9.9 Town of German

This section presents the jurisdictional annex for the Town of German. 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 German'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.

9.9.1 Hazard Mitigation Planning Team

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

Table 9.9-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Daniel Jack, Town Supervisor PO Box 237, Cincinnatus NY 13040 607-656-4137 or 607-423-2941 dannyjack0504@gmail.com	Bob Turshman, Highway Superintendent 232 Fry Rd, Cincinnatus NY 13040 607-863-3227 or 607-863-4568 germantownbarn@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Chenango County Code Enforcement 5 Court Street Norwich, NY 13815 607-337-1975 StevenF@co.chenango.ny.us	

9.9.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 370.

The Town of German is located along the western border of Chenango County adjoining Cortland County. The primary County Roads 2 and 5 intersect at German Four corners.

The first settlers arrived in the area about 1796. The Town of German was founded as he "Town of Brackel" from the Town of DeRuyter in 1816. Thereafter it was reduced by the formation of Otselic, Lincklaen, and a part of Pitcher. A maximum population of between 800 and 1200 was achieved in the late 1800s followed by a gradual then precipitous decline in the 1930s. Today the Town of German comprises 28.4 mi^2, includes 39 miles of town roads to be maintained, and incorporates State Land totaling about 43% of the town's area.

A Town Board of four members is the primary governing body. The Town Supervisor provides a fifth voting member when necessary. This governing body will assume responsibility for adoption and implementation of this plan. The Offices of Town Clerk, Justice, Historian, Sanitary Inspector, Dog Control and Board of Assessors are provided.

9.9.3 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 9.9-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.9-1 at the end of this

annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.9-2. 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	-
Multi-Family	0	-	0	-	0	-	0	-	0	-
Other (commercial, mixed-use, etc.)	0	-	0	-	0	-	0	-	0	-
Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**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 2015 to Present					
None Identified at this time					
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years					
None Identified at this time					

SFHA Special Flood Hazard Area (1% flood event)

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

9.9.4 Capability Assessment

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

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

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.9.4). The Town of German identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix G provides the results of the planning/policy document review and the answers to integration survey questions.

Planning, Legal, and Regulatory Capability

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

Table 9.9-3. 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? Describe how in comments.	Provide Mitigation Action # if applicable.
Codes, Ordinances, & Requirements							
Building Code	Yes	Adopted 5/2004 and 5/2005	Local, State	Planning Department	Yes	N/A	N/A
Comments: NYS Uniform and Energy Code 2020; Regulated at local and state levels. The Uniform Code (19 NYCRR Parts 1219 to 1229) now includes the 2015 editions of the code books published by the International Code Council (the "2015 I-Codes"), as amended by the publication entitled the 2017 Uniform Code Supplement (publication date: July 2017). Article 18 of the Executive Law (§§ 370 through 383) establishes the State Fire Prevention and Building Code Council, directs the Code Council to promulgate and maintain the Uniform Code, and charges each city, town, and village in the State (with the exception of the City of New York) with the duty of administering and enforcing the Uniform Code within its municipal boundaries.							
Zoning Code	No	-	Local	-	No	-	-
Comment: Article IX, Section 2, of the State Constitution and by the various state enabling statutes. In New York, the zoning enabling acts continue to require that zoning be undertaken "in accord with a well-considered plan"11 or "in accordance with a comprehensive plan."12 Unless the town, city or village has adopted a comprehensive plan document using the more recently-enacted statutes (described later herein), local officials must refer to the extensive body of case law to determine how zoning can meet the more general "comprehensive plan" requirement.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at local level							
Subdivision Regulations	Yes	Adopted 11/2004	Local	Town Board	No	No	-
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified i a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730).							
Stormwater Management	No	Subdivision Regulations	Local, State	NYSDEC permitting	Yes	-	-
Comment: Codes Rules and Regulations of the State of New York, Title 6. Department of Environmental Conservation, Chapter X. Division of Water Resources, Subchapter A. General Article 3. State Pollutant Discharge Elimination System, Part 750. State Pollutant Discharge Elimination System(SPDES) Permits. New York Environmental Conservation Law, Article 17, Titles 7, 8 and Article 70. New development and redevelopment projects that result in a land disturbance of one acre or greater, including projects less than one acre if they are part of a larger common plan of development or sale or if controlling such activities in a particular watershed is require a permit by the Department							
Post-Disaster Recovery	Yes	Not Indicated	Local	Chenango County EMS	No	-	-
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	No	-
Comment: In addition to facing potential liability for failing to disclose under the exceptions to "caveat emptor," a home seller must make certain disclosures under the law or pay a credit of $500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.							
Growth Management	No	-	Local	-	No	-	-
Comment: In New York State, virtually all land use regulation, which is the primarily tool for Smart Growth, takes place at the municipal level (i.e., in a city, village or town government). Land use planning is also primarily a municipal function. While State law provides for certain planning functions at the county or regional level, these mechanisms are largely advisory, whereas municipal planning is directly related to land use regulation.							

