



9.21 TOWN OF KINGSBURY

This section presents the jurisdictional annex for the Town of Kingsbury.

9.21.1 Hazard Mitigation Plan Point of Contact

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

Primary Point of Contact	Alternate Point of Contact
Dana Hogan, Supervisor 6 Michigan Street, Hudson Falls, NY 12839 518-747-2188 ext. 2007 kingsburysupervisor@gmail.com	Not identified at this time

9.21.2 Municipal Profile

The Town of Kingsbury is located along the western border of Washington County. The Town is bordered to the north by the Town of Fort Ann, to the south by the Towns of Fort Edward and Argyle, to the east by the Town of Hartford, and to the west by Warren County. There are several communities found within the Town and include: Adamsville, Baldwin Corner, Dunham Basin, Kingsbury, Pattens Mills, Smiths Basin, and Vaughns Corners. Additionally, there are several water bodies that flow through the Town: Big Creek, Bond Creek, and Wood Creek.

According to the 2010 Census, the Town’s population was 12,671. The Town has a total area of 40 square miles, of which 39.9 square miles of it is land and 0.2 square miles of it is water.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality.

Table 9.21-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
Route 4 Project	Comm	Sewer and Utilities	Throughout Town	To be determined once updated maps are finalized	Complete – sewer and utility work within Town limits
Known or Anticipated Development in the Next Five (5) Years					
None identified					

Note: Only location-specific hazard zones or vulnerabilities identified.

9.21.3 Natural Hazard Event History Specific to the Municipality

Washington County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available,





based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.21-2. Hazard Event History

Dates of Event	Event Type (FEMA Disaster Declaration if applicable)	Washington County Designated?	Summary of Damages/Losses
August 26-September 5, 2011	Hurricane Irene DR-4020	Yes	Downed tree branches in the road led to overtime for DPW crew. A culvert failed on New Swamp Road and was replaced with a culvert the Town had on hand.

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- IA Individual Assistance
- N/A Not applicable
- PA Public Assistance

9.21.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of Kingsbury. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Natural Hazard Risk/Vulnerability Risk Ranking

As discussed in Section 5.3 (Hazard Ranking), each participating town or village may have differing degrees of risk exposure and vulnerability compared to Washington County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Kingsbury. Table 9.21-12 provides proposed mitigation initiatives for the high ranked hazards.

Table 9.21-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Earthquake	100-Year GBS: \$7,963,471 500-Year GBS: \$104,697,088 2,500-Year GBS: \$757,900,201	Occasional	32	High
Flood	Damage estimate not available.	Frequent	18	Medium
Severe Weather	100-Year MRP: \$100,479 500-year MRP: \$1,447,091 Annualized: \$8,210	Frequent	48	High
Severe Winter Weather	1% GBS: \$11,272,270 5% GBS: \$56,361,352	Frequent	51	High
Wildfire	Estimated Value in the WUI Hazard Areas: \$831,132,233	Frequent	48	High

Notes:

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)





- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.
High = Total hazard priority risk ranking score of 31 and above
Medium = Total hazard priority risk ranking of 20-30+
Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.
- f. Damage estimate for flood unavailable due to lack of digital floodplain data for Washington County.

National Flood Insurance Program (NFIP) Summary

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

Table 9.21-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)
Kingsbury (T)	4	0	\$0	0	0

Source: FEMA, 2016

Note (1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA and are current as of April 30, 2016 and are summarized by Community Name. Please note the total number of repetitive loss properties excludes the severe repetitive loss properties. The number of claims represents claims closed by 4/30/2016.

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

Note (3) The policies inside and outside of the flood zones are unavailable due to lack of digital floodplain for Washington County.

Note (4) FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

Critical Facilities

At the time of this HMP Update, digitized flood maps for Washington County are unavailable. In order to provide some level of beneficial analysis, a desktop analysis was performed to identify critical facilities located within the floodplain (refer to Section 5.1 [Methodology and Tools] for details). The following table identifies critical facilities located within the municipality and their exposure, if any, to the possible floodplain. This information is a resource for the municipality to determine if flood mitigation actions are appropriate based on historical events and proximity of the facility to a water body. At the time of this 2018 HMP Update, the municipality did not identify any actions associated with these facilities.

