

JURISDICTIONAL ANNEX 1.2.25: TOWN OF WOODSTOCK

WORKSHEET 1

Please fill in the contact details for the person filling in this page:					
Town Supervisor Supervisor Representing:		Jeremy Wilber Woodstock, Town of supervisor@woodstockny.org 845 679 2113 ext 17 Aug 28, 2013 Yes			

Local Jurisdiction Role/Position	Name	Email	Phone	Date Notified About Mitigation Plan Development Process	Agreed to participate? (Yes/No)
Land Use/ Community Planner	Therese Fernandez, Planning Board Secretary	tfernandez@woodstockny.org	845 679 2113 ext 313	Jan 20, 2014	yes
Emergency Manager/ Floodplain Manager/ Floodplain Administrator	Michael Densen Ellen Casciaro	woodstockfd@hvc.ir.com ecasciaro@woodstockny.org	845 679 9922 845 679 2113	Nov 21, 2013 Oct 18, 2013	yes yes
Public Works Director / City Engineer	Mike Reynolds, Highway Superintendent	mreynolds@woodstockny.org	845 679 2805	Sep 1, 2013	yes
Building Code Official	Ellen Casciaro	ecasciaro@woodstockny.org	845 679 2113	October 15, 2013	yes
Fiscal/Budget Officer	Jeremy Wilber	supervisor@woodstockny.org	845 679 2113	August 28, 2013	yes
Manager/Administrator	Jeremy Wilber	supervisor@woodstockny.org	845 679 2113	Aug 28, 2013	yes
Elected Officials	Bill McKenna	hillbilly1@earthlink.net	845 679 0627	October 1, 2013	yes
Other 1: Chief	Clayton Keefe, Chief of police	ckeefe@woodstockpd.org	845 679 2425	October 22, 2013	yes
Other 2: Lieutenant					
Other 3:					



Name: Ellen Casciaro Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator
 Representing: Town of Woodstock Email and Phone: ecasciaro@woodstockny.o 845 679 2113

Ulster County Multi-Jurisdictional Hazard Mitigation Plan Update - **Worksheet #2**

Note: This form should be filled out by your floodplain administrator. All communities participating in the National Flood Insurance Program (NFIP) provided FEMA with a floodplain management ordinance and a designated floodplain administrator as a prerequisite to enter the program. All communities are listed in FEMA's Community Status Book of participating communities (08/15/13).

Adoption Date of your Current Floodplain Management Ordinance	Date of Entry into NFIP ¹	Position or Title of Your Jurisdiction's Designated Floodplain Manager/Administrator (may also be called NFIP Coordinator)	Is this person a Certified Floodplain Manager?	Is floodplain management an auxiliary function?	Is your community in good standing with the NFIP?
07/23/91	09/27/91	Building Inspector, Zoning Enforcement Officer, Flood Plain Manager	[x] Yes No	[x] Yes No	[x] Yes No
Provide an explanation of NFIP administration services (i.e., permit review, GIS, education or outreach, inspections, engineering capability, etc.):					
Reviews building permits, continues education, passed CFM test in 2014					
Describe barriers to running an effective NFIP program in the community (if applicable):					
No significant barriers; community seems aware of the value of NFIP program					
When was most recent FEMA Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?*	Is a CAV or scheduled or needed?	Does the current floodplain management ordinance exceed FEMA or State minimum requirements? If so, describe how.	Is training of staff regarding NFIP issues planned?	Does your community intend to enforce the floodplain management requirements including regulating new construction in Special Flood Hazard Areas (SFHAs)?	Does your community participate in the CRS? If so, state your Class.
Unknown: No violations to date	[] Yes [x] No	[] Yes [x] No	[x] Yes No	[x] Yes No	[x] Yes No
*Describe any outstanding compliance issues (i.e., current violations):					
None					
Provide an explanation of your local floodplain permitting process:					

¹ Your date of entry into the NFIP can be found at: <http://www.fema.gov/cis/NY.html> (column "Reg-Emer Date").



Name: Ellen Casciaro Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator

Representing: Town of Woodstock Email and Phone: ecasciaro@woodstockny.o 845 679 2113

A floodplain development permit shall be obtained before the start of construction or any other development, including the placement or replacement of manufactured homes or recreational vehicles, within the area of special flood hazard as established in § 82-6. Application for a development permit shall be made on forms furnished by the local administrator and may include, but not be limited to, plans, in duplicate, drawn to scale and showing the nature, location, dimensions, and elevations of the area in question, existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing.

Does your community intend to continue floodplain identification and mapping services including any local requests for map updates?	Does your community intend to initiate/continue the buyouts of repetitive loss properties?	Does your community intend to commit staff or resources to improve local mapping or code administration in the future?	Does your community intend to provide local outreach to promote the sale of flood insurance?	Does your community intend to participate in RiskMAP meetings and planning initiatives?	Does your community intend to continue to implement structural improvements to mitigate against flooding - culverts, drainage basins, etc.?	Does your community intend to continue to implement home improvement programs designed to minimize basement flooding?	Does your community intend to continue to implement roadway improvements to reduce damage from future flooding events?	Does your community intend to implement plans and programs in coordination with a local or regional drainage/sewer authority?
<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No
Does your community intend to adopt the new FEMA Advisory Base Flood Elevations?								
<input type="checkbox"/> x <input type="checkbox"/> Yes <input type="checkbox"/> <input type="checkbox"/> No								
* If you answered "yes", that there have been changes to your local program since 2009, please describe:								
Have there been any changes to your community's local floodplain management program since the last version of the plan in 2009?								
<input type="checkbox"/> <input type="checkbox"/> Yes * <input type="checkbox"/> x <input type="checkbox"/> No								

Provide a description of your community assistance and monitoring activities:

Duties of the local administrator shall include but not be limited to:

A. Permit application review. The local administrator shall:

(1) Review all development permit applications to determine that the requirements of this chapter have been satisfied.

(2) Review all development permit applications to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.

(3) Review all development permit applications to determine if the proposed development adversely affects the area of special flood hazard. For the purposes of this chapter, "adversely affects" means physical damage to adjacent and other properties. An engineering study may be required of the applicant for this purpose.

Name: Ellen Casciaro

Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator

Representing: Town of Woodstock

Email and Phone: ecasciaro@woodstockny.org 845 679 2113



(a)

If there is no adverse effect, then the permit shall be granted consistent with the provisions of this chapter.

(b)

If there is an adverse effect, then flood damage mitigation measures shall be made a condition of the permit.

(4)

Review all development permits for compliance with the provisions of § 82-16E, Encroachments.

B.

Use of other base flood and floodway data. When base flood elevation data has not been provided in accordance with § 82-6, Basis for establishing areas of special flood hazard, the local administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, including data developed pursuant to § 82-16D(4), in order to administer § 82-17, Specific standards, and § 82-18, Floodways.

C.

Information to be obtained and maintained. The local administrator shall:

(1)

Obtain and record the actual elevation, in relation to mean sea level, of the lowest floor, including basement or cellar, of all new or substantially improved structures, and whether or not the structure contains a basement or cellar.

(2)

For all new or substantially improved floodproofed structures:

(a)

Obtain and record the actual elevation, in relation to mean sea level, to which the structure has been floodproofed; and

(b)

Maintain the floodproofing certifications required in §§ 82-16 and 82-17.

(3)

Maintain for public inspection all records pertaining to the provisions of this chapter, including variances when granted and certificates of compliance.

D.

Alteration of watercourses. The local administrator shall:

(1)

Notify adjacent communities and the New York State Department of Environmental Conservation prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Regional Director, Federal Emergency Management Agency, Region II, 26 Federal Plaza, New York, NY 10278.

(2)

Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood-carrying capacity is not diminished.

E.



Name: Ellen Casciaro Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator
Representing: Town of Woodstock Email and Phone: ecasciaro@woodstockny.o 845 679 2113

Interpretation of FIRM boundaries.

(1) The local administrator shall have the authority to make interpretations when there appears to be a conflict between the limits of the federally identified area of special flood hazard and actual field conditions.

(2) Base flood elevation data established pursuant to § 82-6 and/or Subsection B of this section, when available, shall be used to accurately delineate the areas of special flood hazard.

