



Please use this worksheet to develop mitigation actions for your community. FEMA requires a minimum of one proposed mitigation activity that aligns with the identified hazards of concern for the HMP. One form for every mitigation action is needed. Instructions on how to complete each cell can be found starting on page 3 of this document. **Return completed worksheets to Tetra Tech by March 1<sup>st</sup>.**

This worksheet can also be completed online – <https://forms.office.com/r/y3a6nhmMkU>

Jurisdiction: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Email: \_\_\_\_\_

<b>Action Name:</b>			
<b>Description of the Problem:</b>			
<b>Hazard(s) of Concern:</b> <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input type="checkbox"/> Flood <input type="checkbox"/> Infestation and Invasive Species <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire	
<b>Description of the Solution:</b>			
<b>Lead Agency:</b>			
<b>Supporting Agencies:</b>			
<b>Impact on Critical Facilities/Lifelines:</b>			
<b>Estimated Cost:</b>			
<b>Potential Funding Sources:</b>	<i>Tetra Tech will address</i>		
<b>Implementation Timeline:</b>			
<b>Goals Met:</b>	<i>Tetra Tech will address</i>		
<b>Benefits:</b>			
<b>Mitigation Action Type:</b> <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category:</b> <i>Check all that apply</i>	<input type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Impact on Socially Vulnerable Populations:</b>			
<b>Impact on Future Development:</b>			
<b>Climate Change Considerations:</b>			
<b>Priority:</b> <i>Check one</i>	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low



For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?		
<b>Property Protection</b>	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?		
<b>Cost-Effectiveness</b>	Are the costs to implement the project or initiative commensurate with the benefits achieved?		
<b>Political</b>	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?		
<b>Legal</b>	Does the jurisdiction have the authority to implement the action?		
<b>Fiscal</b>	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?		
<b>Environmental</b>	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?		
<b>Social Vulnerability</b>	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.		
<b>Administrative</b>	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?		
<b>Hazards of Concern</b>	Does the action address one or more of the jurisdiction's high-ranked hazards?		
<b>Climate Change</b>	Does the action address one or more of the entity's high-ranked hazards?		
<b>Timeline</b>	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?		
<b>Community Lifelines</b>	Does this project benefit community lifelines?		
<b>Other Objectives</b>	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?		
<b>Total</b>			
<b>Priority (High/Med/Low)</b>			



## GUIDANCE TO COMPLETE THE MITIGATION ACTION ONLINE FORM

The following provides additional guidance on how to complete the Mitigation Action Online Form (<https://forms.office.com/r/y3a6nhmMkU>). Please note that FEMA requires a minimum of one proposed mitigation activity that align with the identified hazards of concern for the HMP. Please complete one form for every mitigation action.

## CONTACT INFORMATION

**Name:** Provide the name of the person completing the online form

**Title:** Provide the title of the person completing the online form

**Email:** Provide the email address of the person completing the online form

**Jurisdiction:** Provide the name of the jurisdiction you are completing the form for

## ACTION WORKSHEET ONLINE FORM

**Project Name:** Please identify a unique project name for the mitigation action.

**Project Number:** 2024-Jurisdiction-001.

## ASSESSING THE RISK AND VULNERABILITY

**Description of the Problem:** Provide a detailed narrative of the problem. Describe the hazard you wish to mitigate, its impacts to the jurisdiction, past damages and loss of service, etc. Include the street address of the property/project location (if applicable), adjacent streets, and easily identified landmarks such as water bodies and well-known structures, and end with a brief description of existing conditions (topography, terrain, hydrology) of the site.

**Hazard(s) of Concern:** Please identify the hazard(s) being addressed with this action.

- Dam/Levee Failure
- Disease Outbreak
- Drought
- Earthquake
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Infestation and Invasive Species
- Severe Storm (Lighting/Hail/Wind/Tornado/Thunderstorm)
- Severe Winter Storm (Snow/Ice/Blizzard)
- Wildfire

## ACTION/PROJECT INTENDED FOR IMPLEMENTATION

**Description of the Solution:** Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously



identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).

