



9.12 Town of Guilford

This section presents the jurisdictional annex for the Town of Guilford. 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 Guilford’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. cx

9.12.1 Hazard Mitigation Planning Team

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

Table 9.12-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
George Seneck, Town Supervisor 223 Marble Rd. Guilford, NY 13780 607-895-9966 guilfordsupervisor@frontier.com	Robert Fleming, Highway Superintendent 223 Marble Rd. Guilford, NY 13780 607-895-6816 guilfordhighway@gmail.com
NFIP Floodplain Administrator	
Steve Fox, Code Enforcement Officer/County Codes 5 Court St. Norwich, NY 13815 607-337-1796 stevenf@co.chenango.ny.us	

9.12.2 Municipal Profile

According to the U.S. Census, the 2010 population for the Town was 2,922.

The Town of Guilford is located in the southeastern quadrant of Chenango County.

In 1785 the first settlers purchased land from the Oneida Indians settling the area later to be known as East Guilford, building the first saw and grist mills for the settlers who would shortly follow. Guilford was formed from the Town of Oxford and portions of Tioga County in 1813. It was originally called “Eastern” and “Fayette” before establishing itself as Guilford in 1817. As more settlers arrived self-sustaining hamlets in the town were established. A tavern was opened in the hamlet known as Rockwells Mills; Inns in the hamlets of Guilford and Lathams Corners; and by the 19th Century Guilford had its’ first farms in the Ives Settlement, Yaleville, as well as increased settlements in the rocky area along the Unadilla River known as Rockdale.

The town had numerous stores, an opera house, schools, and organized its first modern fire department in the hamlet of Guilford in 1928 and in 1934 the hamlet of Mt. Upton followed with the Borden Hose Co. The O&W railroad became a major factor in the expansion of the town. In 1957 the railroad went bankrupt which slowly resulted in the decline of businesses such as the creameries and passenger service to the Guilford Lake resort area.

The Town of Guilford is governed by an elected five member Town Board comprised of a Town Supervisor and four Council members. This governing body will assume responsibility for adoption and implementation of this



plan. The Town has an elected Highway Superintendent; two (2) Town Justices and a Town Clerk, with several appointed positions.

9.12.3 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 9.12-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.12-1 at the end of this annex illustrates the geographically-delineated hazard areas and the location of potential new development, where available.

Table 9.12-2. Recent and Expected Future Development

Type of Development	2015		2016		2017		2018		2019	
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.

9.12.4 Capability Assessment

The Town of Guilford 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 9.12.4). The Town of Guilford identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy.