	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? Describe how in comments.	Provide Mitigation Action # if applicable.
Site Plan Review	Yes	Adopted 5/2004	Local	Town Manufactured Home Law	No	No	-
Comment: The authority to require site plan review is derived from the State enabling Statutes (General City Law s. 27-a, Town Law s. 247a, Village Law s. 7-725a)The local legislative body has the power to delegate site plan review to the planning board, zoning board, etc.							
Environmental Protection	Yes	Title 6 NYCRR Part 617	State	Not Indicated	Yes	No	-
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019							
Flood Damage Prevention	Yes	Adopted 1987, Amended 11/11/2010	Federal, State, Local	Administered by County Code Official under an MOU with Town	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	N/A
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. • Local Law of the year 2010 entitled Flood Damage Prevention, enacted by the Town of German. The Town Board of the Town of German finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of German and that such damages may include: destruction or loss of private and public housing, damage to public facilities, both publicly and privately owned, and injury to and loss of human life. It is the purpose of this local law to: (1)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; (2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters; (4) control filling, grading, dredging and other development which may increase erosion or flood damages; (5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and; (6) qualify and maintain for participation in the National Flood Insurance Program. • The areas of special flood hazard for the Town of German, Community Number 361587, are identified and defined on the following documents prepared by the Federal Emergency Management Agency, namely, Flood Insurance Rate Map Panel Numbers: 36017C0190E, 36017C0195E,36017C0305E & 36017C0310E whose effective date is November 26, 2010. • The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer A floodplain development permit is hereby established for all construction and other development to be undertaken in areas of special flood hazard in this community for the purpose of protecting its citizens from increased flood hazards and insuring that new development is constructed in a manner that minimizes its exposure to flooding. It shall be unlawful to undertake any development in an area of special flood hazard, as shown on the Flood Insurance Rate Map enumerated in Section 3.2, without a valid floodplain development permit. • The following standards apply to all new subdivision proposals and other proposed development in areas of special flood hazard; (1) Proposals shall be consistent with the need to minimize flood damage; (2) Public utilities and facilities such as sewer, gas, electrical and water systems shall be located and constructed so as to minimize flood damage; and, (3) Adequate drainage shall be provided to reduce exposure to flood damage. No new construction, substantial improvements or other development in the floodway (including fill) shall be permitted unless a technical evaluation determines no increase in flood levels. • New and substantially improved residential and non-residential structures located in areas of special flood hazard, shall have the lowest floor (including basement) elevated to or above two feet above the base flood elevation. • In order to prevent potential flood damage to certain facilities that would result in serious danger to life and health, or widespread social or economic dislocation, no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community's Flood Insurance and implement this local law by granting or denying floodplain development pennits in accordance with its provisions.							
Municipal Separate Storm Sewer System (MS4)	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.							