**Lead Agency:** Identify the lead agency (and department/bureau if applicable) responsible for implementing this action.

**Support Agency:** Identify any supporting agencies and/or departments that will partner with the lead agency to complete the action or any phase of the action.

**Critical Facility/Community Lifeline:** Indicate whether or not the identified project is related to a critical facility or lifeline in your community. If the project is related, describe how the action will reduce risk to the facility/lifeline.

**Estimated Cost:** Identify all estimate costs associated with completing and implementing the identified project.

**Potential Funding Source(s):** Identify multiple sources of potential funding. For example, FEMA HMGP, FMA, and BRIC Grants, CDBG-DR funding, FEMA HHPD, NYSDEC, etc. For ideas, refer to: [https://www.fema.gov/sites/default/files/2020-09/fema\\_region-03\\_mitigation-funding-resource-guide\\_new-york-09-24-2020.pdf](https://www.fema.gov/sites/default/files/2020-09/fema_region-03_mitigation-funding-resource-guide_new-york-09-24-2020.pdf) and [https://regionalcouncils.ny.gov/sites/default/files/2023-07/2023\\_Available\\_Resources\\_Guide.pdf](https://regionalcouncils.ny.gov/sites/default/files/2023-07/2023_Available_Resources_Guide.pdf)

**Timeline:** Identify the estimated timeline for project implementation (start to finish).

**Goals:** Identify the goal(s) the action meets.

1. Protect life, property, and the economy from natural hazards through planning, preparing, and mitigating.
2. Increase public awareness and enhance current outreach programs to provide resources to stakeholders, local government officials, businesses, and the general public on the different risks, resilience strategies, and safety measures associated with natural hazards.
3. Encourage, expand, and strengthen partnerships between government agencies, private sector businesses, and non-profit organizations to develop public outreach strategies and provide resources and involvement before, during, and after disasters, and to create a more resilient Broome County.
4. Enhance emergency service planning to include natural hazard event planning impacts on populations and property.
5. Improve resilience of critical facilities, community lifelines, and other buildings located within hazard-vulnerable areas to reduce impacts of natural hazard events and climate change-influenced hazards in Broome County.
6. Ensure consistency between goals, objectives, and mitigation strategies from the Broome County Hazard Mitigation Plan with existing and future land-use planning documents, existing regulatory programs, zoning code updates and flood damage prevention ordinances, as well as State and Federal hazard mitigation strategies.

**Estimated Benefits:** Identify the benefits that implementation of this project will provide (e.g., risk reduction). If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.

**Mitigation Action Type:**

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as



well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.

- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

#### Community Rating System (CRS) Categories:

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

**Social Vulnerability:** Identify whether or not the action reduces risk for underserved communities and/or socially vulnerable populations. If it does, provide an explanation as to how it reduces risk.

**New Development:** Identify whether or not the action reduces risk in areas that are under development pressures. If it does, provide an explanation as to how it reduces risk.

**Capabilities:** Identify whether or not the action supports/improves/develops local mitigation capabilities. If it does, explain how the action supports/improves/develops capabilities.

**Climate Change:** Identify whether or not the action considers/addresses anticipated changes to hazards as a result of climate change. If it does, explain how.

## PLAN FOR IMPLEMENTATION

**Prioritization:** Please enter High/Medium/Low. Refer to the prioritization exercise and table.



## GUIDANCE TO COMPLETE THE PRIORITIZATION TABLE

For each criteria, identify whether it is high effectively/feasible, neutral, or ineffective/not feasible for the mitigation action. The 14 evaluation/prioritization criteria are:

1. Life Safety - How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?
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Please complete the online form (one for each action) by **March 1st**. The online form is available here:  
<https://forms.office.com/r/y3a6nhmMkU>

### Guidance to Complete the Mitigation Action Online Form

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### Action Worksheet Online Form

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**Climate Change:** Identify whether or not the action considers/addresses anticipated changes to hazards as a result of climate change. If it does, explain how.