(3) The local administrator shall use flood information from any other authoritative source, including historical data, to establish flood elevations within the areas of special flood hazard when base flood elevations are not available.

F. Stop-work orders.

(1) All floodplain development found ongoing without a development permit shall be subject to the issuance of a stop-work order by the local administrator. Disregard of a stop-work order shall subject the violator to the penalties described in § 82-8 of this chapter.

(2) All floodplain development found noncompliant with the provisions of this chapter and/or the conditions of the development permit shall be subject to the issuance of a stop-work order by the local administrator. Disregard of a stop-work order shall subject the violator to the penalties described in § 82-8 of this chapter.

G. Inspections. The local administrator and/or the developer's engineer or architect shall make periodic inspections at appropriate times throughout the period of construction in order to monitor compliance with permit conditions and enable said inspector to certify that the development is in compliance with the requirements of the development permit and/or any variance provisions.

H. Certificate of compliance.

(1) It shall be unlawful to use or occupy or to permit the use or occupancy of any building or premises, or both, or part thereof hereafter created, erected, changed, converted or wholly or partly altered or enlarged in its use or structure until a certificate of compliance has been issued by the local administrator stating that the building or land conforms to the requirements of this chapter.

(2) All other development occurring within the designated areas of special flood hazard will have upon completion a certificate of compliance issued by the local administrator.

(3) All certifications shall be based upon the inspections conducted subject to Subsection G and/or any certified elevations, hydraulic information, floodproofing, anchoring requirements or encroachment analysis which may have been required as a condition of the approved permit.



Name: Ellen Casciaro Title: Floodplain Manager/Floodplain Administrator/NFIP Coordinator
Representing: Town of Woodstock Email and Phone: ecasciaro@woodstockny.org 845 679 2113

NFIP participating communities are required to update/revise their floodplain management ordinance to ensure that it complies with the latest FEMA regulations. Will your community continue to commit to this program requirement?	NFIP participating communities are also required to update/revise their floodplain management ordinance to be consistent with the latest FIRMs. Will your community continue to commit to this program requirement?
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Note: NFIP policy statistics by community are maintained at: <http://bsa.nfipstat.fema.gov/reports/1011.htm#NJT>
NFIP claims data by community is maintained at: <http://bsa.nfipstat.fema.gov/reports/1040.htm#34>
Information about structures at risk of flooding can be found in Section 3 of the Hazard Mitigation Plan.
All NFIP participating communities should encourage local residents to purchase and maintain flood insurance.



Ulster County Multi-Jurisdictional Hazard Mitigation Plan Update Worksheet #3

Performing an assessment of Land Uses and Development Trends is one step of a FEMA-approved hazard mitigation plan update. This look into the future is important because development in hazard areas could put more assets at risk and, in turn, could work to increase potential disaster-related damages at a time when the mitigation plan's purpose is to reduce the potential for damages emanating from natural disasters. Land uses and development trends are based on the construction of new buildings, demolition of old buildings, or the planning, zoning or subdivision of new areas for development. A stagnant or decreasing population alone is not reason for stating that no development has occurred unless backed up by a lack of development.

An evaluation of land uses and development trends was undertaken by each participating jurisdiction as part of the development of the initial plan. Excerpts from the 2009 Plan's Land Uses and Development Trends section are included in the pages to follow, documenting your community's prior feedback. Please review your community's feedback shown in the table on the pages to follow, and identify any changes that have occurred since that time. Feedback should be returned to URS Project Manager Anna Foley at anna.foley@urs.com. If you have questions or need help, please email Anna or give her a call at 973-883-8562.

Please check box A or B below.

- ☐ A) I certify that I have reviewed my community's feedback from the 2009 Land Uses and Development Trends assessment and that all information previously provided is still current. *(If checking box A, then please return only this cover page.)*
- ☒ B) I certify that I have reviewed my community's feedback from the 2009 Land Uses and Development Trends assessment and that any information that has changed since that time is clearly shown on the attached markup. Any supporting comments I would like to note are indicated in the lines below. *(If checking box B, then please return this completed cover page and any pages with markups.)*

Name: Therese Fernandez

Title: Planning Board Secretary / Clerk

Representing: Town of Woodstock

Email and Phone: planning@woodstockny.org (845) 679-2113 x6



Local Land Uses and Development Trends

For the initial Plan, Core Planning Group members were asked to provide responses to a Land Uses and Development Trends Questionnaire for the individual jurisdictions. This brief questionnaire consisted of the following two questions:

1. Please describe development trends occurring within your jurisdiction, such as the predominant types of development occurring, location, expected intensity, and pace by land use. While details are preferred, it is ok if your feedback is qualitative and quite general, such as *"high-occupancy, high-density residential development is occurring near the waterfront"*.
2. Does your jurisdiction enforce regulations/ordinances/codes to protect new development from the effects of natural hazards? (Some examples might be floodplain management ordinances enforcing FEMA's NFIP for new development or substantial improvements in the floodplain; steep slope ordinances for community's which may have landslide hazards; earthquake resistant design criteria and/or high wind design criteria; or buffer zones in wildfire hazard areas.) If so, please describe.

Responses to these two questions, as submitted by each jurisdiction, are presented in the following table (as copied directly from the 2009 Approved Plan).



Table 3d.6

Summary of Responses - Land Uses and Development Trends Worksheet - 2009 Approved Plan
(Source: Core Planning Group Members)

Community	1. Land Uses and Development Trends in Hazard Areas	2. Regulations/Codes/Ordinances To Protect New Development From Natural Hazards
Saugerties, Town of	Response was not received in 2009.	Response was not received in 2009.
Saugerties, Village of	Response was not received in 2009.	Response was not received in 2009.
Shandaken, Town of	Last year and this year, most of our developments are alterations and repairs to single family homes. We had four single family homes being built. We get a lot of sheds, garages, wood stove permits. 75 percent of our town is owned by the State. We do not have much land to develop.	The town of Shandaken has zoning codes and flood plain management ordinances for development near the Esopus Creek.
Shawangunk, Town of	Response was not received in 2009.	Response was not received in 2009.
Ulster, Town of	Last year and this year, most of our developments are alterations and repairs to single family homes. We had four single family homes being built. We get a lot of sheds, garages, wood stove permits. 75 percent of our town is owned by the State. We do not have much land to develop.	The town of Shandaken has zoning codes and flood plain management ordinances for development near the Esopus Creek.
Wawarsing, Town of	Response was not received in 2009.	Response was not received in 2009.
Woodstock, Town of	Response was not received in 2009.	Response was not received in 2009.

Town of Woodstock Planning Board is reviewing Town's Comprehensive Plan to determine if changes are needed to update specific zoning district development standards in hazard areas or sensitive areas such as Aquifer and Critical Environmental Areas. Most of the Town's developable lands have already been developed, leaving hazard areas at risk unless planned development can be implemented.

Town of Woodstock adopted Wetlands + Watercourse Protection Standards in 2009.



Ulster County Multi-Jurisdictional Hazard Mitigation Plan Update Worksheet #4

Performing a Capability Assessment is one step of a FEMA-approved hazard mitigation plan update. A mitigation planning Capability Assessment consists of taking an in-depth look at community mechanisms (such as plans, codes, ordinances, staffing, etc.) that can affect hazard mitigation activities. Performing the Capability Assessment helps communities identify the regulatory, administrative, technical, and fiscal capacities and capabilities of their jurisdiction and consider ways that these tools can be used to further hazard mitigation and disaster resiliency goals. Capability Assessments were undertaken by each participating jurisdiction as part of the development of the initial plan. Excerpts from the 2009 Plan's Capability Assessment section are included in the pages to follow, documenting your community's prior feedback.

First, review your community's feedback shown in the three tables attached, and clearly provide markups to identify any changes that have occurred since that time. Also, complete the highlighted columns which have been added since the plan was last prepared. Check box A or B. (Note: Municipalities whose rows are blank did not submit responses in 2009, and must do so now.)

- ☐ A) I certify that I have reviewed my community's feedback from the 2009 Capability Assessment and that all information previously provided is still current. *I have also completed new columns, as highlighted in yellow.*
- ☐ B) I certify that I have reviewed my community's feedback from the 2009 Capability Assessment and that I have updated any information that has changed since that time (as shown on the attached markup). Any supporting comments I would like to note are indicated in the lines below. *I have also completed new columns, as highlighted in yellow.*

Then, review and answer the supplemental questions on the last page, and check box C.