	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? Describe how in comments.	Provide Mitigation Action # if applicable.
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Chenango County Office of Emergency Management	Yes	No	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.							
Climate Change	No	NYS Executive Law, Article 75	Local	-	Yes	-	-
Comment: The environmental conservation law was amended by adding ARTICLE 75 - CLIMATE CHANGE under Assembly Bill A. 8429 and Senate Bill S. 6599, dated June 18, 2019.							
Disaster Recovery Ordinance	Yes	Not Indicated	Local	Chenango County EMS	No	No	-
Comment:							
Disaster Reconstruction Ordinance	Yes	Not Indicated	Local	Chenango County EMS	No	No	-
Comment:							
Other	Yes	See Below	-	-	-	-	-
Comment: • Road Conservation Law. 1/2006							
Planning Documents							
Comprehensive Plan	No	General City Law section 28a(3)(a); Town Law section 272-a(2)(a); Village Law section 7-722(2)(a)	Local	-	No	-	-
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level							
Capital Improvement Plan	No	-	Local	-	No	-	-
Comment: A local government can decide to adopt its capital plan pursuant to General Municipal Law Section 99-g.							
Disaster Debris Management Plan	No	-	Local	-	No	-	-
Comment: Based on past experience with disaster management, it is apparent that local municipalities that have an Emergency Debris Management Plan in place are able to manage their emergency response in a more comprehensive and coordinated manner and are able to address recovery and clean up faster and more efficiently than those without plans. With that in mind, the Department developed an Emergency Management Plan Tool Kit. The NYSDEC (Department) strongly urges all municipal officials to conduct pre-disaster planning and prepare emergency debris management plans. The Department recommends that these plans should be reviewed and updated annually.							
Floodplain or Watershed Plan	Yes	Not Indicated	State	NYS Dept of Environmental Conservation	No	No	-
Comment: The State Pollutant Discharge Elimination System (SPDES) permit program is a primary way the DOW implements its watershed protection and restoration activities.							
Stormwater Plan	Yes	Subdivision Regulations	Local, State	NYSDEC permitting	No	See above	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space	No	NYS	Local	-	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? Describe how in comments.	Provide Mitigation Action # if applicable.
Plan		Constitution - Article 9; Statute of Local Governments. Section 10 (7)					
Comment: Planning boards prepare or oversee the preparation of local comprehensive plans, which should include an open space element. The primary purpose of a local open space plan is to cause the important open lands in the community to be conserved for open space uses.							
Urban Water Management Plan	No		Local	-	No	-	-
Comment:							
Habitat Conservation Plan	No	-	Local	-	No	-	-
Comment: Laws related to habit protection and biodiversity control the use and application of certain pesticides, demolition projects and clearing of vegetated areas. Identifying certain critical habitat areas could be included in the Comprehensive Plan. Critical Habitat is a part of certain State and Federal Permitting. The State had a Wildlife Action Plan requires to maintain eligibility for the State Wildlife Grant Program.							
Economic Development Plan	No	-	Local	-	No	-	-
Comment: An Economic Development Plan may be prepared by a local government and be included or separate from the Comprehensive plan.**May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones.							
Shoreline Management Plan	N/A	-	Local	-	Yes	-	-
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	No	-	Local	-	Yes	-	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers**.**							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Chenango County Office of Emergency Management	Yes	Yes	N/A

	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? Describe how in comments.	Provide Mitigation Action # if applicable.
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Not Indicated	Local	Chenango County Office of Emergency Management	Yes	No	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	Yes	Not Indicated	Local	Chenango County EMS	No	-	-
Comment:							
Continuity of Operations Plan	No	-	Local	-	No	-	-
Comment: According to the FEMA, "State and local governments should consider developing or updating contingency plans for the continuity of operations (COOP) of vital government functions. Jurisdictions must be prepared to continue their minimum essential functions throughout the spectrum of possible threats from natural disasters through acts of terrorism. COOP planning facilitates the performance of State and local government and services during an emergency that may disrupt normal operations.							
Public Health Plan	Yes	2019-2021 Community Health Needs Assessment and Community Health Improvement Plan	County	Chenango County Health Department	Yes	Yes	N/A
Comment: Addresses need for heating/cooling centers, lack of homeless shelters and homeless services, vulnerable populations and need for access to community lifelines such as medical services and hospitals, emergency shelters, grocery/food stores. References to communicable diseases as a concern within the County, with objectives to coordinate vaccinations, testing, and healthy behaviors.							
Other	Yes	-	-	-	-	-	-
Comment: • Emergency Response Plan							