The Town of Kingsbury understands the limitation of the map data and once the updated maps are available, the municipality will work with Washington County to determine which critical facilities are located within the 1% and 0.2% annual chance flood zones. Once identified, the municipality will work with the property owners and develop mitigation actions for each of the critical facilities, ensuring they will be protected to the 500-year (or worst-case scenario) level.

Table 9.21-5. Potential Flood Losses to Critical Facilities

Name	Type	Potential Flood Exposure
None identified		

Source: Washington County; NYS GIS Clearinghouse

Other Vulnerabilities Identified

According to the 2010 Washington County HMP, the following were identified as vulnerable areas in the Town of Kingsbury:

- Champlain Canal Towpath floods annually near New Swamp Road





- New Swamp Road and Wood Creek were damaged in 1996 and 2004
- State Road 32 experiences runoff and floods
- Dean Road is on high ground but there has been water close to flooding

9.21.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

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

Planning and Regulatory Capability

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

Table 9.21-6. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master Plan	Yes	Local	Town Board	2006
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	No	-	-	-
Stormwater Management Plan	Yes	Local	Code Enforcement	MS4
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	No	-	-	-
Emergency Response Plan	No	-	-	-
Post-Disaster Recovery Plan	No	-	-	-
Transportation Plan	No	-	-	-
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State and Local	Code Enforcement (County)	Building Code of New York State (NYS), Local Law #1
Zoning Ordinance	Yes	Local	Zoning Board of	Chapter 280 – Zoning (adopted



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
			Appeals	5/29/85)
Subdivision Ordinance	Yes	Local	Zoning Board of Appeals	Chapter 240 – Subdivision of Land
NFIP Flood Damage Prevention Ordinance	Yes	Local	Supervisor	Chapter 145 – Flood Damage Prevention (adopted 5/27/87)
NFIP: Cumulative Substantial Damages	No	-	-	-
NFIP: Freeboard	Yes	State, Local	Supervisor; Code Enforcement	State mandated BFE+2 for single and two-family residential construction, BFE+1 for all other construction types
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes (1993)	Local	Code Enforcement	Chapter 280 – Zoning (adopted 5/29/85)
Stormwater Management Ordinance	Yes	Local	Code Enforcement	Chapter 230 – Stormwater Management
Municipal Separate Storm Sewer System (MS4)	Yes	Local	County Sewer District	Chapter 230 – Stormwater Management
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS Department of State, Real Estate Agent	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	-	-	-

Administrative and Technical Capability

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

Table 9.21-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning and Zoning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	Fire department
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Code Enforcement Officer; Planning and Zoning; Town Engineer (consultant to town)





Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Code Enforcement Officer; Planning and Zoning; Town Engineer (consultant to town)
Planners or engineers with an understanding of natural hazards	Yes	Code Enforcement Officer; Planning and Zoning; Town Engineer (consultant to town)
NFIP Floodplain Administrator (FPA)	Yes	Supervisor
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
Emergency Manager	No	-
Grant writer(s)	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-

Fiscal Capability

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

Table 9.21-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	No
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas or electric service	No
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	No
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Community Classifications

The table below summarizes classifications for community program available to the Town of Kingsbury.