### Plan for Implementation

**Prioritization:** Please enter High/Medium/Low. Refer to the prioritization exercise and table.

### Guidance to Complete the Prioritization Table

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## Building Resilient Infrastructure and Communities (BRIC)

### FY 2023 Priorities:

- Incentivize natural hazard risk reduction activities to include those that address multi-hazards that mitigate risk to public infrastructure and disadvantaged communities as referenced in EO 14008;
- Incorporate nature-based solutions including those designed to reduce carbon emissions;
- Enhance climate resilience and adaptation; and
- Increase funding to applicants that facilitate the adoption and enforcement of the latest published editions of building codes.

## Flood Mitigation Assistance (FMA)

### FY 2023 Priorities:

- Capability- and-Capacity-Building Activities which enhance the knowledge, skills, expertise, etc., of the current workforce to expand or improve the administration of Flood Mitigation Assistance. These activities may be used to develop future Localized Flood Risk Reduction Projects and/or Individual Flood Mitigation Projects that will subsequently reduce flood National Flood Insurance Program (NFIP) claims.
- Localized Flood Risk Reduction Projects (previously Community Flood Mitigation Projects) to address community flood risk for the purpose of reducing national Flood Insurance Program flood claim payments.
- Individual Flood Mitigation Projects that mitigate the risk of flooding to individual NFIP-insured structures. FEMA will select eligible Individual Flood Mitigation Project subapplications on a competitive basis.
- FMA aims to incentivize flood mitigation activities and projects that advance equity and that will benefit disadvantaged communities.

## Hazard Mitigation Grant Program (HMGP)

### General Requirements for Projects:

- Solves a problem by preventing or substantially reducing hazard consequences and future risks.
- Has a beneficial impact by providing long-term meaningful and definable risk reduction benefits.
- Is cost effective with a project cost that is less than the loss from potential future damages.
- Is environmentally sound, creating no negative impacts on the environment, impoverished or minority populations, or surrounding communities.
- Complies with all state and federal laws, rules, and administrative requirements

## High Hazard Potential Dams (HHPD) Funding Opportunity

### FY 2024 Priorities: technical, planning, design, pre-construction activities related to the repair, removal, or rehabilitation of eligible high hazard dams

- Can be used to fund the following activities for non-federally owned dams: planning and design activities; rehabilitation, repair, and removal
- Dams considered eligible for the Rehabilitation of High Hazard Potential Dams grant must:
  - Be non-federal dams
  - Be located in a state with a dam safety program and regulated under that state dam safety program
  - Be classified as high hazard potential by the relevant dam safety agency
  - Have an Emergency Action Plan



- Have a condition assessment rating of Poor or Unsatisfactory as identified in the National Inventory of Dams (NID)
- Not be a licensed hydroelectric dam under a hydropower project with an authorized installed capacity of greater than 1.5 megawatts
- Not be built under the authority of the Secretary of Agriculture

### Eligible Activities by Program

Eligible Activities	HMGP	HMGP Post Fire	BRIC	FMA	HHPD
<b>1. Capability- and Capacity-Building</b>					
New Plan Creation and Updates	X	X	X	X*	-
Planning-Related Activities	X	X	X	-	-
Project Scoping/Advance Assistance	X	X	X	X	-
Financial Technical Assistance	-	-	-	X	-
Direct Non-financial Technical Assistance	-	-	X	-	-
Partnerships	-	-	X	X	-
Codes and Standards	X	X	X	-	-
Innovative Capability- and Capacity- Building <sup>†</sup>	X	X	X	X	-
<b>2. Mitigation Projects</b>					
Property Acquisition	X	X	X	X	-
Structure Elevation	X	X	X	X	-
Mitigation Reconstruction	X	X	X	X	X
Localized Flood Risk Reduction	X	X	X	X	X
Non-Localized Flood Risk Reduction	X	X	X	X**	-
Stabilization	X	X	X	X	-
Dry Floodproofing Non-Residential Building	X	X	X	X	-
Tsunami Vertical Evacuation	X	X	X	-	-
Safe Room	X	X	X	-	-
Wildfire Mitigation	X	X	X	-	-
Retrofit	X	X	X	X <sup>†</sup>	X
Secondary Power Source	X	X	X	-	-
Warning System (excluding earthquake early warning system)	X	X	X	-	-
Earthquake Early Warning System	X	X	X	-	-
Aquifer Recharge, Storage and Recovery	X	X	X	X***	-
Innovative Mitigation Project <sup>††</sup>	X	X	X	X	-
<b>3. Management Costs</b>	X	X	X	X	-