Table 9.9-4. Development and Permitting Capability

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

Administrative and Technical Capability

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

Table 9.9-5. 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	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	County-wide mutual aid
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	Chenango County Office of Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	Agreement with Inland Marine Corp. Chenango County Public Works Department
Planners or engineers with an understanding of natural hazards	Yes	Chenango County Office of Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Will Contract when Necessary
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	Chenango County Office of Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil & Water Department
NFIP Floodplain Administrator (FPA)	Yes	Town Clerk
Surveyor(s)	Yes	Chenango County Public Works department
Emergency Manager	Yes	Chenango County Office of Emergency Management
Grant writer(s)	Yes	Chenango County Office of Planning & Development; Cornell Cooperative Extension, Norwich
Resilience Officer	No	-
Other	-	-

Fiscal Capability

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

Table 9.9-6. 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	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No

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

Education and Outreach Capability

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

Table 9.9-7. 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?	Yes, Hired Company to manage
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	Yes, Facebook
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.	Yes; Chenango County Office of Emergency Management
Natural disaster/safety programs in place for schools; if yes, briefly describe.	Yes; Chenango County Office of Emergency Management
Other	No

Community Classifications

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

Table 9.9-8. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	NP	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	NP	N/A
NYSDEC Climate Smart Community	No	NP	N/A
Storm Ready Certification	No	NP	N/A
Firewise Communities classification	No	NP	N/A
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 2016). 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 9.9-9. Adaptive Capacity

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

**High* *Capacity exists and is in use*
Medium *Capacity may exist; but is not used or could use some improvement*
Low *Capacity does not exist or could use substantial improvement*
Unsure *Not enough information is known to assign a rating*

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

Steve Fox Chenango County Code Enforcement

National Flood Insurance Program (NFIP) Summary

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

Table 9.9-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of German	1	0	$0	0	-	0

Source: *FEMA 2019*
Notes: *Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of July 31, 2019. The total number of repetitive loss properties does not include severe repetitive loss properties. SRL property information was not included in the available data set.*
RL *Repetitive Loss; SRL Severe Repetitive Loss*

Resources

The County Building Code Enforcement Officer, Steve Fox, serves as the NFIP Floodplain Administrator and Building Inspector for the majority of municipalities within Chenango County.

Duties and responsibilities of the Code Enforcement Officer/NFIP FPA are permit review, and inspections for new construction and compliance with New York State and FEMA requirements. Records of losses and inspections, and development permits are kept in paper copies in the Code Enforcement office. The NYS DEC keeps records of repetitive loss properties within the County. The Town Board and Supervisor approve Land Subdivisions, per a 2005 amendment to the Town of German Subdivision Regulations.

The County Planning Board preforms NYS 239 Reviews for required building permits.

Steve Fox has undergone the Certified Floodplain Manager (CFM) courses but did not take the exam and is not certified.

Compliance History

The community is currently in good standing in the NFIP and has no outstanding compliance issues. The Town of German has not completed any Community Assistance Visits (CAV), due to its location outside of the SFHA.

Regulatory

The Town of German Flood Damage Prevention Ordinance (FDPO) was last updated on November 11, 2010. The Village's floodplain management program meets minimum requirements. Floodplain management is supported by the actions of Chenango County Code Enforcement.

Additional Areas of Existing Integration

- The Town prohibits construction of structures within the 100-year floodplain.
- The Town maintains compliance and good standing with the NFIP.
- The Town works to maintain high regulatory standards to manage flood risk in accordance with NYS freeboard requirements.
- The Town maintains mutual aid agreements with neighboring communities and the County.
- The Town continues to develop, enhance, and implement existing emergency plans.
- The Town supports all county-wide and municipal initiatives identified in the HMP.

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

Evacuation routes are specific to hazard event and routes will vary according to the location and type of event. Residents should seek up-to-date information from the Chenango County Office of Emergency Management.