Table 9.21-9. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-





Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	4/4X	8/25/15
NYSDEC Climate Smart Community	No	-	-
Storm Ready	No	-	-
Firewise	No	-	-
Disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	No	-	-
Public education program/outreach (through website, social media)	No	-	-
Public-Private Partnerships	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

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

Criteria for classification credits are outlined in the following documents:

- Th The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule website at <https://www.isomitigation.com/bcegs/>
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- The National Weather Service Storm Ready website at <https://www.weather.gov/stormready/>
- The National Firewise Communities website at <https://www.nfpa.org/Public-Education/By-topic/Wildfire/Firewise-USA>

Self-Assessment of Capability

The table below provides an approximate measure of the Town of Kingsbury’s capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.21-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High





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

National Flood Insurance Program

NFIP Floodplain Administrator (FPA)

While Flood Damage Prevention Ordinance indicates the Town Supervisor is the Floodplain Administrator, Mr. Ross Cortese, Code Enforcement Officer, provided the following information.

Flood Vulnerability Summary

The Town does not maintain lists or inventories of properties that have been damaged by flooding. During Floyd, Irene and other recent events, there is no knowledge of any structures that were damaged. There is currently no interest in mitigation (elevation or acquisition) within the Town at the time of this plan update.

Resources

The Town FPA, Ross Corese, is the sole person assuming the responsibilities of floodplain administration for the Town. NFIP services and functions provided by the FPA includes permit review and inspections. There is some education and outreach provided to the community regarding flood hazards/risk and flood risk reduction that includes the distribution of floodplain brochures as needed. The FPA indicated that there are currently no barriers to running an effective floodplain management program in the Town. The FPA also stated that more training would be beneficial to help him fulfill his responsibilities as the municipal floodplain administrator. He would consider attending continuing education and training on floodplain management if it were offered in the County.

Compliance History

According to the most recent FEMA Community Status Book Report, the Town of Kingsbury is currently in good standing with the NFIP. However, according to information provided by NYS DEC, a compliance audit has not been conducted for the Town.

Regulatory

The Town’s flood damage prevention ordinance meets the minimum set by FEMA and the State of New York. There are other local ordinances, plans and programs that support floodplain management within the community that includes the consideration of efforts to reduce flood risk by the planning and zoning boards when reviewing variances. The Town has not considered joining CRS but would consider attending a CRS seminar if it were offered locally.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms



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

Planning

Land Use Planning: The Town of Kingsbury has a Planning Board and Zoning Board of Appeals which review all applications for development and consider natural hazard risk areas in their review. Many development activities require additional levels of environmental review, specifically NYS SEQR and Federal NEPA requirements.

Master Plan: The Town currently has an outdated master plan. They are currently in the process of discussing the update process of the plan.

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

Lake Champlain Watershed Water Quality Management Planning: Roadside Erosion Assessment and Inventory: The Lake Champlain Watershed Water Quality Management Planning project was one of 11 projects in New York State that was funded through the Federal Government's American Recovery and Reinvestment Act Initiative. The goal of the project was to identify critically eroding roadside banks that have contributed significant sediment loads to the high-quality streams throughout the Champlain Watershed (Clinton, Essex, Franklin, Warren and Washington Counties). The plan identified 319 roadside erosion sites in need to remediation. In Washington County, 31 sites were identified (12 high priority, 11 moderate priority, and 8 low priority). Two sites were located in the Town of Kingsbury.

Regulatory and Enforcement (Ordinances)

Code Enforcement: Washington County provides code enforcement duties and responsibilities to the Town of Kingsbury.

Building Construction and Fire Prevention Codes Chapter 95: The building codes are strictly enforced to make new and renovated buildings as prepared as possible for hazard related incidents. The Town complies with New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code). Washington County works with the Town and Village of Kingsbury through an Intermunicipal Agreement conducting inspections and issuing building permits.

Flood Damage Prevention Chapter 145: This chapter promotes the public health, safety, and general welfare of residents and seeks to minimize public and private losses, rescue and relief expenditures, and business interruptions due to flood conditions. The chapter regulates development to promote flood resistant structures and controls the alteration of floodplains to prevent increased vulnerability.

Sewers Chapter 210: The Town sewer code protects and regulates its sewage collection and treatment facilities as a matter of public health and environmental safety. The code sets forth uniform requirements for direct and indirect contributors to the wastewater collection and treatment system for the Kingsbury Sewer District No. 1, and seeks to prohibit the introduction of stormwater, surface, or sub-surface waters into sanitary sewers and to control the quantity and quality of wastes in the sewage system.



