infrastructure Projects (SIP)
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Within 5 years
Estimated Time Required for Project Implementation:	1 year	**Potential Funding Sources:**	FEMA HMGP, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program, Municipal Budget
Responsible Organization:	Engineer	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation, Emergency Management

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Problem continues.
	Install solar panels	$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed

Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet		
Project Name:	Town Court/Hall/Highway Backup Power	
Project Number:	2020-Red House-002	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	Project will protect critical services of Red House Town Court/Hall/Highway building
Property Protection	1	Project will protect Red House Town Court/Hall/Highway building from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The town has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Utility Failure
Timeline	0	Within 5 years
Agency Champion	1	Engineer
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	

Action Worksheet			
Project Name:	Hydraulic study of culverts		
Project Number:	2020-Red House-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The culverts in the town may or may not be properly sized. Improper sized culverts can result in culvert damages, failure, and flooding.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town of Red House will conduct a hydraulic study of culverts to identify culverts that require upgrades. Once culverts in need of upgrade are identified, the town will apply for funding support and carry out the upgrades		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is this project related to a Critical Facility located within the Special Flood Hazard Area?	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:	At least a 5-year event; will be determined once project is complete	**Estimated Benefits (losses avoided):**	Reduction in culvert damages and flood risk
Useful Life:	30 years	**Goals Met:**	1
Estimated Cost:	$5,000 for study, $5-10,000 per upgrade	**Mitigation Action Type:**	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	Within 5 years
Estimated Time Required for Project Implementation:	1 year	**Potential Funding Sources:**	HMGP, BRIC, CHIPS, Town budget
Responsible Organization:	Public Works	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Remove road	$20,000	Roadway cannot be removed
	Relocate road to another location	$50,000	Roadway will still need to cross stream, costly

Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet		
Project Name:	Hydraulic study of culverts	
Project Number:	2020-Red House-003	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	0	
Property Protection	1	Project will protect roadway from flooding, culvert damages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The town has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	Within 5 years
Agency Champion	1	Public Works
Other Community Objectives	1	
Total	11	
Priority (High/Med/Low)	High	