Sheltering

The Town of German has not designated emergency shelters but will evaluate the use of the municipal hall to serve as a warming/cooling center in the event of power outages. In the event that sheltering is needed shelters will be determined at the time of an emergency, in accordance with the County CEMP.

Temporary Housing

The Town of German has not identified sites for the placement of temporary housing for residents displaced by a disaster or potential sites suitable for relocating structures out of the floodplain and/or building new homes once properties in the floodplain are acquired. In the event temporary housing is needed, the Town will work with the county to find suitable locations using the locations identified in Section 4 (County Profile) Table 4-9 as a starting point.

Permanent Housing

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

9.9.5 Hazard Event History Specific to the Town of German

Chenango County has a history of natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. The Town of German's history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Chenango County. Table 9.9-11 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 9.9-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 2018	Severe Flooding DR-4197	Yes	Flooding, washed out roads etc..	Damage to roads culvert etc..
October 2019	Severe Flooding	Yes	Flooding, washed out roads etc..	Damage to roads culvert etc..

Notes:

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

9.9.6 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 German'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.

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 even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

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

Table 9.9-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
None identified				

Source: HAZUS-MH 4.2

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Chenango 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 German. The Town of German 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 of German indicated the following:

- Agreement with calculated rankings – no changes made.

Table 9.9-13. Hazard Ranking Input

Disease Outbreak	Drought	Extreme Temperature	Flood	Harmful Algal Bloom	Invasive Species	Natural Gas	Severe Storm	Severe Winter Storm	Wildfire
Medium	Medium	Medium	Medium	Low	Medium	Medium	High	Medium	Medium

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

**The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality*

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Hazard problems in the Town of German are largely caused by flood damage to town roads and culverts.

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

- No Response

9.9.7 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 2015 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.

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Table 9.9-14. 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 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TGM – 1 (Former TGM-1)	Beaver Dam Monitoring and Control	Flood	Town Highway Department, NYS DEC for roads adjoining State land	Control the flooding effect of beaver dams on town roads by installing bridges in place of culverts and elevating roads in areas of chronic flooding. Though parts of Shingle St., Pheasant Farm and Jones Hill roads have been repaired/improved, work on them continues. New beaver activity as well as new damage to Jones Hill is continuing problems. While an ongoing project, bridge building and road elevation would require materials cost beyond town capability.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 2 (Former TGM -2)	Continue multi-year plan	Severe Winter Storm, Severe Storm, Wildfire	Town Highway Department, NYS DEC for roads adjoining State land	Continue multi-year plan for removal of overgrown trees and new ditching on town roads right of ways, specifically on seasonal roads, for better sun penetration and road surface drying.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 3 (Former TGM -3)	Continue the installation of larger road culverts	Flood, Severe Winter Storm, Severe Storm	Town Highway Department	Continue the installation of larger road culverts on all town roads to improve stormwater management	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
TGM – 4 (Former TGM -4)	Improve the ditching on all town roads	Flood, Severe Winter storm, Severe Storm	Town Highway Department, NYS DEC for roads adjoining State land	Improve the ditching on all town roads to increase stormwater management and road life. While an ongoing regular maintenance project exists, town personnel, funding and time do not this increasing problem to fully be addressed. Almost half of residential town roads have been re-ditched in the last five years. See specific activities below.	Ongoing Capability	Cost	-	It's Part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 5	Large Culvert Replacement	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Excavate and evaluate culvert integrity, rebuild rock retaining walls and roadbed only if culvert structure is determined to be ok	Ongoing	Cost	-	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 6	Pheasant Farm Road Drainage Improvements	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Clear trees, raise roadbed, cut ditches.	Ongoing Capability	Cost	-	It's part of the Town's day-to-day operations
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	
TGM – 7	Jones Hill Road Drainage Improvements	Flood, Severe Storm, Severe Winter Storm	Town Highway Department	Continue to increase the number and size of culverts to reduce the speed of flow in the roadside ditches to relieve plugging and reduce road surface destruction in big storms. Work with residents to reduce drainage into the	Ongoing	Cost	-	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more information.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
				roadside ditches.				
TGM – 8	Highway Garage Mitigation	Flood, Severe Storm, Severe Winter Storm	Town of German Town Board and Highway Department	The Town is saving funds to either improve or replace its poor condition and undersized highway garage. Unfortunately, though the Town could borrow to fund construction, this would push the tax levy well beyond the 2% cap. Since grant funds are not available for municipal capital projects, it will be up to the townspeople to decide if the spending is acceptable.	Ongoing	Cost Level of Protection Damages Avoided; Evidence of Success	- - -	Discontinue project.
TGM – 9 (Former TGM -6, -7)	Support and participate in Federal, State and County-led programs and initiatives intended to build local and regional mitigation and risk-reduction capabilities (see Section 9.1), specifically: • Attend regional workshops, trainings and continuing education as made available by the County with FEMA, ISO and NYS DHSES support, and as appropriate for the community, anticipated to included: NFIP for Insurance Agents, Lending Institutions and Realtors; Floodplain Management and the Certified Floodplain Managers (CFM) certification. • Public education and awareness program for floodplain residents. • Updates to NFIP floodplain mapping. • Promotion of "Firewise" programs in the County. Establishment of an interagency program involving Public Health/DSS/Area Agency on Aging to identify vulnerable populations (elderly, homebound, homeless), and the development/enhancement of plans, programs and facilities to meet the specific needs of these populations.							
	See above	All Hazards	Chenango County, as supported by relevant local department leads	See above	Ongoing Capability	Cost Level of Protection Damages Avoided; Evidence of Success	- - -	It's Part of the Town's day-to-day operations
TGM-10	Fry Road	Flood, Severe	Town of German – Highway	A large culvert must be replaced and enlarged soon to prevent road	Ongoing	Cost Level of Protection	- -	The Town will continue culvert updates as part of the 2021 mitigation strategy. See mitigation actions below for more