Planning, Legal, and Regulatory Capability

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

Table 9.12-3. Planning, Legal, and Regulatory Capability

	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Codes, Ordinances, & Requirements							
Building Code	Yes	The Uniform Code (19 NYCRR Parts 1219 to 1229)	Local and State	Handled by County	Yes	NA	NA
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 2015	Local	Local Planning Board	No	Yes	NA
Comment: Subdivision is defined in the State enabling Statutes as: the division of any parcel of land into a number of lots, blocks, or sites as specified in a local ordinance, law or regulation, with or without streets or highways, for the purpose of sale, transfer of ownership, or development. There is not a requirement by NYS for subdivisions. Each municipality is permitted to further define subdivision for its own purposes in connection with its subdivision review procedure. The enabling statutes provide that a plat showing a division of land which is subject to a municipality's subdivision regulations, may not also be subject to review under its site plan review authority. (general city law s. 32 & 33, Town Law s. 276 & 277, Village Law s. 7-728 & 7-730). <ul style="list-style-type: none"> Subdivision Regulations. This Local Law is enacted for the purpose of providing for the orderly future growth and development of land within the Town of Guilford and further to provide order, safety, health and well-being of persons and property within the town. As a requirement for applying for subdivision approval, the Guilford Planning Board shall study the suitability of the Preliminary Plat. Particular attention shall be given to the arrangement, location, and design of streets and their relation to the topography, water supply, lot size and arrangement, and potential flood hazard; and Either a determination of no significant environmental impact (Negative Declaration) or a draft Environmental Impact Statement (EIS) will be required by the designated lead agency before the subdivision may be approved. The Subdivision Sketch Plat and the Preliminary Plat shall include all property lines, easements, existing structures, wooded areas streams, watercourses, flood hazard areas, wetlands, quarries or excavations, bedrock outcrops and other significant physical features, within the area to be subdivided for the Board's consideration. 							
Stormwater Management Regulations	No	-	Local	-	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							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
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 Plan or Regulation	No	-	-	-	No	-	2021-Chenango County-001
Comment:							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	NA	NA
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 Regulation	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.							
Site Plan Review	No	-	Local	-	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 – Environmental Review of Actions, 1979	State	?Town Board	Yes	Yes	NA
Comment: New State Environmental Quality Review Act (SEQR) Title 6 NYCRR Part 617 Regulations are in effect as of January 1st, 2019 <ul style="list-style-type: none"> Local Law No. 1, 1979. A local law providing for the environmental review of actions in the Town of Guilford. It is the purpose of this law to implement for the Town of Guilford SEQR and Part 617. No action, other than an exempt, excluded or Type II action, shall be carried out, approved or funded by any agency, board, body, or officer of the town, unless it has complied with SEQR, Part 617 to the extent applicable and this local law. The lead agency shall make a preliminary determination of environmental significance of the Action on the basis of the Environmental Assessment Form (EAF). An EAF shall be prepared by or on behalf of any agency, board, body or officer of the town in connection with any Type I action such agency, board, body or officer contemplates or proposes to carry out directly. Critical areas of environmental concern may be designated by resolution of the town board in accordance with Part 617.4(i). 							
Flood Damage Prevention Law	Yes	Federal :Participation in the NFIP State: Community Risk and Resiliency Act (CRRA) – Flood Damage Prevention Law, 2010	Local, State, Federal	County, Division of Code Enforcement	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	Yes	NA
Comment: A community must adopt a Flood Damage Prevention Ordinance to participate in the National Flood Insurance Program. <ul style="list-style-type: none"> Local Law # 1 of 2010. A local law for Flood Damage Prevention as authorized by the New York State Constitution, Article IX, Section 2, and Environmental Conservation Law, Article 36. The Town Board of the Town of Guilford finds that the potential and/or actual damages from flooding and erosion may be a problem to the residents of the Town of Guilford 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: 							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
<p>(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;</p> <p>(2) require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;</p> <p>(3) control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;</p> <p>(4) control filling, grading, dredging and other development which may increase erosion or flood damages;</p> <p>(5) regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands, and;</p> <p>(6) qualify and maintain for participation in the National Flood Insurance Program.</p> <ul style="list-style-type: none"> The areas of special flood hazard for the Town of Guilford, Community Number 361088, are identified and defined on the documents prepared by the Federal Emergency Management Agency as the Flood Insurance Rate Map Panel Numbers that affect the community. The Chenango County Health Department Division of Code Enforcement is hereby appointed Local Administrator to administer and implement this local law by granting or denying floodplain development permits in accordance with its provisions. 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. 							
Municipal Separate Storm Sewer System (MS4) Regulation	No	EPA Phase II Stormwater Rule	Federal	-	Yes	-	-
<p>Comment: This requires urbanized areas (local governments) to develop a stormwater management program that will reduce the amount of pollutants carried by stormwater during storm events to waterbodies to the "maximum extent practicable". The goal of the program is to improve water quality and recreational use of waterways. A Municipal Separate Storm Sewer Systems Permit, GP-0-15-003 is required.</p>							
Emergency Management	Yes	NYS Executive Law, Article 2B.	Local	Guilford Fire District/Chenango County EMS	Yes	NA	NA
<p>Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B.</p>							
Climate Adaptation	Yes	NYS Executive Law, Article 75	Local	-	Yes	Yes	Yes, but Out of Date
<p>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.</p>							
Disaster Recovery Ordinance	No	-	-	-	No	-	2021-Chenango County-001
<p>Comment:</p>							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	2021-Chenango County-001
<p>Comment:</p>							
Other Applicable Codes, Ordinances, & Requirements	Yes	-	-	-	-	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Comment: Junkyard Regulations – Adopted 1976 Sanitary Code – Updated 1995 Refuse – Adopted 1970 Solid Waste/Hazardous Waste/Radioactive Waste Disposal Law – Adopted 1989 Renewable Energy Systems Local Law - Town of Guilford Local Law No. 3 of The Year 2019 Renewable Energy Systems Local Law. Right to Farm Law - Town of Guilford, New York, A Local Law No. 5 of The Year 2019 Entitled "Right To Farm Local Law"							
Planning Documents							
Comprehensive Plan	Yes	Adopted 2014 & Updated 2019	Local	Town Planning Board	No	Yes	NA
Comment: Optional under NYS Law, municipality may adopt a comprehensive plan or proceed through a planning process which has evolved based on case law. (Per State Legislature General City Law section 28a, Town Law s. 272a, Village Law s. 7-722) **May be impacted by State wetland regulations which protect wetlands greater than 12.4 acres and established buffer zones. Regulated at the local level <ul style="list-style-type: none"> Town of Guilford Comprehensive Plan. It was developed over multiple years' worth of effort (in 2011-2014) by the Guilford Town Planning Board in consultation with the residents of Guilford and with the assistance of the Guilford Town Board, the Chenango County Planning Department and numerous state and county agencies. Town of Guilford Comprehensive Plan. It was developed over multiple years' worth of effort (in 2011-2014) by the Guilford Town Planning Board in consultation with the residents of Guilford and with the assistance of the Guilford Town Board, the Chenango County Planning Department and numerous state and county agencies. During two periods in a five-year span – June 2006 and September 2011 – highways, dwellings and farms in the Town of Guilford suffered significant damage. Much of this damage resulted from flash flooding. River flooding on the Unadilla River and overflows of streams in the Hamlets of Guilford and Mount Upton also damaged roads and properties. In addition, during the summer of 2011, several episodes of heavy downpours created numerous washouts, blocked culverts and drainage ditches, and undermined some roads. This Plan and the All Hazards Mitigation Plan recommends raising the level of Marble Road to prevent the Town Hall building from being “cut off” by flood waters as occurred in 2006 and 2011. Town of Guilford Comprehensive Plan Update, Adopted by Town Board: June 12, 2019. The purpose of this update is to ensure the Comprehensive Plan establishes a more detailed renewable energy policy and provide the Board with a solid foundation for decision-making related to future renewable energy facilities in Guilford. The Town Board desires to maintain the direction of the 2014 Comprehensive Plan and finds that its goals remain relevant in 2019. The Comprehensive Plan updates include recommendations related to Renewable Energy, including; adopting a renewable energy law for the Town. This local law should address solar, wind, geothermal, and farm to waste energy systems. 							
Capital Improvement Plan	No	General Municipal Law Section 99-g.	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	No	-	Local	-	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	No	-	Local	-	No	-	-
Comment: Local Authority - Could be an element of the Comprehensive Plan. There is a required planning process that must be followed when addressing stormwater management in regulated new development and redevelopment projects.							
Open Space Plan	No	NYS Constitution - Article 9; Statute of	Local	-	Yes	-	-