\* For FMA, new plans and plan updates must provide for the reduction of flood losses to structures for which National Flood Insurance Program (NFIP) coverage is available.<sup>96</sup>

\*\* For FMA, non-localized flood risk reduction projects such as dikes, levees, floodwalls, seawalls, groins, jetties, dams and large-scale waterway channelization projects are not eligible unless the administrator specifically determines in approving a mitigation plan that such activities are the most cost-effective mitigation activities for the National Flood Mitigation Fund.

\*\*\* For FMA, aquifer recharge, storage and recovery projects may be eligible under FMA if the purpose of the project is to provide flood mitigation benefits to NFIP participating communities and is demonstrated to eliminate future claims against the NFIP.

† Only flood-related retrofitting projects are eligible.

†† Innovative Capability- and Capacity-Building Activities and Innovative Mitigation Projects not described in the HMA Guide will be evaluated on their own merit against program requirements. Eligible activities will be approved on a case-by-case basis if assistance is available.



## Broome County Hazard Mitigation Plan | Mitigation Catalog

The purpose of this document is to help identify and evaluate potential mitigation actions for reducing risk to the hazards of concern in Broome County. Remember, you will need to identify one mitigation action per hazard of concern, but one mitigation action can cover multiple hazards. Refer to FEMA's *Mitigation Ideas* for an additional resource in identifying actions - [https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas\\_02-13-2013.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-mitigation-ideas_02-13-2013.pdf)

Select the hazard name below (click hazard) to take you to the list of mitigation ideas for that hazard.

- Dam and Levee Failure
- Disease Outbreak/Pandemic
- Drought
- Earthquake
- Extreme Temperature
- Flood
- Invasive and Nuisance Species
- Severe Storm
- Severe Winter Storm
- Wildfire



## Dam and Levee Failure

### DAM AND LEEVE FAILURE

#### Mitigation Ideas

- **Manipulate the hazard:**
  - Remove dams or levees
  - Harden dams or levees
  - Set back levees
- **Reduce exposure and vulnerability to the hazard:**
  - Replace earthen dams or levees with hardened structures such as floodwalls
  - Relocate critical facilities out of dam or levee failure inundation areas
  - Consider open space land use in designated dam or levee failure inundations areas
  - Elevate home to appropriate levels
  - Have designated shelters/temporary/permanent housing locations for displaced persons
  - Floodproof facilities within dam or levee failure inundation areas
  - Adopt higher floodplain standards in mapped dam or levee failure inundation areas
  - Retrofit critical facilities within dam or levee failure inundation areas
- **Build local capacity to respond to or prepare for the hazard:**
  - Learn about risk reduction for the dam failure hazard
  - Learn the evacuation routes for a dam failure event
  - Educate the public on early warning systems and the dissemination of warnings
  - Map dam or levee failure inundation areas
  - Enhance emergency operations plans to include a dam and/or levee failure component
  - Institute monthly communications checks with dam and levee operators
  - Inform the public on risk reduction techniques
  - Adopt real-estate disclosure requirements for the re-sale of property located within dam or levee failure inundation areas
  - Consider the probable impacts of climate change in assessing the risk associated with the dam or levee failure hazard
  - Establish early warning capability downstream of listed high-hazard dams
  - Consider the residual risk associated with protection provided by dams and/or levees in future land use decisions
  - Increase ability to respond quickly to events
- **Nature-based opportunities:**
  - Restore and reconnect floodplains that have been degraded by development and structural flood control.
  - Set back levees on systems that rely on levee protection to allow the river channel to meander, which reduces erosion and scour potential.
  - Acquire property within the floodplain, remove or relocate structures, and preserve these areas as open space in perpetuity.
  - Preserve floodplain storage capacity by limiting or prohibiting the use of fill within the floodplain.
  - Incorporate green infrastructure into stormwater management facilities.
  - Protect and/or restore riparian buffers.