- ☒ C) I have completed responses to the supplemental questions on Page 6.

Completed worksheets should be returned to URS Project Manager Anna Foley at anna.foley@urs.com. If you have questions or need help, please email Anna or give her a call at 973-883-8562.

Name: JORDEN WILBACH

Title: Town Supervisor

Representing: Town of Woodstock

Email and Phone: Supervisor@woodstockny.org 845 679 2113 EXT 17

Legal and Regulatory Capability

**Table 4-1
Legal and Regulatory Capability Inventory**

Jurisdiction	Building Code	Zoning Ordinance	Subdivision Ordinance	Special Purpose Ordinance	Growth Management Ordinance	Site Plan Review Requirements	Comprehensive Plan	Capital Improvements Plan	Economic Development Plan	Emergency Response Plan	Post-Disaster Recovery Plan	Post-Disaster Recovery Ordinance	Real Estate Disclosure Ordinance	Evacuation Plan
Ulster County							✓	✓	✓	✓				
Denning, Town of														
Ellenville, Village of														
Esopus, Town of														
Gardiner, Town of	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Hardenburgh, Town of														
Hurley, Town of	✓	✓	✓	✓		✓	✓			✓	✓			
Kingston, City of	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			
Kingston, Town of	✓	✓	✓	✓		✓								
Lloyd, Town of	✓	✓	✓	✓	✓	✓	✓			✓				
Mirblestown, Town of														
Marlborough, Town of	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
New Paltz, Town of														
New Paltz, Village of	✓	✓	✓			✓	✓			✓				
Olive, Town of														
Plattekill, Town of														
Rochester, Town of														
Rosendale, Town of														
Saugerties, Town of														
Saugerties, Village of														
Shandaken, Town of	✓	✓	✓	✓		✓	✓			✓				
Shawangunk, Town of														
Ulster, Town of	✓	✓	✓	✓		✓	✓			✓				
Wawarsing, Town of						✓	✓				✓			
Woodstock, Town of	✓	✓	✓	✓		✓	✓				✓			✓

Administrative and Technical Capacity

Table 4-2 Administrative and Technical Capacity Inventory														
Jurisdiction	Planner(s) with knowledge of land development and management practices	Engineer(s) with knowledge of land development and management practices	Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Planner(s) or Engineer(s) with an understanding of natural and/or human caused hazards	Floodplain manager	Surveyors	Staff with education or expertise to assess the community's vulnerability to hazards	Personnel skilled in GIS and/or HAZUS	Scientists familiar with the hazards of the community	Emergency Manager	Grant writers	Code Enforcement Official	Public Works or Highway Superintendent	Emergency Management Coordinator
Ulster County			✓	✓		✓	✓	✓		✓	✓			
Denning, Town of														
Ellenville, Village of														
Esopus, Town of														
Gardiner, Town of			✓	✓	✓		✓			✓	✓			
Hardenburgh, Town of														
Hurley, Town of			✓	✓										
Kingston, City of			✓	✓	✓		✓			✓	✓			
Kingston, Town of			✓		✓			✓		✓				
Lloyd, Town of				✓	✓		✓	✓						
Marbletown, Town of														
Marlborough, Town of			✓	✓	✓	✓	✓	✓		✓	✓			
New Paltz, Town of														
New Paltz, Village of			✓	✓	✓	✓	✓			✓	✓			
Olive, Town of														
Plattekill, Town of														
Rochester, Town of														
Rosendale, Town of														
Saugerties, Town of														

Jurisdiction	Table 4-2 Administrative and Technical Capability Inventory													
	Planner(s) with knowledge of land development and management practices	Engineer(s) with knowledge of land development and management practices	Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Planner(s) or Engineer(s) with an understanding of natural and/or human caused hazards	Disziplin manager	Surveyors	Staff with education or expertise to assess the community's vulnerability to hazards	Personnel skilled in GIS and/or HAZUS	Scientists familiar with the hazards of the community	Emergency Manager	Grant writers	Code Enforcement Official	Public Works or Highway Superintendent	Emergency Management Coordinator
Saugerties, Village of					✓									
Shamlaiken, Town of														
Shawangunk, Town of														
Ulster, Town of					✓									
Wawarsing, Town of														
Woodstock, Town of	✓	✓												

Fiscal Capability

Table 4-3
Fiscal Capability Inventory

Jurisdiction	Community Development Block Grants (CDBG)	Capital Improvements Project Funding	Authority to Levy Taxes for Specific Purposes	Fees for Water, Sewer, Gas, or Electric Service	Impact Fees for Homebuyers or Developers for New Developments/Homes	Incur Debt through General Obligation Funds	Incur Debt through Special Tax and Revenue Bonds	Incur Debt through Private Activity Bonds	Withhold Spending in Hazard-Prone Areas	Other (i.e., coastal, sustainability, or climate change initiatives; or Brownfield funds)
Ulster County	✓	✓				✓	✓			
Denning, Town of										
Ellenville, Village of										
Esopus, Town of										
Gardiner, Town of		✓	✓	✓		✓			✓	
Hudsonburgh, Town of										
Hurley, Town of			✓			✓	✓	✓		
Kingsham, City of	✓	✓	✓	✓	✓	✓				
Kingston, Town of	✓	✓	✓	✓		✓	✓			
Lloyd, Town of			✓	✓	✓	✓	✓		✓	
Marbletown, Town of										
Malbrough, Town of	✓	✓	✓	✓	✓	✓	✓			
New Paltz, Town of										
New Paltz, Village of		✓	✓	✓	✓	✓				
Oliver, Town of										
Plattekill, Town of										
Rochester, Town of										
Rosendale, Town of										
Saugerties, Town of										
Saugerties, Village of										
Shandaken, Town of				✓						
Shawangunk, Town of										
Ulster, Town of	✓	✓	✓	✓	✓	✓	✓			✓
Wawarsing, Town of	✓		✓	✓	✓	✓	✓			✓
Woodstock, Town of	✓		✓	✓	✓	✓	✓			✓

Municipality

Windsor

Would you classify your community's <u>legal and regulatory</u> capability to implement hazard mitigation strategies as high, moderate, or low?	Would you classify your community's overall <u>technical</u> capability to implement hazard mitigation strategies as high, moderate, or low?	Would you classify your community's overall <u>fiscal</u> capability to implement hazard mitigation strategies as high, moderate, or low?	Would you classify your community's overall <u>administrative</u> capability to implement hazard mitigation strategies as high, moderate, or low?	Would you classify your political leadership's willingness to enact policies and programs that reduce hazard vulnerabilities in your community as high, moderate, or low - even if met with opposition? (i.e., guiding development away from identified hazard areas)?
High	High	High	Low	Medium

Discuss ways of bridging identified gaps in your local capabilities to ensure that they are in-line with your mitigation actions and goals.

THE TOWN WILL EDUCATE TO THE EXTENT PRACTICABLE THE APPROPRIATE DEPARTMENT HEADS WITH REGARD TO DEALING WITH POTENTIAL HAZARDS AFFECTING OUR COMMUNITY. IT SHOULD BE NOTED THAT FLOODING IS THE PRINCIPAL HAZARD, AND WIND SECONDARY.

WORKSHEET 5 NOT APPLICABLE

(DID NOT PARTICIPATE IN 2009, SO
NO PAST PROJECTS TO TRACK)



Ulster County Multi-Jurisdictional Hazard Mitigation Plan Update Worksheet #6

For a community to succeed in reducing risk in the long term, the information and recommendations of the hazard mitigation plan must be integrated into day-to-day local government operations. Throughout the planning process, partnerships are formed between departments and agencies, and sustained actions between these partners will increase the community's resilience to disasters. "Plan integration" can be thought of as the process whereby each local government will incorporate the mitigation plan findings and projects into other planning mechanisms (governance structures that are used to manage local land use development and community decision making).

For this Plan Update, FEMA requires:

- a summary of each jurisdiction's past progress in plan integration over the last planning cycle; and
- a description of plan integration activities that each jurisdiction expects to undertake over the course of the next planning cycle.