Stormwater Management Chapter 230: Kingsbury participates in a Federal Environmental Protection Agency (EPA) mandated program for Municipal Separate Storm Sewer Systems (MS4). The purpose of this program is to control the inflow of pollutants into the town's storm sewers and drainage ditches. The Town is an MS4 Regulated Community.

Stormwater Management and Erosion and Sediment Control Chapter 230. Part 2: The Town's stormwater management chapter seeks to mediate the adverse impacts of stormwater runoff, sedimentation, and erosion

Subdivision of Land Chapter 240: The Town's Planning Board is tasked with site plan/subdivision review. Design standards consider storm drainage, water mains, transportation infrastructure, sanitary sewers, and other infrastructure that can exacerbate or conversely, mitigate hazard impacts.

Zoning Chapter 280: The Town of Kingsbury's zoning code includes districts and standards pertaining to the health and safety of the population, and contains references to associated chapters on environmental quality review, flood damage prevention, and stormwater management.

Operational and Administration

Stormwater Management: Town Code Enforcement and Washington County Sewer District performs stormwater management functions within the town.

9.21.6 Mitigation Strategy and Prioritization

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

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. It should be noted that during the 2010 planning process, only general, countywide actions were identified for each municipality. The Town of Kingsbury reviewed the previous actions and selected actions they chose to carry forward as part of this plan update. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.



Table 9.21-11. Status of Previous Mitigation Actions

2010 Mitigation Action	Responsible Party	Status (In progress, No progress, Complete)	Describe Status	Next Step (Include in 2018 HMP or Discontinue)	Describe Next Step
Improve drainage at sites where roads have washed out due to natural hazards in the past	County and NYS DHSES	No Progress	Several projects were identified in Lake Champlain Watershed Water Quality Management Planning Roadside Erosion Assessment and Inventory Report	Include in 2018 HMP	See below
Purchase equipment to provide for local personnel to conduct the drainage improvement	County and NYS DHSES	No Progress	Several projects were identified in Lake Champlain Watershed Water Quality Management Planning Roadside Erosion Assessment and Inventory Report	Include in 2018 HMP	See below
Engineering assessment to determine feasibility of each site improvement	County and NYS DHSES	No Progress	Several projects were identified in Lake Champlain Watershed Water Quality Management Planning Roadside Erosion Assessment and Inventory Report	Include in 2018 HMP	See below
Improve dams to prevent flooding causing roads to wash out.	County and NYS DHSES	No Progress	Due to lack of funding and staff, this action has not been completed	Include in 2018 HMP	See below
Improve identified sites where slope stability is subject to land subsidence and where excavation or planting could mitigate future damage.	County and NYS DHSES	No Progress	Several projects were identified in Lake Champlain Watershed Water Quality Management Planning Roadside Erosion Assessment and Inventory Report	Include in 2018 HMP	See below



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Kingsbury has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- None identified

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Kingsbury participated in a mitigation action workshop in September 2016 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.21-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Kingsbury 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 9.21-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.21-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
T. Kingsbury-1	During the update of the Master Plan, take into consideration the location, frequency, and severity of hazards when updating the land use portion of the plan.	New and Existing	All	All	Town Planning Board	High	Low	Municipal Budget	Short Term	High	LPR	PR
T. Kingsbury-2	Develop and implement a multi-hazard public awareness program for Town residents and business owners.	N/A	All	All	Planning Board	High	Low	Municipal Budget	Short Term	High	EAP	PI
T. Kingsbury-3 (previous action)	County Route 41 – stabilize slope, construct containment earth dyke with water retention, stone-line outlet and hydroseed with conservation mix	Existing	Flood, Severe Storm	1	Town Highway Dept. with support from Lake Champlain-Lake George Regional Planning Board	Medium	Low	County Soil & Water Conservation district, municipal budget, Water Quality Improvement Project Grants	Short Term	High	SIP	PP, NR
T. Kingsbury-4 (previous action)	County Route 36 – re-shape swale and hydroseed with conservation mix	Existing	Flood, Severe Storm	1	Town Highway Dept. with support from Lake Champlain-Lake George Regional Planning Board	Medium	Low	County Soil & Water Conservation district, municipal budget, Water Quality Improvement Project Grants	Short Term	High	SIP	PP, NR
T. Kingsbury-5 (previous action)	Evaluate risk associated with the dams located in the Town. Once evaluated, within six months, identify projects to reduce risk, if any.	New and Existing	Flood, Dam Failure, Severe Storm	1	Town Highway, Town Engineer	High	Medium	Local Budget for Study; FEMA PDM, HMGP and FMA grants to address issues	Short Term	Medium	LPR	PP