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2021 HMP or Discontinue 2. If including action in the 2021 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Culvert	Storm	Department	degradation during storms and flooding of two residences immediately below the intersection.		Damages Avoided; Evidence of Success	-	information.

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Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of German has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2015 Plan:

- None Identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of German worked with the consultant and the Chenango County Department of Planning & Development after the mitigation action workshop held on January 13, 2021. They were provided access to FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards including FEMA 'Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards' (January 2013); Types of Mitigation Actions; and a link to the FEMA Individual and Community Preparedness Division (ICPD) Protective Actions Research website (https://community.fema.gov/ProtectiveActions/s/).

Table 9.9-15 summarizes the comprehensive-range of specific mitigation initiatives the Town of German 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 9.9-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.

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Table 9.9-15. 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
2021-T. German-001	Birdlebough – Gramch Road Culverts		Flood, Severe Storm	**Problem**: Birdlebough – Gramch Road has experienced historic washouts of approximately five culvert pipes during heavy rains and storm events. **Solution**: The Town will increase the size of the five existing culverts from 11-13" to a more appropriate 24" diameter size that will be able to handle increased water flows and prevent washouts and road closures. The new pipe sizes will be able to handle the increased water without having to increase costs and elevate the roadway.	No	No	Short, 6 months	Highway Department	Medium, Estimated $7,000/culvert plus labor and materials	High, reduce road washouts and floods	FEMA HMA	High	SIP	PP
2021-T. German-002	Smith-Kingsman Road Culvert		Flood, Severe Storm	**Problem**: Due to beaver issues and dam failures, the 3 foot culvert pipe on Smith-Kingsman Road has a tendency to overflow and erode the road. **Solution**: The Town will put in an additional 3 foot culvert pipe to help with water flow and eliminate flooding and erosion concerns. This pipe will have a screen due to the beaver debris.	No	No	Short, within 1 year	Highway Department	Medium	High, Reduce erosion concerns	FEMA HMA	High	SIP	PP

Notes:

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

Acronyms and Abbreviations:

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

Potential FEMA HMA Funding Sources:

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

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.