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
		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	-	-	-	Yes	NA	NA
Comment: Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations							
Community Wildfire Protection Plan	No	-	Local	-	No	-	-
Comment: Under the federal Farm Bill, every 10 years each state must submit a State Forest Action Plan to the U.S. Forest Service. The Plan must be approved by the State Forester, who in New York is the director of DEC's Division of Lands and Forests. The next update of the Plan must be submitted to the Forest Service by June 2020.							
Forest Management Plan	No	-	Local	-	No	-	-
Comment:							
Transportation Plan	No	-	Local	-	No	-	-
Comment:							
Agriculture Plan	Yes	NYCRR Part 390 Agricultural and Farmland Protection – (2019)	Local	Town Board	Yes	Yes	-
Comment: Municipalities may develop agricultural and farmland protection plans, in cooperation with cooperative extension and other organizations, including local farmers.							
Other	No	-	-	-	-	-	-
Comment:							
Response/Recovery Planning							
Comprehensive Emergency Management Plan	Yes	NYS Executive Law, Article 2B	Local	Local OEM	Yes	Yes, but Out of Date	-
Comment: The development of the New York State Comprehensive Emergency Management Plan (CEMP) is required under NYS Executive Law, Article 2B. The plan is developed and maintained by the New York State Office of Emergency Management and agencies that comprise the NYS Disaster Preparedness Commission (DPC).							



	Does your municipality have this? (Yes/No)	Code Citation and Date (code chapter, name, date, link)	Authority (local, Town, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated? Describe how in comments	Provide Mitigation Action # if applicable
Threat & Hazard Identification & Risk Assessment (THIRA)	No	-	Local	-	Yes	-	-
Comment: HIRA is an annual requirement that all states must complete to remain eligible to receive federal homeland security grant funding. It also involves a hazard and capability assessment but DHSES has several methodological concerns with the THIRA process and has developed CEPA to serve as the State's system to capture and analyze hazard/capability information. However, CEPA has been engineered to support the completion of the THIRA.							
Post-Disaster Recovery Plan	No	-	-	-	No	No	2021-Chenango County-001
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: Emergency Response Plan	Yes	-	Local	Guilford Fire District/Chenango County EMS	Yes	No	-
Comment: Nothing is mandated by law in NYS, however, article 2B of the Executive Law provides for authority to draft emergency plans by various levels of government in NYS.							
Other: Special Purpose Ordinances (such as critical or sensitive areas)							
Comment: Emergency Response Plan. State Mandated							

Table 9.12-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	No Requirements
Permits are tracked by hazard area. For example, floodplain development permits.	Yes, Chenango County Codes Department
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 Guilford.





Table 9.12-5. Administrative and Technical Capabilities

Resources	Available? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Town of Guilford
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Town of Guilford
Warning Systems / Services	Yes	Hyper-Reach/Notify Chenango
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Fire District & Fire Protection District
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	County Planning & Development
Engineers or professionals trained in building or infrastructure construction practices	Yes	County Highway Engineer for highway, drainage support
Planners or engineers with an understanding of natural hazards	Yes	County Planning & Development
Staff with expertise or training in benefit/cost analysis	Yes	Contract
Professionals trained in conducting damage assessments	Yes	County Code Enforcement
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	County Planning & Development
Scientist familiar with natural hazards	Yes	Chenango County Soil and Water Department
NFIP Floodplain Administrator (FPA)	Yes	Chenango County Code Enforcement
Surveyor(s)	Yes	County Highway Department
Emergency Manager	Yes	Chenango County Emergency Management Office in conjunction with Guilford District Fire Department
Grant writer(s)	Yes	County Planning & Development; Cornell Co-Operative Extension
Resilience Officer	No	-
Other	-	-

Fiscal Capability

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

Table 9.12-6. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	Yes-Subdivision Fee
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
Withhold public expenditures in hazard-prone areas	No



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

Education and Outreach Capability

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

Table 9.12-7. 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.	Yes, Website and Facebook Page
Warning systems for hazard events; if yes, briefly describe.	Hyper-Reach/Notify Chenango
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	-

Community Classifications

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

Table 9.12-8. 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	-	-	-

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 9.12-9. Adaptive Capacity

Hazard	Adaptive Capacity (Capabilities)
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 Guilford.