This worksheet has been set up, therefore, into two components with each portion focusing on one of the bullets above.

- Demonstration of Progress over the Last Planning Cycle – In the first component of this worksheet (shaded in blue), we have reiterated the targeted plan integration activities that were included in the last version of the plan (Section 9, beginning on Page 9-4) in a tabular form, and are asking each community to describe their respective accomplishments since the plan was adopted five years ago.
- Targeted Plan Integration Activities for the Next Planning Cycle – Similarly, in the second component of this worksheet (shaded in yellow), we have outlined a series of plan integration activities for the next five-year planning cycle. Please document to FEMA the manner in which your community will commit to integrate the hazard mitigation plan into your local government operations from this point forward.

Where integration activities are carried out by another jurisdiction through an intergovernmental agreement or by another layer of government (such as the county), please include a note on the bottom of this form and reference the section number on this form that the note is referring too.

Feedback should be returned to URS Project Manager Anna Foley at anna.foley@urs.com. If you have questions or need help, please email Anna or give her a call at 973-883-8562.

Name:

Lancey Calkins

Title:

Town Supervisor

Representing:

Town of Coopersville

Email and Phone:

Supervisor@coopersville.ny.us 845 679 2113 ext 17

Community Name _____

DEMONSTRATION OF PAST PROGRESS OVER THE LAST PLANNING CYCLE

Check box 1 if your municipality has not completed the demonstration of past progress over the last planning cycle.

1. Check here if you (or your predecessor on the CPG) issued a letter to each of your community's department heads to solicit their support and explore opportunities for integrating hazard mitigation planning objectives into their daily activities?	
2. A. Check here if you (or your predecessor on the CPG) worked with your planning department to educate them on the Hazard Mitigation Plan and encourage that on the next update of your master plan, general or comprehensive plan, hazard mitigation for natural hazards is addressed. Please describe your coordination efforts in the space below.	
B. Check here if your municipality does not have a master, general, or comprehensive plan.	
C. Check here if your master, general or comprehensive was updated since 2009.	
D. If you checked box 2C, please check here if natural hazard risk/mitigation was incorporated into the updated document, and describe how in the space below.	
E. If you checked box 2C, please check here if a specific hazard mitigation element was added to the document, and describe in the space below.	
3. Check here if you (or your predecessor on the CPG) coordinated with your building department to ensure that they have adopted and are enforcing the minimum standards established in the current State-adopted IBC. Please describe your coordination efforts in the space below.	
4. A. If your community participates in the NFIP and was only enforcing minimum requirements at the time of the first plan's adoption, check here if you (or your predecessor on the CPG) coordinated with your Floodplain Administrator to determine if enforcement beyond FEMA minimum requirements would be prudent for your community. Please describe your coordination efforts in the space below.	

Community Name _____

B. Check here if your community was already enforcing regulations beyond FEMA minimum requirements.	
<p><i>(If your community has already adopted regulations beyond FEMA minimum requirements, please check here.)</i></p>	
<p>4. Check here if your community has joined the NCEM's Community Rating System (CRS).</p> <p>F. Check here if your community has dropped out of the CRS since 2009.</p>	
5. A. Check here if your community has a local zoning ordinance.	
B. Check here if you (or your predecessor on the CPG) worked with your local zoning board to educate them on the Hazard Mitigation Plan and encourage consideration of low occupancy, low-density zoning in hazard areas, when practicable. Please describe your coordination efforts in the space below.	
6. A. Check here if any job descriptions were revised to include mitigation-related duties to further institutionalize mitigation.	
B. If so, describe.	
7. A. Check here if capital or operating budgets were revised to include a line item for mitigation project funding.	
B. Check here if capital or operating budgets already included this when the plan was first adopted.	
8. A. Check here if your Department of Public Works has adopted more rigorous procedures for inspecting and cleaning debris from streams and ditches (i.e., more frequently).	
B. If so, describe.	
9. A. Check here if your Planning Department has added hazard vulnerability to subdivision and site plan review criteria.	
B. If so, describe.	
10. (NOTE: A response to #10 is only required for UCECEM; all municipalities, please leave blank) Check here if UCECEM sought to identify a community conservation society or other interested voluntary organization to perform inventories of historic sites in hazard areas that might require special treatment to protect them from specific hazards.	
B. If so, describe.	
11. Check here if your community has reached out to partner groups in the community (i.e., nonprofit organizations, businesses, etc.) to identify those who may be willing to donate goods or services and create a database of contact information and indicated goods/services.	
B. If so, describe.	

Community Name _____

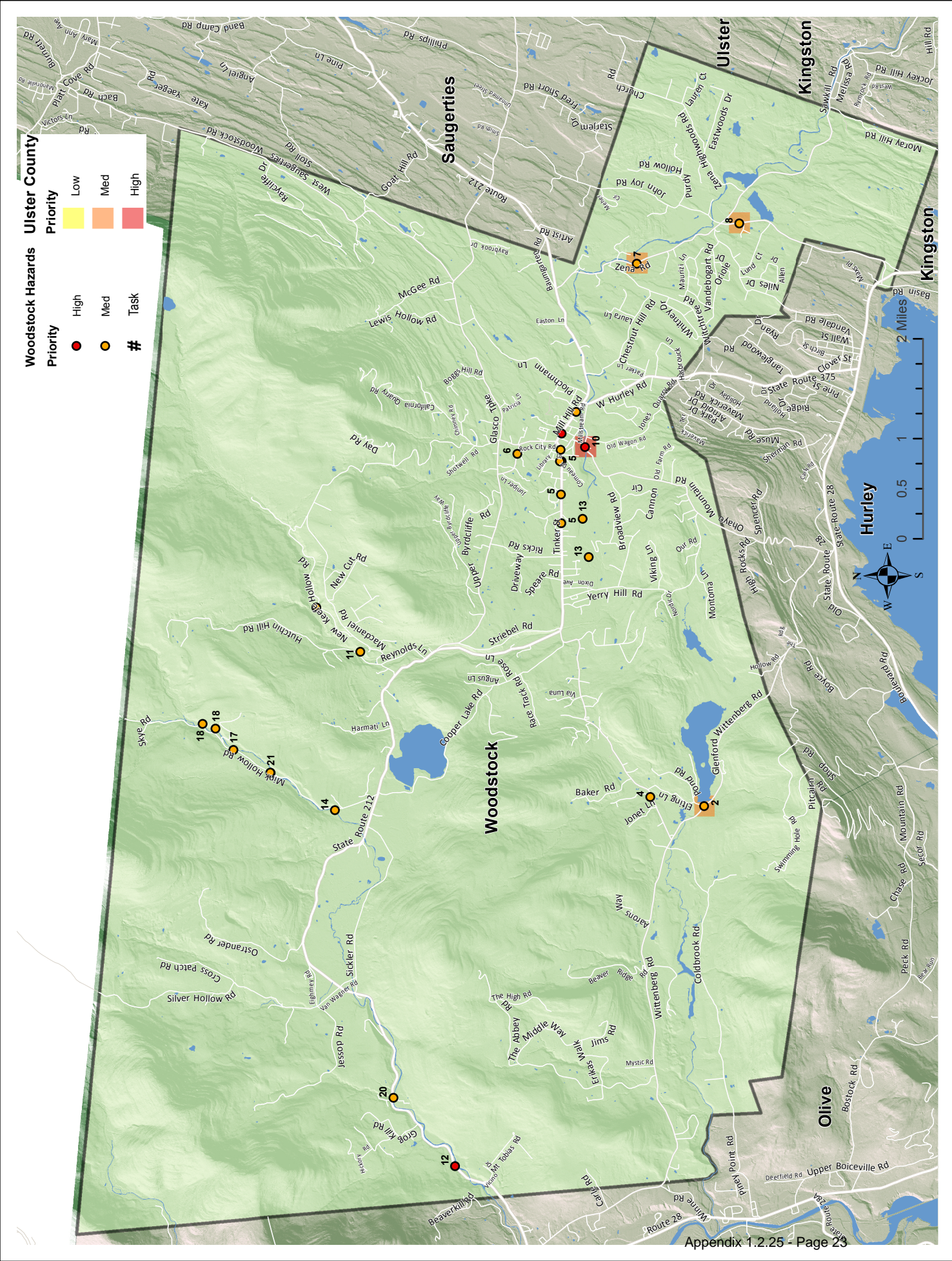
12. Check here if your community has actively sought citizen volunteers to help implement mitigation programs and activities.	
<p>projects.</p> <p>B. (NOTE: A response to #13A is only required for UCECEM; all municipalities, please leave blank) Check here if assistance was provided to participating jurisdictions in reaching out to state agencies for support.</p> <p>C. If A or B was checked, please describe.</p>	
<p>14. A. Check here if your community has reached out to colleges and universities for technical assistance with hazard mitigation activities.</p> <p>B. If so, please describe.</p>	
<p>15. A. Check here if your community has met at least once with your local library staff members to discuss the mitigation plan so they are well-versed in its purpose and understand where to direct interested parties for more information, to provide feedback, or to become involved.</p> <p>B. If so, please describe.</p>	