Notes:

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

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

Acronyms and Abbreviations:

Potential FEMA HMA Funding Sources:

Timeline:





CAV	Community Assistance Visit	FMA	Flood Mitigation Assistance Grant Program	Short	1 to 5 years
CRS	Community Rating System	HMGP	Hazard Mitigation Grant Program	Long Term	5 years or greater
DPW	Department of Public Works	PDM	Pre-Disaster Mitigation Grant Program	OG	On-going program
FEMA	Federal Emergency Management Agency	RFC	Repetitive Flood Claims Grant Program (discontinued in 2015)	DOF	Depending on funding
FPA	Floodplain Administrator	SRL	Severe Repetitive Loss Grant Program (discontinued in 2015)		
HMA	Hazard Mitigation Assistance				
N/A	Not applicable				
NFIP	National Flood Insurance Program				
OEM	Office of Emergency Management				

Costs:

Where actual project costs have been reasonably estimated:

- Low < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where actual project costs cannot reasonably be established at this time:

- Low Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
- Medium Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the project would have to be spread over multiple years.
- High Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

- Low= < \$10,000
- Medium \$10,000 to \$100,000
- High > \$100,000

Where numerical project benefits cannot reasonably be established at this time:

- Low Long-term benefits of the project are difficult to quantify in the short term.
- Medium Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk exposure to property.
- High Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

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

CRS Category:

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





- *Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.*
- *Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities*



Table 9.21-13. Summary of Prioritization of Actions

Mitigation Action / Project Number	Mitigation Action/Initiative	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
T. Kingsbury-1	During the update of the Master Plan, take into consideration the location, frequency, and severity of hazards when updating the land use portion of the plan.	1	1	1	1	1	1	1	0	1	1	1	1	0	0	11	High
T. Kingsbury-2	Develop and implement a multi-hazard public awareness program for Town residents and business owners.	1	1	1	1	1	1	1	0	1	1	1	1	0	0	11	High
T. Kingsbury-3 (previous action)	County Route 41 – stabilize slope, construct containment earth dyke with water retention, stone-line outlet and hydroseed with conservation mix	1	1	1	1	0	0	0	1	1	1	1	1	1	0	10	High
T. Kingsbury-4 (previous action)	County Route 36 – re-shape swale and hydroseed with conservation mix	1	1	1	1	0	0	0	1	1	1	1	1	1	0	10	High
T. Kingsbury-5 (previous action)	Evaluate risk associated with the dams located in the Town. Once evaluated, within six months, identify projects to reduce risk, if any.	1	1	1	1	0	0	0	1	0	1	1	0	0	0	7	Medium

Note: Refer to Section 6, which conveys guidance on prioritizing mitigation actions.



9.21.7 Future Needs to Better Understand Risk/Vulnerability

None at this time.