Table 9.12-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Town of Guilford	9	18	\$171,966	2	-	3

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 of Guilford has its own Planning Board that approves Land Subdivisions.

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 Guilford has completed Community Assistance Visits (CAV), with the most recent visit completed in 2020.

Regulatory

The Town of Guilford's Flood Damage Prevention Ordinance (FDPO) was last updated on October 21, 2010.

Additional Areas of Existing Integration

It is the intention of this municipality to incorporate hazard mitigation planning and natural hazard risk reduction as an integral component of ongoing municipal operations. The following textual summary and table identify relevant planning mechanisms and programs that have been/will be incorporated into municipal procedures, which may include former mitigation initiatives that have become continuous/on-going programs and may be considered mitigation "capabilities":

- **Land Use and Planning:** The Town has been working on updating their Comprehensive plan, which includes consideration of natural hazard areas.
- **Infrastructure Protection/Floodplain Management:** Control flooding along the banks of Moses Brook from Guilford Lake to the Furnace Hill Road, in addition to numerous small streams in the town. Reinforcement of the banks, diversion of the water flow to slow and reduce erosion, as directed by NYSDEC.
- **Infrastructure Protection/Floodplain Management:** Enhance stormwater management by resizing culverts and preparing a culvert replacement plan for areas prone to flooding or washouts.
- **Infrastructure Protection/Floodplain Management:** Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.
- **Infrastructure Protection/Floodplain Management/Natural System Protection:** Control erosion from Guilford Lake Dam to Furnace Hill Road to maintain integrity of public water supply
- **Infrastructure Protection/Floodplain Management:** Retrofit flood-prone roadways. Specifically increase culvert sizes and raise the level of Marble Road.
- **Local Plans and Regulations:** Consider participation in incentive-based programs such as CRS.



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 identified in the Emergency Action Plan and are specific to hazard event and routes will vary according to the location and type of event.

Sheltering

The Bainbridge-Guilford High School is located outside of the flood plain and has a generator that provides power to a portion of the building in the event of an outage. The High School also has cots that can be used for temporary housing.

Temporary Housing

The Town of Guilford has identified the parking lot at Guilford Town hall and the Town Highway Garage as suitable locations for temporary housing after a disaster.

Permanent Housing

While the Town of Guilford 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.

9.12.5 Hazard Event History Specific to the Town of Guilford

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 Guilford’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 9.12-11 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 9.12-11. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
August 1, 2016	Flash Flood	No	Severe thunderstorms produced torrential rainfall, leading to areas of flash flooding on small streams and across roadways.	Water was flowing across CR-36 in several locations near the center of Guilford. Several homes were flooded, causing an estimated \$50,000 in property damages.
June 13, 2018	Severe Storm	No	Severe storms produced damaging thunderstorm winds (50 kts.) throughout the area.	Strong winds knocked down trees and power lines at the Tall Pines Campground, resulting in \$20,000 of property damages.

Notes:





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

9.12.6 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 Guilford’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 9.12-12. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action
		1% Event	0.2% Event	
Guilford Lake Reservoir	Potable Water Facility	Yes	Yes	2021-T. Guilford-003

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 Guilford. The Town of Guilford 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 Guilford indicated the following:

- Agreement with calculated rankings – no changes made

Table 9.12-13. Hazard Ranking

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

- Moses Creek that runs through the hamlet of Guilford continues to flood breaching Furnace Hill Road and School Street as well as a private culvert on the creek. In addition to making the road impassable the basements of several houses and the Methodist church are repeatedly flooding. This seems to be happening now every year with torrential rainfalls.
- In Mount Upton the creek has washed the bank away filling the concrete causeway that runs through the hamlet with gravel diverting water out of the causeway into the basements of several homes. Gravel from the creek also spills out into the Unadilla River diverting water from the river bed. The causeway built in the 1960’s is large enough to drive a 10 wheel dump truck through.
- Marble Road on which the new town hall and highway facilities are located has now flooded and was impassable three times in the last four years.

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

- Cell service and reliable internet/broadband service.
- Route 8 hamlets along Unadilla River, Hamlet of Guilford along Moses Creek
- An issue I am concerned about is the lack of maintenance on electric lines to keep trees and brush trimmed back.