Community Name Town of Concord

TARGETED PLAN INTEGRATION ACTIVITIES FOR THE NEXT PLANNING CYCLE

2.	A. Incorporate hazard mitigation for natural hazards in the next update of your master, general or comprehensive plan.	✓
	B. Adopt general or comprehensive element to the next update of your master, general or comprehensive plan.	✓
	C. Adopt and enforce the minimum building standards established in the current state-adopted IBC.	✓
4.	A. Maintain community participation in FEMA's National Flood Insurance Program.	✓
	B. Enforce codes and standards beyond FEMA minimum requirements.	✓
	C. Join (or continue to maintain participation in) the NFIP's Community Rating System.	✓
5.	Steer growth and development away from high risk locations by using the risk assessment from the hazard mitigation plan as a tool to monitor future updates of community land use plans, zoning and subdivision codes and the development review process.	✓
6.	Modify work plans, policies or procedures to include hazard mitigation concepts/activities.	✓
7.	Revise job descriptions to include mitigation-related duties to further institutionalize mitigation.	✓
8.	Revise capital or operating budgets to include a line item for mitigation project funding.	✓
9.	Issue directives to require departments/agencies in the community to carry out certain hazard mitigation activities.	✓
10.	Require the Department of Public Works to inspect and clean debris from streams and ditches more frequently.	✓
11.	Add hazard vulnerability to subdivision and site plan review criteria.	✓
12.	Perform inventories of historic sites in hazard areas in your community to identify where special treatment may be needed to protect them from specific natural hazards.	✓
13.	Reach out to state agencies for assistance with natural hazard mitigation activities.	✓
14.	Reach out to colleges and universities for technical assistance with natural hazard mitigation activities.	✓
15.	Adopt (or continue to enforce) a local stormwater management plan/ordinance.	✓
16.	Protect life and property in high hazard areas by limiting densities of new development.	✓
17.	Increase resilience by limiting the extension of public infrastructure in high hazard areas.	✓
18.	Reduce the vulnerability of future development in high hazard areas by reviewing development regulations, and modifying where needed.	✓
19.	Use the risk assessment to inform future updates of the community emergency operations plan, evacuation plan, and/or post disaster recovery plan.	✓
20.	Implement hazard mitigation activities through existing plans and policies.	✓
21.	Sponsor training on best practices for hazard mitigation for local government staff. (Note: this may be accomplished with other local governments.)	✓

Woodstock Hazard Mitigation Actions



Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #1 - Mink Hollow Bridge Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>Flooding</i>
Risk finding	<i>Bridge has been damaged by repetitive flooding and in need of repair; approximately 30 homes above would be cut-off on a dead end road if washed out</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>flood mitigation</i>
Action description	<i>Install stacked rock wall sheet piling to protect Mink Hollow Bridge, which was damaged by Hurricane Irene and Tropical Storm Lee. Bridge fortification would protect the travelway, prevent future erosion and potential bridge failure both during and after future flood events. Project would also stabilize upstream section to maintain alignment with downstream bridge. Town has repaired several times and a more permanent / engineering solution is required. Approximately 900' in length. Location is Longitude: -74.182119; Latitude: 42.082956</i>
Existing, future &/or NA	<i>protects existing and future development;</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>Substantially reduce damage to existing infrastructure (road/bridge) and to neighboring private property.</i>
Cost estimate	<i>\$500,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Yes, money saved in long term to proactively address known problem; The start up costs will be high, however over time this project will be cost effective.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town is supportive, as are affected home owners;</i>
Legal	<i>none</i>
Environmental	<i>DEC permit required</i>
Social	<i>none</i>
Administrative capability	<i>Town Highway Dept would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board, residents</i>
Other community objectives	<i>capital improvement</i>
Implementing the Action	
Priority	<i>High</i>
Local planning mechanism	<i>NY Rising Plan; Beaverkill Stream Management Plan</i>
Responsible party	<i>Woodstock Town Highway Dept.</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Flood Hazard Mitigation Implementation Program (FHMIP); Stream Management Implementation Grants (SMIP); NYSDOT Bridge NY</i>
Time line	<i>two months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #2 - Move Highway Communications Antenna</i>
Assessing the Risk	
Hazard(s) addressed	<i>Multihazard</i>
Risk finding	<i>Communications antenna has limited capability (as it was damaged in a storm event and not adequately repaired) and coverage at present location; Additionally, there is not adequate backup power supply for the load needed.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>disaster preparedness/emergency communications;</i>
Action description	<i>Move the highway communications antenna from its present location to the municipal tower that will enhance coverage and communications. An antenna and other related equipment will all be protected to at least the 500 year flood level (if located in a floodplain).</i>
Existing, future &/or NA	<i>NA</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>Improved Emergency services/preparedness and communications</i>
Cost estimate	<i>\$250,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Nearly impossible to measure benefits for public safety projects such as this, however the public benefits "benefit" of this project will save the town money over the long term;</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town is supportive</i>
Legal	<i>none</i>
Environmental	<i>none</i>
Social	<i>none</i>
Administrative capability	<i>Town Highway Dept would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board, residents</i>
Other community objectives	<i>better communications and coverage during disasters</i>
Implementing the Action	
Priority	<i>High</i>
Local planning mechanism	<i>NY Rising Plan; Town Emergency Preparedness Plan</i>
Responsible party	<i>Woodstock Town Highway dept.</i>
Potential funding sources	<i>NY Rising;</i>

Time line	<i>two months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #3 - Bury Power Lines to Municipal Water Supply</i>
Assessing the Risk	
Hazard(s) addressed	<i>multihazard (ice storm/blizzard, hurricane)</i>
Risk finding	<i>The main power lines to the facility are frequently damaged by fallen trees/limbs in wind storms and snowstorms.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>protection of public health and safety; utility protection</i>
Action description	<i>Bury approximately 1200' of power line from Yerry Hill Road to Pump House #2 (Municipal water supply) in Bearsville to prevent fallen trees from disrupting power to the plant that services hundreds of homes, including the entire hamlet of Woodstock. 400' of the property with the lines are privately owned and homeowner will not let the trees be cut. Location is Longitude: -74.147652; Latitude: 42.034948</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the availability of water supply during storm events preventing public health and safety hazards;</i>
Cost estimate	<i>\$500,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>public health and safety are benefits; repairing recurring damage and constant maintenance will be costs avoided, therefore over the project lifespan the project will be cost effective.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>none</i>
Social	<i>none</i>
Administrative capability	<i>Town Board would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board, residents</i>
Other community objectives	<i>capital improvement</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan;</i>
Responsible party	<i>Woodstock Town Board</i>
Potential funding sources	<i>NY Rising</i>
Time line	<i>six months</i>

Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #4 - Wittenberg / Shultis Farm Road Culvert Replacement</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>The current culvert is in a deteriorated condition, causes a constriction during modest flows which flow across County Route 45. The current culvert does not allow adequate fish passage.</i>
Describing the Action	
Action category	<i>structural; natural resources</i>
Action type	<i>drainage improvement</i>
Action description	<i>Replace old steel culvert on private road with larger 9' x 12' x 30' concrete box culvert to protect County-owned Wittenberg Road and enhance aquatic habitat. Location is intersection of Shultis Farm Road and CR 45 (Longitude: -74.187553; Latitude: 42.027931)</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway and nearby homes; additionally this will improve aquatic habitat in the stream</i>
Cost estimate	<i>\$300,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>structure is located on private road; Town will work collaboratively with the private landowners to address</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of woodstock would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board, Ulster County DPW</i>
Other community objectives	<i>capital improvements</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan</i>
Responsible party	<i>Town of Woodstock</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Flood Hazard Mitigation Implementation Program (FHMIP); Stream Management Implementation Grants (SMIP); NYSDOT Bridge NY</i>
Time line	<i>one month</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #5 - State Route 212 Bridge Upgrades</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>The current bridges (five total) are in a very deteriorated conditions, causing a public health and safety hazard, as well as being constrictions during higher flows.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement</i>
Action description	<i>Replace the five old bridges, four with box culverts, and one with larger beam-structure bridge that will better convey storm events. Locations are Longitude: -74.134178, Latitude: 42.04045; Longitude: -74.128551, Latitude: 42.040424; Longitude: -74.122159, Latitude: 42.040291; Longitude: -74.119874, Latitude: 42.040418; Longitude: -74.112575, Latitude: 42.038107</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway and nearby homes; additionally this will improve aquatic habitat in the stream</i>
Cost estimate	<i>\$1,500,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>public health and safety are benefits; Benefits with multiple aspects over periods of years, such as this, are difficult to quantify, but anticipated to be in excess of project costs, for a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>In the town's jurisdiction, but structure is State DOT responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>NYSDOT would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; economic development</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan;</i>

Responsible party	<i>NYSDOT</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDOT Bridge NY; NYSDOT budget</i>
Time line	<i>three to five years</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #6 - Culvert Replacement- Bellows Lane Intersection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>The current culvert is in a deteriorated condition and causes a stream constriction during higher flows resulting in water flowing over the road.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; habitat improvement</i>
Action description	<i>Replace aluminized boxed culvert at intersection of Lower Byrdcliffe Road and Bellows Lane with a larger concrete box with will reduce flooding and allow for better fish passage; Longitude: -74.120619, Latitude: 42.046724</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway and nearby homes; additionally this will improve aquatic habitat in the stream</i>
Cost estimate	<i>\$50,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost for this low-cost project.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Woodstock Highway dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan;</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDOT Bridge NY;</i>

Time line	<i>two months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #7 - Zena/Sawkill Road Stormwater Remediation</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Currently an under-sized culvert, in conjunction with a low spot in the road causes backwatering and inundation of a well-traveled road even during moderate flows resulting in a roadway that becomes impassable and results in a 5-mile detour through a residential neighborhood.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement;</i>
Action description	<i>Between #s 739-759 on Zena/Sawkill Rd. a low-lying area at a sharp turn in the road and Sawkill Creek, floods the roadway regularly during heavy rain events. A study is likely needed to determine if the under-sized culvert can be upsized on its own or if a combination of culvert replacement and raising of the roadway is needed. Longitude: - 74.083873, Latitude: 42.029114</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway and nearby homes</i>
Cost estimate	<i>TBD - would vary depending upon project chosen (\$100,000 - \$500,000)</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive, however the project is not under the purview of Town of Woodstock</i>
Legal	<i>In the town's jurisdiction, but structure is County responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Ulster County DPW would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan;</i>
Responsible party	<i>Ulster County DPW</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDOT Bridge NY;</i>
Time line	<i>one month</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #8 - Zena-Sawkill Road Culvert Replacement</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Currently an under-sized culvert causes inundation of a well-traveled road during moderate flows resulting in a roadway that becomes impassable and results in a 2-mile detour through a dense residential neighborhood.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement;</i>
Action description	<i>This project will re-size and replace a small culvert on Zena Rd. by the Zena Health Center, where water flows over the road. Project location is Longitude: -74.076239, Latitude: 42.014197</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway</i>
Cost estimate	<i>\$25,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of the low project cost.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will work with Ulster County (County-owned infrastructure) to mitigate</i>
Legal	<i>In the town's jurisdiction, but structure is County responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Ulster County DPW would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising Plan;</i>
Responsible party	<i>Ulster County DPW</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDEC Hudson River Estuary Habitat Connectivity/ Resiliency grants</i>
Time line	<i>one month</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #9 - Glenford-Wittenberg Road Culvert Replacement</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Currently an under-sized/clogged culvert causes inundation on well-traveled road in a populated neighborhood during small flow events. The impasse results in a 15-mile detour over top of Ohayo Mountain.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement;</i>
Action description	<i>This project will replace a small culvert on Glenford/Wittenberg Rd (by Pond Rd). It is likely (part of project would be H&H analysis) that the culvert is undersized (or partially plugged) that causes localized flooding in a residential neighborhood; Longitude: - 74.189395 Latitude: 42.020142,</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will improve the capacity of stormwater during medium flow events, thus protecting the roadway</i>
Cost estimate	<i>\$10,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will work cooperatively with Ulster County DPW</i>
Legal	<i>In the town's jurisdiction, but structure is County responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Ulster County DPW would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Town DPW has flagged as needing remediation</i>
Responsible party	<i>Ulster County DPW</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Stream Management Implementation Program grant</i>

Time line	<i>one month</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #10 -Ohayo Mtn Rd Infrastructure Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Just outside of the hamlet of Woodstock, a portion (300' of road) is slumping into the Saw Kill. There are areas where guard rails are sinking into the stream, where the road is eroding into the stream, and where the stream is undermining the road.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would stabilize the embankment, protect the roadway throughout this stretch of the Mill Stream/Ohayo Mountain Road where it runs alongside the Sawkill stream which provides critical access to the town center. Longitude: -74.119385, Latitude: 42.036905</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the roadway and prevent further loss to the stream.</i>
Cost estimate	<i>\$300,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of repetitively inundated roadways (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will assist Ulster County as needed</i>
Legal	<i>In the town's jurisdiction, but structure is County responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Ulster County DPW would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>High</i>
Local planning mechanism	<i>Town DPW and Board have deemed necessary;</i>
Responsible party	<i>Ulster County DPW</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDEC Hudson River Estuary Grants Program</i>
Time line	<i>three months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #11 -Preemptive Infrastructure Protection - Hutchin Hill Rd</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Approximately 500' of high, actively eroding streambank is contributing large woody debris to the Sawkill Creek, which ultimately deposits the trees in the vicinity of a downstream bridge that provides access to several dozen homes.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would stabilize 500 feet of embankment where a massive hillslope failure in inputting sediment and woody debris into the Sawkill Creek 800' upstream of the MacDaniel Road bridge. This failure is a woody debris source for the stream and the accumulating debris are directly upstream of a town bridge. Longitude: -74.158803, Latitude: 42.069766</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream bridge and the roadway - while preventing further loss to the stream.</i>
Cost estimate	<i>\$1,000,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Over time, mitigation of continually failing embankments (that sustain damage) will be cost effective. Benefits are difficult to quantify, but anticipated to be in excess of project cost as avoided damages will be to downstream road and bridge infrastructure</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements; habitat restoration</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Woodstock DPW have monitored over year and conditions worsen annually</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDEC Hudson River Estuary Grants Program</i>
Time line	<i>6 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #12 -Preemptive Infrastructure Protection - Old Keefe Hollow</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>A large, and recent (appeared after TS Irene) hillslope failure in Old Keefe Hollow slope along the Sawkill Creek is forcing the stream at Old Keefe Hollow Rd. This problem started in 2011, and each high water event since continues to take more embankment away, causing stream to migrate toward road.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would stabilize the embankment where a massive hillslope failure has formed. After stabilization of the toe of the embankment, the stream channel would be re-aligned to keep it away from the road. Longitude: -74.150066, Latitude: 42.076035</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream bridge and the roadway - while preventing further loss to the stream.</i>
Cost estimate	<i>\$350,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits with multiple aspects over long periods of time, such as this, are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements;</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Town DPW has monitored and conditions worsen annually indicating need for inclusion</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDEC Hudson River Estuary Grants Program</i>
Time line	<i>6 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #13 -Preemptive Infrastructure Protection - Sawkill Stream Debris</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Over the course of several large flooding events, two larges piles of large woody debris have accumulated near several homes along the Sawkill Creek. This accumulation has caused the stream to migrate towards several homes and has caused loss of property. Additionally, the threat of mobilization of material during the next high flow events would jeopardize a downstream bridge and road infrastructure.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would remove approximately 1500' of large woody debris and gravel from Sawkill Stream, just east of municipal wells and west of hamlet of Woodstock. Each high water event continues to take more embankment away, causing stream to migrate toward road and homes. Locations are: Longitude: -74.140749, Latitude: 42.036559; Longitude: -74.133341, Latitude: 42.037346</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream bridge and the roadway - while preventing further loss of private property and homes along the stream.</i>
Cost estimate	<i>\$25,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits for projects such as this, are often difficult to quantify, but will be be cost-effective over a the lifespan of the project because of damages avoided to downstream infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>Medium</i>