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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*

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Table 9.9-16. 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
2021-T. German-001	Birdlebough – Gramch Road Culverts	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High
2021-T. German-002	Smith-Kingsman Road Culvert	1	1	1	1	1	1	0	1	1	1	1	1	1	0	12	High

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

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9.9.8 Proposed Mitigation Action Types

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

Table 9.9-17. Analysis of Mitigation Actions by Hazard and Category

	FEMA				CRS					
Hazard	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak										
Drought										
Extreme Temperatures										
Flood		001, 002				001, 002				
Harmful Algal Bloom										
Invasive Species										
Natural Gas										
Severe Storm		001, 002				001, 002				
Severe Winter Storm										
Wildfire										

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

9.9.9 Staff and Local Stakeholder Involvement in Annex Development

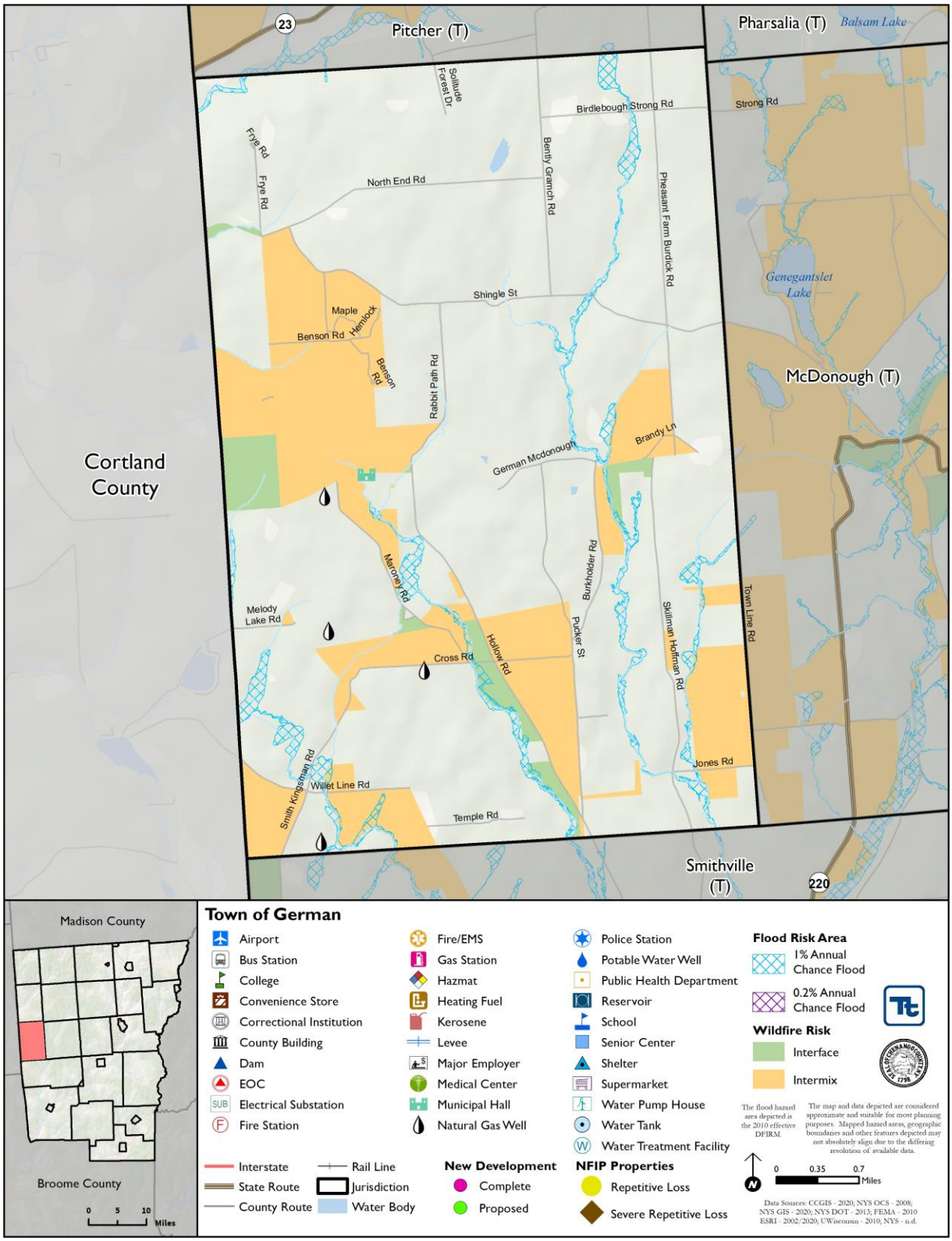
The Town of German followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many Town departments, including: the Supervisor's Office. The Town Supervisor represented the community on the Chenango 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).