9.12.7 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 9.12-14. 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.
						Cost	Level of Protection	
(Former TGM - 1)	Reinforcement of the banks	Flood	NYSDEC, Chenango County Soil/Water, Fish & Wildlife	Control flooding along the banks of Moses Brook from Guilford Lake to the Furnace Hill Rd., in addition to numerous small streams in the town. Reinforcement of the banks, diversion of the water flow to slow and reduce erosion, as directed by NYSDEC.	In Progress	Cost	\$50,000	In 2020 the Town plans to replace and enlarge the culvert on School Street at the lower end of the Moses Creek in the Hamlet of Guilford.
						Level of Protection	Low	
						Damages Avoided; Evidence of Success		
(Former TGM - 2)	Enhance stormwater management	Severe Storms	Town Highway Department, Chenango County Soil/Water, NYSDEC	Enhance stormwater management by resizing culverts and preparing a culvert replacement plan for areas prone to flooding or washouts	On-Going Capability	Cost	\$10,000	Plan has been to upsize all the culverts that are replaced. New culverts to double capacity on Phillips Odell Rd. and Railroad St.
						Level of Protection	x2	
						Damages Avoided; Evidence of Success		
(Former TGM - 3)	Control Construction of Beaver Dams	Flood	NYSDEC, Town Highway Department	Control construction of Beaver Dams by monitoring problem areas and cleaning blocked sluice and ditches. This is becoming more prevalent in wetland areas that are adjacent to town roads. These areas often flood creating hazardous conditions.	On-Going Capability	Cost		Continues to be problematic; on-going
						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.
						Cost	Level of Protection	
(Former TGM - 4)	Coastal Erosion Control	Severe storm, Severe winter storm, Heavy snow run-off	ACOE, NYSDEC, FEMA, SEMO	Control erosion from Guilford Lake Dam to Furnace Hill Road to maintain integrity of public water supply.	In Progress	Cost	\$2.1 Million	<ol style="list-style-type: none"> Working with an engineer on dam safety Developing a new water source for Guilford
						Level of Protection		
						Damages Avoided; Evidence of Success		
(Former TGM - 5)	Retrofit flood-prone roadways	Severe storm	Town Highway, County Highway	Retrofit flood-prone roadways. Specifically increase culvert sizes and raise the level of Marble Road	No Progress	Cost	\$60,000	Not moving forward due to cost
						Level of Protection		
						Damages Avoided; Evidence of Success		
(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: <ul style="list-style-type: none"> 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 include: 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	On-going Capability	Cost	-	Ongoing Capability of the Town.
						Level of Protection	-	
						Damages Avoided; Evidence of Success	-	



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Guilford 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 Guilford worked with the consultant and the Chenango County Department of Planning & Development after attending 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 9.12-16 summarizes the comprehensive-range of specific mitigation initiatives the Town of Guilford 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 9.12-17 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.12-15. 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	GRS Category
2021-T. Guilford-001	Furnace Hill Culvert Replacement	1, 2, 3, 4, 6	Flood, Severe Storm	<p>Problem: Furnace Hill Road floods at this location yearly in the spring and during times of significant rainfall. In 2006 and 2011, there was significant road damage.</p> <p>Solution: The Town Highway Department will increase the capacity of the box culvert on Furnace Hill Road, and clean the stream bed leading up to the culvert. The Town will also rebuild and stabilize the stream bank to reduce future flooding events and damages to the road.</p>	No	No	Short; within next 5 years	Town of Guilford Highway	Medium; \$50,000	High	FEMA HMA; Municipal Budget	High	SIP	SP; PP
2021-T. Guilford-002	Marble Road Elevation	3, 4, 7	Flood	<p>Problem: Marble Road has experienced major flooding in 2006 and 2001. The Roadway floods yearly with spring runoff from snow melt and heavy rainstorms.</p> <p>Solution: The Town Highway department will raise the level of the roadway above seasonal flood stage and repave as needed. Marble Road is an essential road to access Town Hall and the Town Highway Garage. Elevating the road will ensure the function of government and essential services year-round.</p>	No	No	Short; within next 5 years	Town of Guilford Highway	High	High	FEMA HMA; Municipal Budget	High	SIP	PP; SP; ES
2021-T. Guilford-003	Guilford Lake/Reservoir Dam Spillway Extension	2, 3, 4	Flood, Severe Storm, Erosion	<p>Problem: Excess flood water over Dam causes erosion beyond the spillway. Heavy rains result in over 1 foot of water topping the dam, causing significant erosion at the base of the spillway. The Guilford Lake Dam is classified as a high hazard dam as of 2018 with the designation of “unsound.”</p> <p>Solution: The Town has consulted the DEC, which recommends extending the spillway and wingwalls to combat the erosion and flooding problems. The Town will work with the DEC and</p>	Yes	No	Short; Will need 3 months to complete	Town of Guilford; NYSDEC	High	High; Avoids damages to Hamlet water system	FEMA BRIC; FEMA HHPD	High	SIP; NSP	SP; NR; PP



Table 9.12-15. 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
				contracted engineers to make the updates to the dam.										
2021-T. Guilford-004	Guilford Property Buyouts	All Goals	Flood	<p>Problem: Repetitive loss properties within the Town are located in areas that will not allow for other types of flood mitigation. Flood damages are repetitive and basements often experience flooding due to location near River.</p> <p>Solution: The Town will work with the property owners to purchase and demolish homes and create green space in the existing location.</p>	No	No	Within 5 years	Town of Guilford	High	High; Ensures life safety and eliminates flood risk for residents	FEMA FMA	Low	SIP; LPR	PR; PP; NR; SP

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.