9.21.8 Hazard Area Extent and Location

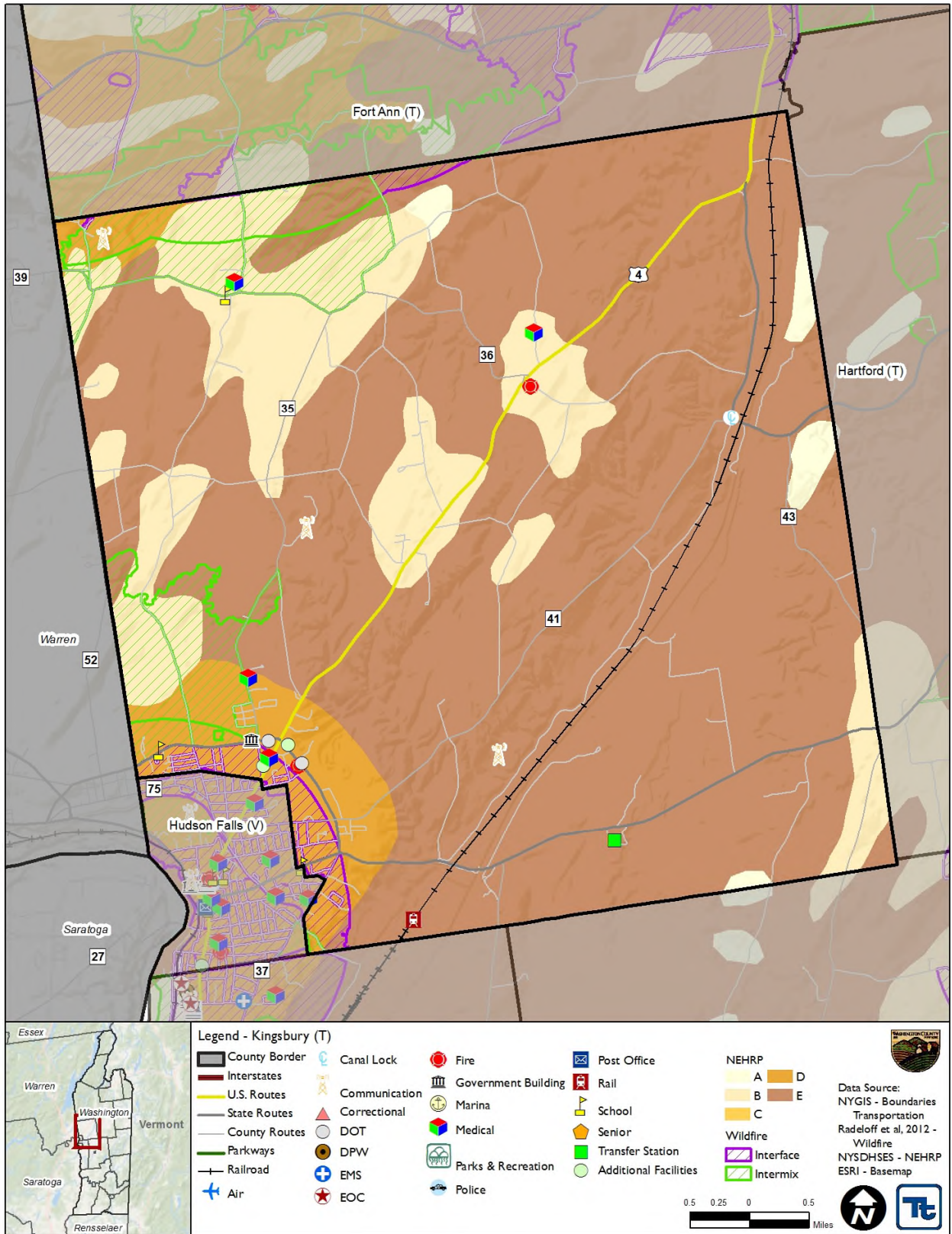
Hazard area extent and location maps have been generated for the Town of Kingsbury that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Kingsbury has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.21.9 Additional Comments

None at this time.