Local planning mechanism	<i>NY Rising; Sawkill Creek Stream Management Plan</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; NYSDEC Hudson River Estuary Grants Program</i>
Time line	<i>1 month</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #14 - Mink Hollow Stream Infrastructure Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Over the course of large flooding events, a long retaining wall has been compromised and undercut. Each additional high water event causes more collapse and a greater threat to private homes and infrastrucutre behind it.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would restore the structural integrity of an in-stream rock retaining wall on Mink Hollow Road of approximately 800' in length. As this wall continues to deteriorate, it is putting downstream properties at risk of property loss and perhaps even inundation from higher flows. Location is Longitude: -74.189503; Latitude: 42.073644</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream property owners while preventing lateral migration of the stream towards Mink Hollow Road.</i>
Cost estimate	<i>\$300,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits wth multiple aspects over long periods of time, such as this, are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising; Beaverkill Stream Management Plan</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Flood Hazard Mitigation Implementation Program (FHMIP); Stream Management Implementation Grants (SMIP)</i>
Time line	<i>6 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #15 -Upgrade of NYS Route 212- Stormwater Conveyance</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Currently, poor drainage leads to roadway inundation because storm drains become overwhelmed. Roadway inundation during Hurricane Irene and Tropical Storm Lee, resulted in road closures cutting off access to Woodstock's Central Business District, impacting business owners, and preventing residents from accessing much needed supplies.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement</i>
Action description	<i>Upgrade the drainage system along a one mile stretch of Route 212 from Route 375 to the Post Office using green infrastructure features for stormwater management. Upgrading the stormwater management system utilizing sustainable infrastructure would improve drainage along this one mile stretch of road protecting access during and after future storm events. Location is approximately Longitude: -74.116705, Latitude: 42.040270</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream bridge and the roadway - while preventing further loss of private property and homes along the stream.</i>
Cost estimate	<i>\$2,500,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Benefits with multiple aspects over long periods of time, such as this, are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and would work with NYSDOT to ensure a successful project</i>
Legal	<i>In the town's jurisdiction, but structure is County responsibility, and Town supports the project.</i>
Environmental	<i>will improve environment by better capturing and treating stormwater from failing system</i>
Social	<i>none</i>
Administrative capability	<i>NYSDOT would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>High</i>
Local planning mechanism	<i>NY Rising</i>

Responsible party	<i>NYSDOT</i>
Potential funding sources	<i>NY Rising; NYSDOT budget</i>
Time line	<i>1 year</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #16 -Relocate Existing Emergency Water Main Connection to Town Hall</i>
Assessing the Risk	
Hazard(s) addressed	<i>drought</i>
Risk finding	<i>Currently, the town does not have an adequate back up water supply in periods of drought. This project would resolve that by providing better access to the City of Kingston's supply which is located in the Town of Woodstock.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>water supply protection</i>
Action description	<i>Relocate existing emergency connection between Kingston Water District main line and the municipal water supply to the Woodstock Town Hall to provide for filtration and for emergency access during drought conditions. Equipment installed as part of this project will be protected to the 500 year level if located in a floodplain.</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will allow improved access to potable water during drought conditions with the Town's water supply</i>
Cost estimate	<i>\$750,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; repairing recurring damage and constant maintenance will be costs avoided, therefore over the project lifespan the project will be cost effective.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will work with the City of Kingston on the project</i>
Legal	<i>In the town's jurisdiction, but structure is City of Kingston responsibility, and Town supports the project.</i>
Environmental	<i>none</i>
Social	<i>none</i>
Administrative capability	<i>Woodstock Town Board would lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>NY Rising</i>
Responsible party	<i>Woodstock Town Board, City of Kingston</i>

Potential funding sources	<i>NY Rising; NYS Environmental Facilities Corporation grants</i>
Time line	<i>2 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #17 - Mink Hollow Road Infrastructure Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>High flow events continue to cause the lateral migration of the Mink Hollow Stream towards the roadway that is a dead end and serve more than 30 homes above this location.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement; infrastructure protection</i>
Action description	<i>Project would restore the stream channel alignment in the vicinity of a newly-constructed retaining wall along Mink Hollow Road, and other locations as yet to be determined. Project would further protect ingress/egress to this dead end road. Project would be approximately 600' in length. Location is Longitude: -74.177642; Latitude: 42.088246</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream property owners while preventing lateral migration of the stream towards Mink Hollow Road.</i>
Cost estimate	<i>\$500,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits with multiple aspects over long periods of time, such as this, are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Beaverkill Stream Management Plan</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Flood Hazard Mitigation Implementation Program (FHMIP); Stream Management Implementation Grants (SMIP)</i>
Time line	<i>4 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #18 - Mink Hollow Stream Hillslope Stabilization</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Project would restore two large, actively-eroding embankments that continue to supply the stream with debris material (sediment and wood), causing deposition and stream migration downstream. The accumulation of this material is now threatening public infrastructure (Van Hoagland road and bridge).</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>infrastructure protection</i>
Action description	<i>Significant stream bank restoration/hillslope modification would be done, such as construction of a "toe" on each of these failing hillslopes and improve the drainage (from the mountainside) directing water around these fine sediment areas. In addition re-vegetation would be done and the debris source would be eliminated. Each failure is roughly 200 feet in length and 30 feet high. Additional mitigation work may be required in Mink Hollow, as yet to be determined. Locations are: Longitude: -74.172509; Latitude: 42.092696 and Longitude: -74.173447; Latitude: 42.090857</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the downstream property owners while preventing lateral migration of the stream towards Mink Hollow Road.</i>
Cost estimate	<i>\$800,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits with multiple aspects over long periods of time, such as this, are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive</i>
Legal	<i>none</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Highway Dept. would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>none</i>
Implementing the Action	

Priority	<i>Medium</i>
Local planning mechanism	<i>Beaverkill Stream Management Plan</i>
Responsible party	<i>Town of Woodstock Highway Dept.</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NY Rising Community Reconstruction Program; Flood Hazard Mitigation Implementation Program (FHMIP); Stream Management Implementation Grants (SMIP)</i>
Time line	<i>6 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #19 - Route 212 Streambank Stabilization and Road Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>Particularly after TS Irene, and in subsequent smaller flows, a long embankment has been compromised and continues to undermine a major access roadway for half of the town's population.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>infrastructure protection</i>
Action description	<i>Project would seek to protect a 500-foot long embankment along NYS Route 212 to prevent loss of roadway. If this were to wash out, the resulting detour would be 45 minutes. In addition to ingress/egress, the embankment material is very fine and presents a water quality problem downstream. Location is Longitude: -74.258921; Latitude: 42.056681</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the roadway - while preventing further loss of private property downstream (as stream is migrating) and homes along the stream.</i>
Cost estimate	<i>\$350,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>public health and safety are benefits; Benefits with multiple aspects over periods of years, such as this, are difficult to quantify, but anticipated to be in excess of project costs, for a cost-effective project over a 75-100 year lifespan of new infrastructure.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will work collaboratively with NYSDOT</i>
Legal	<i>In the town's jurisdiction, but roadway is State responsibility, and Town supports the project.</i>
Environmental	<i>will improve the environment by preventing erosion; NYSDEC permit needed</i>
Social	<i>none</i>
Administrative capability	<i>NYSDOT would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>
Other community objectives	<i>capital improvements</i>
Implementing the Action	
Priority	<i>High</i>
Local planning mechanism	<i>Beaverkill Stream Management Plan</i>
Responsible party	<i>NYSDOT</i>