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

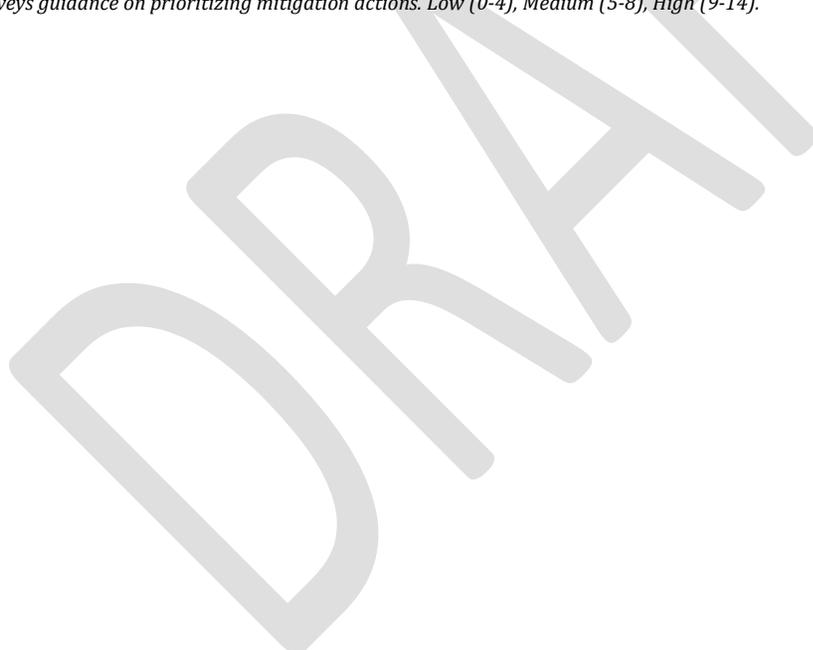
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Table 9.12-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community	Total	High / Medium / Low
2021-T. Guilford-001	Furnace Hill Culvert Replacement	1	1	1	1	1	1	0	1	0	1	1	1	1	1	12	High
2021-T. Guilford-002	Marble Road Elevation	1	1	1	0	1	1	0	1	1	1	1	0	1	0	10	High
2021-T. Guilford-003	Guilford Lake/Reservoir Dam Spillway Extension	1	1	1	1	1	1	-1	1	0	0	1	0	0	1	8	Medium
2021-T. Guilford-004	Guilford Property Buyouts	1	1	1	0	-1	-1	-1	1	-1	-1	0	0	0	1	1	Low

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





9.12.8 Proposed Mitigation Action Types

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

Table 9.12-17. Analysis of Mitigation Actions by Hazard and Category

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

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

9.12.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Guilford 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 and the Highway Department. 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.