Figure 9.21-1. Town of Kingsbury Hazard Area Extent and Location





Action Number:

T. Kingsbury-1

Mitigation Action Name:

Update the Master Plan and incorporate areas of natural hazard risk.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Current master plan does not incorporate areas of natural hazard risk, which results in little to no collaboration between planners and emergency managers, resulting in hazard assessment information not being imported into future land use and other elements of the master plan.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues. Update Master Plan without incorporating natural hazard risk – current problem continues.
Action/Project Intended for Implementation	
Description of Selected Action/Project	During the update of the Master Plan, take into consideration the location, frequency, and severity of hazards when updating the land use portion of the plan. This creates opportunities to guide future growth and development away from areas with known hazards. It also sets forth recommendations that influence development in a way that does not increase risks to life and property in the Town.
Mitigation Action Type	Local Plans and Regulations (LPR)
Goals Met	Goal 1: Protect Life and Property Goal 2: Increase Public Awareness Goal 3: Encourage Partnerships Goal 4: Provide for Emergency Services Goal 5: Encourage the development and implementation of long-term, cost-effective, and resilient mitigation projects to preserve or restore the functions of natural systems.
Applies to existing and or new development, or not applicable	New and Existing
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Town Planning Board
Local Planning Mechanism	Hazard Mitigation, Planning
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:
Mitigation Action Name:

T. Kingsbury-1
 Update the Master Plan and incorporate areas of natural hazard risk.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	This action is technically feasible
Political	1	
Legal	1	
Fiscal	1	Municipal Budget
Environmental	0	No known environmental impacts
Social	1	No known social impacts
Administrative	1	The Town has the administrative capabilities to complete the action
Multi-Hazard	1	All
Timeline	1	Short Term
Agency Champion	0	
Other Community Objectives	0	
Total	11	
Priority (H/M/L)	High	



Action Number:

T. Kingsbury-2

Mitigation Action Name:

Identify areas of enhancements to promote public outreach and education.

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Public education and outreach programs need to be enhanced because they do not include natural hazard risk management.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues. Rely on outside groups to conduct public outreach – may not be sustainable or at high enough standards.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Identify areas of enhancements to promote public outreach and education in the Town regarding natural hazard risk management. This will include social media and public outreach / awareness.
Mitigation Action Type	Local Plans and Regulations (LPR) Education and Awareness Programs (EAP)
Goals Met	Goal 1: Protect Life and Property Goal 2: Increase Public Awareness Goal 3: Encourage Partnerships Goal 4: Provide for Emergency Services Goal 5: Encourage the development and implementation of long-term, cost-effective, and resilient mitigation projects to preserve or restore the functions of natural systems.
Applies to existing and or new development, or not applicable	N/A
Benefits (losses avoided)	High
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Town Planning Board
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	Municipal Budget
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:
Mitigation Action Name:

T. Kingsbury-2
 Identify areas of enhancements to promote public outreach and education.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide education mechanism to residents and inform them on natural hazards in the Town
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	This action is technically feasible
Political	1	
Legal	1	
Fiscal	1	Municipal Budget
Environmental	0	No known environmental impacts
Social	1	No known social impacts
Administrative	1	The Town has the administrative capabilities to complete the action
Multi-Hazard	1	All
Timeline	1	Short Term
Agency Champion	0	
Other Community Objectives	0	
Total	11	
Priority (H/M/L)	High	



Action Number:

T. Kingsbury-3

Mitigation Action Name:

County Route 41.

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	Eroding slope sides along the roadway can lead to flooding, closed roadways, impacting accessibility, and contributing to significant sediment loads to the stream. Roadway is more susceptible to inundation during periods of heavy rain.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues. Install retaining wall – not effective at reducing flooding.
Action/Project Intended for Implementation	
Description of Selected Action/Project	County Route 41 – stabilize slope, construct containment earth dyke with water retention, stone-line outlet and hydroseed with conservation mix of grass and vegetative seed, mulch, fertilizer, and water. Stone lining the outlet slows water velocity, catches debris, and provides erosion protection. Hydroseeding provides deep rooted plants that hold sediment and grow to produce thicker vegetation cover over the eroded area. All these enhancements help to reduce flooding and erosion in this area of the town.
Mitigation Action Type	Structure and Infrastructure Project (SIP)
Goals Met	Goal 1: Protect Life and Property
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Town Highway Dept. with support from Lake Champlain-Lake George Regional Planning Board
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	County Soil & Water Conservation district, municipal budget, Water Quality Improvement Project Grants
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:
Mitigation Action Name:

T. Kingsbury-3
 County Route 41.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	Municipal Budget or Grant Funding
Environmental	1	No known negative environmental impacts
Social	1	No known social impacts
Administrative	1	The Town has the administrative capabilities to complete the action
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	Short Term
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (H/M/L)	High	



Action Number:

T. Kingsbury-4

Mitigation Action Name:

County Route 36.

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	Eroding slope sides along the roadway can lead to flooding, closed roadways, impacting accessibility, and contributing to significant sediment loads to the stream. Roadway is more susceptible to inundation during periods of heavy rain.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues. Move Route 36 outside of hazard area – not feasible.
Action/Project Intended for Implementation	
Description of Selected Action/Project	County Route 36 – re-shape swale and hydroseed with conservation mix of grass and vegetative seed, mulch, fertilizer, and water. Hydroseeding provides deep rooted plants that hold sediment and grow to produce thicker vegetation cover over the eroded area. All these enhancements aids in reducing flooding and erosion in this area of the town.
Mitigation Action Type	Structure and Infrastructure Project (SIP)
Goals Met	Goal 1: Protect Life and Property
Applies to existing and or new development, or not applicable	Existing
Benefits (losses avoided)	Medium
Estimated Cost	Low
Priority*	High
Plan for Implementation	
Responsible Organization	Town Highway Dept. with support from Lake Champlain-Lake George Regional Planning Board
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	County Soil & Water Conservation district, municipal budget, Water Quality Improvement Project Grants
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:
Mitigation Action Name:

T. Kingsbury-4
 County Route 36.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	Municipal Budget or Grant Funding
Environmental	1	No known negative environmental impacts
Social	1	No known social impacts
Administrative	1	The Town has the administrative capabilities to complete the action
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	Short Term
Agency Champion	1	
Other Community Objectives	0	
Total	10	
Priority (H/M/L)	High	



Action Number:

T. Kingsbury-5

Mitigation Action Name:

Evaluate risk associated with the dams located in the Town.

Assessing the Risk	
Hazard(s) addressed:	Flood, Dam Failure, Severe Storm
Specific problem being mitigated:	Dams in the Town are in need of improvement; however, the extent of improvements is unknown.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	Do nothing - current problem continues. Replace all dams – cost.
Action/Project Intended for Implementation	
Description of Selected Action/Project	Evaluate risk associated with the dams located in the Town. Once evaluated, within six months, identify projects to reduce risk, if any.
Mitigation Action Type	Local Plans and Regulations (LPR)
Goals Met	Goal 1: Protect Life and Property
Applies to existing and or new development, or not applicable	New and Existing
Benefits (losses avoided)	High
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible Organization	Town Highway, Town Engineer
Local Planning Mechanism	Hazard Mitigation
Potential Funding Sources	Local Budget for Study; FEMA PDM, HMGP and FMA grants to address issues
Timeline for Completion	Short Term
Reporting on Progress	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:



Action Number:
Mitigation Action Name:

T. Kingsbury-5
 Evaluate risk associated with the dams located in the Town.

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	
Property Protection	1	
Cost-Effectiveness	1	The costs to implement this project correspond with the benefits achieved
Technical	1	This action is technically feasible
Political	0	
Legal	0	
Fiscal	0	
Environmental	1	No known negative environmental impacts
Social	0	No known social impacts
Administrative	1	The Town has the administrative capabilities to complete the action
Multi-Hazard	1	Flood, Dam Failure, Severe Storm
Timeline	0	
Agency Champion	0	
Other Community Objectives	0	
Total	7	
Priority (H/M/L)	Medium	