9.9.10 Hazard Area Extent and Location

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

Figure 9.9-1. Town of German Hazard Area Extent and Location Map



Action Worksheet			
Project Name:	2021-T. German-001		
Project Number:	Birdlebough – Gramch Road Culverts		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Birdlebough – Gramch Road has experienced historic washouts of approximately five culvert pipes during heavy rains and storm events.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will increase the size of the five existing culverts from 11-13" to a more appropriate 24" diameter size that will be able to handle increased water flows and prevent washouts and road closures. The new pipe sizes will be able to handle the increased water without having to increase costs and elevate the roadway.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is the critical facility located in the 1% annual chance flood 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:	100-year flood	**Estimated Benefits (losses avoided):**	High, reduce road washouts and floods
Useful Life:	40 years	**Goals Met:**	2, 3, 4, 6
Estimated Cost:	Medium, Estimated $7,000/culvert plus labor and materials	**Mitigation Action Type:**	SIP
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	1 year
Estimated Time Required for Project Implementation:	6 months	**Potential Funding Sources:**	FEMA HMA
Responsible Organization:	Highway Department	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation Planning

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Elevate entire roadway	$5M+	Unfeasible, not cost-effective
	Replace culverts with bridges	N/A	Unfeasible, construction will disturb roadway for many years

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

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Action Worksheet		
Project Name:	2021-T. German-001	
Project Number:	Birdlebough – Gramch Road Culverts	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department can install new culverts
Political	1	
Legal	1	
Fiscal	0	Town needs funding support
Environmental	1	No anticipated issues
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, severe storm
Timeline	1	
Agency Champion	1	Highway Superintendent
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	

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Action Worksheet			
Project Name:	2021-T. German-002		
Project Number:	Smith-Kingsman Road Culvert		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Due to beaver issues and dam failures, the 3 foot culvert pipe on Smith-Kingsman Road has a tendency to overflow and erode the road.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will put in an additional 3 foot culvert pipe to help with water flow and eliminate flooding and erosion concerns. This pipe will have a screen due to the beaver debris.		
Is this project related to a Critical Facility?	Yes ☐	No ☒	
Is the critical facility located in the 1% annual chance flood 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:	100 year flood	**Estimated Benefits (losses avoided):**	High, reduce erosion concerns
Useful Life:	40 years	**Goals Met:**	2, 4, 6
Estimated Cost:	Medium	**Mitigation Action Type:**	SIP
Plan for Implementation			
Prioritization:	High	**Desired Timeframe for Implementation:**	1-2 years
Estimated Time Required for Project Implementation:	6 months	**Potential Funding Sources:**	FEMA HMA
Responsible Organization:	Highway Department	**Local Planning Mechanisms to be Used in Implementation if any:**	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
	Eliminate beaver population	N/A	Not environmentally sound, will disturb natural ecosystem
	Replace culvert with bridges	N/A	Unfeasible, construction will disturb roadway for many years
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

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Action Worksheet		
Project Name:	2021-T. German-002	
Project Number:	Smith-Kingsman Road Culvert	
Criteria	**Numeric Rank (-1, 0, 1)**	**Provide brief rationale for numeric rank when appropriate**
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	
Technical	1	Highway department can install new culvert
Political	1	
Legal	1	
Fiscal	0	Town needs funding support
Environmental	1	No anticipated issues
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, severe storm
Timeline	1	
Agency Champion	1	Highway Superintendent
Other Community Objectives	0	
Total	12	
Priority (High/Med/Low)	High	

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