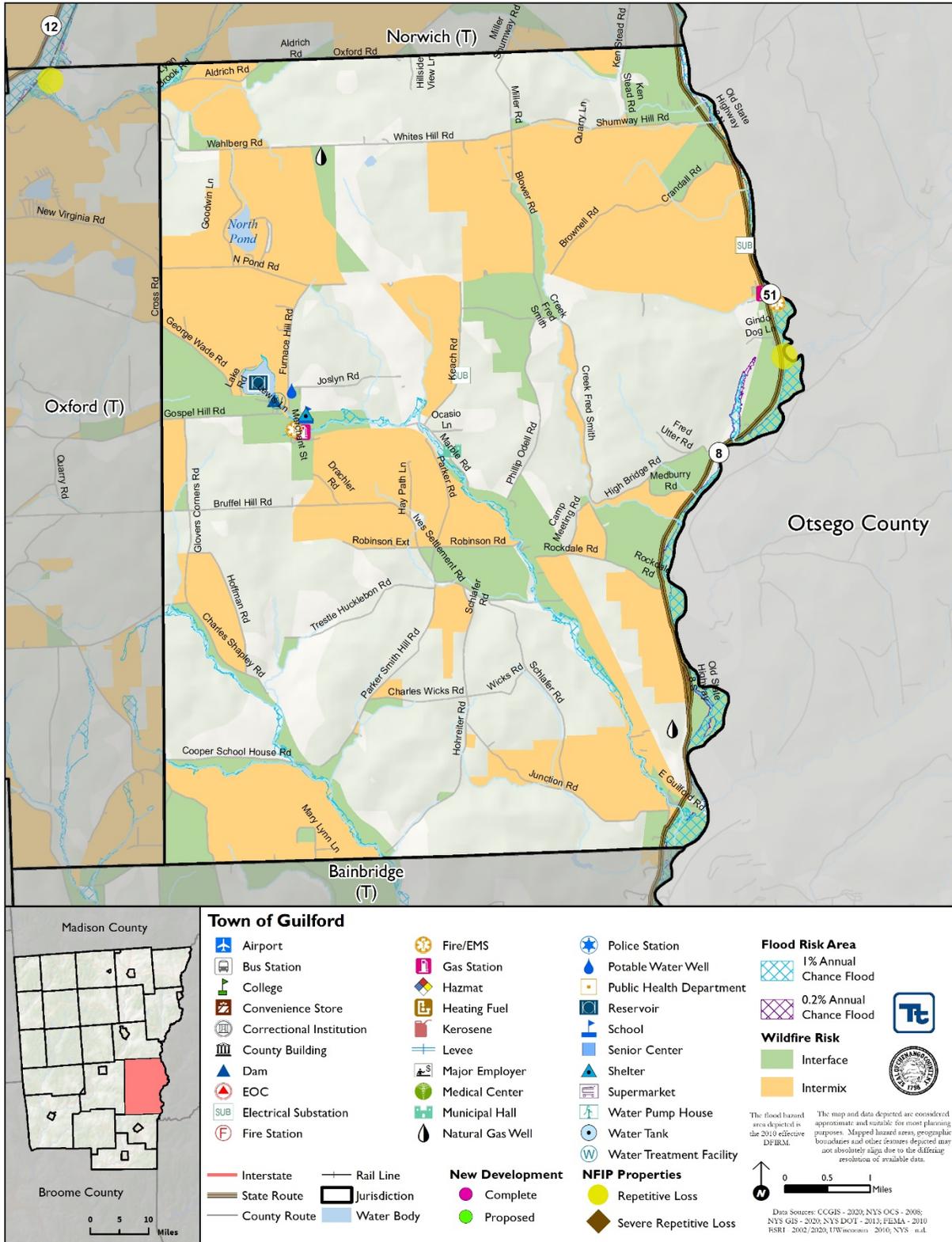
Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meeting Documentation).

9.12.10 Hazard Area Extent and Location

A hazard area extent and location map has been generated for the Town of Guilford 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 Guilford has significant exposure. The map is illustrated below.