Potential funding sources	<i>Emergency Watershed Protection (EWP) program; NYSDOT budget; Stream Management Implementation Grants program</i>
Time line	<i>2 years</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #20 - Ideal Park Road Bridge Protection</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>This privately-owned bridge is under-sized and causes a constriction particularly during higher flow events. The bridge has been damaged several times, preventing access to the 13 homes on the other side of the Beaverkill.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>infrastructure protection</i>
Action description	<i>Project would repair undermined right abutment and begin to explore options to increase the span of the structure to accommodate the natural width of the stream and regain the left floodplain. The bridge is believed to be under-sized. Location is Longitude: -74.245542; Latitude: 42.065552</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>This will protect the bridge and prevent further loss of private property and access to it for the 13 homes that exist across the stream.</i>
Cost estimate	<i>\$100,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; Benefits are difficult to quantify, but will be a cost-effective project over a 75-100 year lifespan of new infrastructure because of reduction in inundation-related damages to nearby homes.</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town Board is supportive and will work hand-in-hand with the affected homeowners</i>
Legal	<i>In the town's jurisdiction, but structure is private homeowners responsibility, and Town supports the project.</i>
Environmental	<i>NYSDEC permit needed; likely will reduce flood water surface elevations upstream</i>
Social	<i>none</i>
Administrative capability	<i>private landowners</i>
Local champion	<i>private landowners</i>
Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Beaverkill Stream Management Plan</i>
Responsible party	<i>private landowners</i>
Potential funding sources	<i>Emergency Watershed Protection (EWP) program; Stream Management Implementation Grants (SMIP); private funding</i>

Time line	<i>6 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #21 - Mink Hollow Bridge Capacity Evaluation & Analysis</i>
Assessing the Risk	
Hazard(s) addressed	<i>Flooding</i>
Risk finding	<i>Bridge has been damaged by repetitive flooding and in constant need of repair; approximately 30 homes above this presumably undersized bridge would be cut-off on a dead end road if it washed out</i>
Describing the Action	
Action category	<i>planning</i>
Action type	<i>flood mitigation</i>
Action description	<i>This project would involve hiring a consultant to assess and evaluate whether or not the structure causes a stream constriction and the associated flood risks both up and downstream from it. Project will also look at the stream alignment with the bridge. Woodstock has repaired several times and a more permanent solution involving detailed engineering is required. Location is Longitude: -74.182116; Latitude: 42.082935</i>
Existing, future &/or NA	<i>protects existing and future development;</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>By pre-emptively addressing a known-to-be-undersized bridge the Town will avoid future losses as well as not putting its residents and emergency personnel at risk during/after a flood.</i>
Cost estimate	<i>\$10,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>TBD based upon results of the analysis</i>
Technical	<i>Technically feasible.</i>
Political	<i>Town is supportive, as are upstream homes;</i>
Legal	<i>none</i>
Environmental	<i>none</i>
Social	<i>none</i>
Administrative capability	<i>Town Highway Dept would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board, residents</i>
Other community objectives	<i>flood resiliency</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Beaverkill Stream Management Plan</i>
Responsible party	<i>Woodstock Town Highway Dept.</i>

Potential funding sources	<i>Stream Management Implementation Grants (SMIP)</i>
Time line	<i>3 months</i>
Reporting on Progress	
Action progress status	<i>New action</i>

Action Worksheet	
Your plan name	<i>Ulster County Multi-jurisdictional Hazard Mitigation Plan</i>
Your community name	<i>Town of Woodstock</i>
Community action number	<i>Woodstock #22 -Library Lane Flood Hazard Mitigation</i>
Assessing the Risk	
Hazard(s) addressed	<i>flooding</i>
Risk finding	<i>A block in the hamlet of Woodstock, bounded by Rt 212, Library Lane, North Street and Orchard Lane, is relatively flat and has a subterranean stream that runs under a portion of the Funeral Home. In a flood event, the small streams in this area cause the homes and businesses to sustain severe water damage. The Woodstock Library is one of the buildings that is affected.</i>
Describing the Action	
Action category	<i>structural</i>
Action type	<i>drainage improvement</i>
Action description	<i>This proposed project would be to elevate the half-dozen or so buildings that are impacted by groundwater and overbank flooding of the nearby Tannery Brook. The elevation of the structures would only be done once further analysis is concluded indicating that there is no other alternative and the cause of the inundation cannot be easily remedied. The Woodstock Library, funeral home, and a town facility are among those impacted by the flooding. Location is approximately Longitude: -74.122124, Latitude: 42.040548</i>
Existing, future &/or NA	<i>future and existing development</i>
Evaluating the Action	
Losses avoided (i.e., benefits)	<i>Prevention of inundation of Funeral Home, Library, and several other key properties in town;</i>
Cost estimate	<i>\$500,000 - \$1,000,000</i>
Cost effectiveness (i.e., benefit/cost)	<i>Public health and safety are benefits; avoiding recurring damage and constant maintenance will be costs avoided, therefore over the project lifesand the project will be cost effective and reduce NFIP premiums for policyholders.</i>
Technical	<i>Technically feasible.</i>
Political	<i>none</i>
Legal	<i>none; Town will work with the private property owners</i>
Environmental	<i>will improve environment by removing potential pollution from stormwater</i>
Social	<i>none</i>
Administrative capability	<i>Town of Woodstock Board would be lead</i>
Local champion	<i>Yes; Town of Woodstock town board</i>

Other community objectives	<i>none</i>
Implementing the Action	
Priority	<i>Medium</i>
Local planning mechanism	<i>Town and residents have flagged as a problem in need of remediation</i>
Responsible party	<i>Town of Woodstock</i>
Potential funding sources	<i>FEMA's Hazard Mitigation Assistance Grant program; NYSDHSES funding</i>
Time line	<i>3 to 5 years</i>
Reporting on Progress	
Action progress status	<i>New action</i>



Ulster County Multi-Jurisdictional Hazard Mitigation Plan Update

OUTREACH LOG:

Summary of Outreach Activities to the General Public and Other Stakeholders

Town of Woodstock

PARTICIPATING JURISDICTION: _____

DATE OF ACTIVITY	TYPE OF ACTIVITY	ACTIVITY DETAILS	LEAD DEPARTMENT AND/OR STAFF TITLE WHO UNDERTOOK ACTIVITY
<u>10/15/13</u>	<u>Letter</u>	<u>Letter to 26 community groups asking for their concerns/ideas/comments re: hazard mitigation</u>	<u>Supervisor's office/confidential secretary</u>
<u>10/17/13</u>	<u>Letter & Excel list</u>	<u>Letter to Art Snyder with list of community groups contacted. (See above.)</u>	<u>Supervisor's office/confidential secretary.</u>
<u>7/29/15</u>	<u>Letter to editor Woodstock Times</u>	<u>Letter informing residents of priority zones for mitigation in case of emergency.</u>	<u>Supervisor</u>
<u>7/30/15</u>	<u>Posted priority zones for mitigation in case of emergency</u>	<u>www.woodstockny.org</u> <u>Town of Woodstock Facebook page</u>	<u>Confidential Secretary</u>
<u>7/30/15</u>	<u>Posted to Town Bulletin boards</u>	<u>Posted list of priority zones for mitigation in case of emergency at:</u> <u>Town Clerk's Office</u> <u>Police Department/Town Hall</u> <u>Outside public bathrooms</u>	<u>Confidential Secretary/Custodial Department/Town Clerk</u>

**Please add additional pages as needed and return via email to Anna Foley at: anna.foley@urs.com.
For questions, please call 973-883-8500.**

DATE OF ACTIVITY	TYPE OF ACTIVITY	ACTIVITY DETAILS	LEAD DEPARTMENT AND/OR STAFF TITLE WHO UNDERTOOK ACTIVITY
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8/11/15	Discuss & Agenda item	Discussed at Town Board Meeting with public present.	Supervisor, two Town Board members
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8/12/15	email	email from constituent suggestion addition area in town to be added to mitigation list	Supervisor
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8/13/15	Article	Plan presented in Woodstock Times article	Informed by Supervisor's office
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