Figure 9.12-1. Town of Guilford Hazard Area Extent and Location Map





Action Worksheet			
Project Name:	Furnace Hill Culvert Replacement		
Project Number:	2021-T. Guilford-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Furnace Hill Road floods at this location yearly in the spring and during times of significant rainfall. In 2006 and 2011, there was significant road damage.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway Department will increase the capacity of the box culvert on Furnace Hill Road, and clean the stream bed leading up to the culvert. The Town will also rebuild and stabilize the stream bank to reduce future flooding events and damages to the road.		
Is this project related to a Critical Facility?	No		
Is the critical facility located in the 1% annual chance flood area?			
(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:	1000- year flood	Estimated Benefits (losses avoided):	High, reduces losses to property owners
Useful Life:	30 years	Goals Met:	1, 2, 3, 4, 6
Estimated Cost:	\$50,000	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Next 5 years
Estimated Time Required for Project Implementation:	10-14 days	Potential Funding Sources:	FEMA HMA; Municipal Budget
Responsible Organization:	Town of Guilford Highway	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Build berm	\$20,000	Highway still floods
	Build floodwall	\$50,000	Highway still floods
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Furnace Hill Culvert Replacement	
Project Number:	2021-T. Guilford-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevents highway flooding
Property Protection	1	Will prevent damage to nearby properties
Cost-Effectiveness	1	Replaces smaller box culvert
Technical	1	Can be completed by town highway department
Political	1	Full Town Board support
Legal	1	Town Highway has jurisdiction
Fiscal	0	Town currently lacks funding
Environmental	1	Prevents future streambank erosion
Social	0	No social impact
Administrative	1	Can be supervised by highway superintendent
Multi-Hazard	1	Yes, prevents basement flooding and erosion and damages from heavy rains
Timeline	1	Can be completed asap with funding
Agency Champion	1	Would reduce or prevent flooding in Hamlet
Other Community Objectives	1	Yes, capital improvement, short-term
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Marble Road Elevation		
Project Number:	2021-T. Guilford-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	Marble Road has experienced major flooding in 2006 and 2001. The Roadway floods yearly with spring runoff from snow melt and heavy rainstorms.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town Highway department will raise the level of the roadway above seasonal flood stage and repave as needed. Marble Road is an essential road to access Town Hall and the Town Highway Garage. Elevating the road will ensure the function of government and essential services year-round.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(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 event	Estimated Benefits (losses avoided):	High; ensures continual operation of government
Useful Life:	Permanent, 99 years	Goals Met:	3, 4, 7
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within next 5 years
Estimated Time Required for Project Implementation:	2-3 weeks	Potential Funding Sources:	FEMA HMA; Municipal Budget
Responsible Organization:	Town of Guilford Highway	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Buyout of all properties in Hamlet	N/A	Impossible, Town will lose tax-base
	Relocate roadway	N/A	Unfeasible, Marble Road is main road through Hamlet to access Town Hall and Highway garage
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Marble Road Elevation	
Project Number:	2021-T. Guilford-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Allows access to Town Hall and Highway Garage
Property Protection	1	Allows Town Highway to respond to emergency calls
Cost-Effectiveness	1	Only feasible option
Technical	1	Can be completed by Town Highway
Political	1	Supported by Town officials
Legal	1	Town Highway has jurisdiction
Fiscal	0	Town currently lacks funding
Environmental	1	Will prevent flooding of nearby properties
Social	0	No impacts
Administrative	1	Supervised by Town Highway Superintendent
Multi-Hazard	1	Flood and Severe Storm
Timeline	1	With funding can be completed by 2022
Agency Champion	1	Prevent town facilities from being cut-off
Other Community Objectives	1	Capital improvement short term
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Guilford Lake/Reservoir Dam Spillway Extension		
Project Number:	2021-T. Guilford-003		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm, Erosion		
Description of the Problem:	Excess flood water over Dam causes erosion beyond the spillway. Heavy rains result in over 1 foot of water topping the dam, causing significant erosion at the base of the spillway. The Guilford Lake Dam is classified as a high hazard dam as of 2018 with the designation of "unsound."		
Action or Project Intended for Implementation			
Description of the Solution:	The Town has consulted the DEC, which recommends extending the spillway and wingwalls to combat the erosion and flooding problems. The Town will work with the DEC and contracted engineers to make the updates to the dam.		
Is this project related to a Critical Facility?			Yes
Is the critical facility located in the 1% annual chance flood area?			Yes
(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 event	Estimated Benefits (losses avoided):	High; avoids damages to Hamlet water system and residences
Useful Life:	30 years	Goals Met:	2, 3, 4
Estimated Cost:	High	Mitigation Action Type:	SIP
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	1 - 5 years
Estimated Time Required for Project Implementation:	3 months	Potential Funding Sources:	FEMA BRIC; FEMA HHPD
Responsible Organization:	Town of Guilford	Local Planning Mechanisms to be Used in Implementation if any:	Capital Improvement; Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Drain Lake/decommission Dam	N/A	Impossible, Town will lose water supply
	Replace existing structure	\$5M+	Not cost effective, repairs should be enough to fix the erosion issue as the structure is not damaged
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Guilford Lake/Reservoir Dam Spillway Extension	
Project Number:	2021-T. Guilford-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Prevent damage to hamlet water system
Property Protection	1	Prevent damage to water system inlet pipe
Cost-Effectiveness	1	DEC recommendation to ensure Dam Safety
Technical	1	
Political	1	Supported by Town
Legal	1	Yes - property owned by water department
Fiscal	-1	Water district serves 88 customers; Town lacks revenue to complete project
Environmental	1	Will prevent further stream erosion
Social	0	No immediate/nearby residents
Administrative	0	Project management and engineering help needed
Multi-Hazard	1	Flood, Severe Storm, Erosion
Timeline	0	
Agency Champion	0	Current Town Board needs to review
Other Community Objectives	1	Reduce Hamlet flooding
Total	8	
Priority (High/Med/Low)	Medium	



Action Worksheet			
Project Name:	Guilford Property Buyouts		
Project Number:	2021-T. Guilford-004		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	Repetitive loss properties within the Town are located in areas that will not allow for other types of flood mitigation. Flood damages are repetitive and basements often experience flooding due to location near River.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will work with the property owners to purchase and demolish homes and create green space in the existing location.		
Is this project related to a Critical Facility?			No
Is the critical facility located in the 1% annual chance flood area?			-
(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 event	Estimated Benefits (losses avoided):	High; ensures life safety and eliminates flood risk for these residents
Useful Life:	Permanent, 99 years	Goals Met:	All Goals
Estimated Cost:	High	Mitigation Action Type:	SIP, LPR
Plan for Implementation			
Prioritization:	Low	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	FEMA FMA
Responsible Organization:	Town of Guilford	Local Planning Mechanisms to be Used in Implementation if any:	County Codes; Local Floodplain laws
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Redirect river	N/A	Unfeasible; high environmental concerns, does not eliminate flash flood risk
	Elevate homes	\$1M	Homes experience basement flooding, elevations will not reduce risk
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Guilford Property Buyouts	
Project Number:	2021-T. Guilford-004	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Homeowners will not need to evacuate during storms
Property Protection	1	Prevents homes from repetitive flooding
Cost-Effectiveness	1	Only feasible option
Technical	0	Will need FEMA assistance
Political	-1	Loss of tax revenue
Legal	-1	Needs support of homeowners
Fiscal	-1	Town currently lacks funding
Environmental	1	Will create green space within Town
Social	-1	Opposed by homeowners
Administrative	-1	Will need to hire contractor
Multi-Hazard	0	Flood
Timeline	0	Currently not planned
Agency Champion	0	Not under discussion currently
Other Community Objectives	1	Local floodplain management laws
Total	1	
Priority (High/Med/Low)	Low	