## Disease Outbreak/Pandemic

### DISEASE OUTBREAK/PANDEMIC

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - None identified at this time to mitigate this hazard
- **Reduce exposure and vulnerability to the hazard:**
  - PPE
  - Social distancing
  - Distanced work environment
  - Regular cleaning of work environment
- **Increase Capability:**
  - Storage of PPE
  - Equipment for monitoring/treatment
  - Trainings for staff
  - Public outreach and outreach
  - Maintain strong health regulations
- **Nature-based opportunities:**
  - None identified at this time to mitigate this hazard



## Drought

### DROUGHT

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - Ground water recharge through stormwater management
  - Improve water storage capacities
- **Reduce exposure and vulnerability to the hazard:**
  - Identify and create groundwater backup sources
  - Water use conflict regulations
  - Reduce water system losses
  - Increase conventional storage that is filled during high-flow periods
  - Create water storage space to capitalize on big storms when they occur and store water for dry periods
- **Increase Capability:**
  - Public education on drought resistance
  - Identify alternative water supplies for time of drought; mutual aid agreements with alternative suppliers.
  - Develop a drought contingency plan
  - Develop criteria triggers for drought related actions
  - Improve accuracy of water supply forecasts
  - Consider the probable impacts of climate change on the risk associated with the drought hazard
  - Support, participate in and advocate for funding for the Integrated Regional Water Management program
  - Support, encourage, and implement multi-benefit nature-based recharge projects such as off-channel wetlands that provide habitat and groundwater filtration and infiltration
  - Improve data collection and modernize forecasts for a changed climate
- **Nature-based opportunities:**
  - Promote and use reclaimed water supplies
  - Promote and use active groundwater recharge
  - Drought-resistant native vegetation planting



## Earthquake

### Earthquake Mitigation Ideas

- **Manipulate the Hazard:**
  - None
- **Reduce exposure and vulnerability to the hazard:**
  - Locate critical facilities or functions outside of hazard area where possible.
  - Harden infrastructure
  - Provide redundancy for critical functions
  - Adopt higher regulatory standards for structures
  - Conduct "rapid screening" programs for critical facilities to identify facilities that may be particularly prone to EQ damage, then develop investigation/action plans to address such structures
- **Increase Capability:**
  - Provide technical information and guidance
  - Enact tools to help manage development in hazard areas: tax incentives, information
  - Include retrofitting/replacement of critical system elements in CIP
  - Develop strategy to take advantage of post disaster opportunities
  - Warehouse critical infrastructure components such as pipe, power line, and road repair material.
  - Develop and adopt a Continuity of Operations / Continuity of Government Plan (COOP/COG)
  - Initiate triggers guiding improvements such as: (< 50% substantial damage/improvements)
  - Further enhance seismic risk assessment to target high hazard buildings for mitigation opportunities.
  - Develop a post disaster action plan that includes a grant funding and debris removal components.
  - Utilize warning systems
  - Educate builders and developers on seismic construction standards
  - Conduct geomorphological analysis of faults
- **Nature-based opportunities:**
  - Adopt land use regulations and policies that restrict or prohibit development in areas with high liquefaction susceptibility. Preserve these areas for open space uses



## Extreme Temperature

### EXTREME TEMPERATURE

#### Mitigation Ideas

- **Manipulate the hazard:**
  - Plant trees to create shade in urban areas
  - Conduct tree inventory and maintenance
- **Reduce exposure and vulnerability:**
  - Harden infrastructure such as locating utilities underground
  - Provide backup power sources at vital critical facilities
  - Establish warming centers
  - Consider “cool roofs” and “green roofs”
  - Relocate critical infrastructure (such as power lines) underground
  - Reinforce or relocate critical infrastructure such as power lines to meet performance expectations
  - Use the best available technology to enhance the warning systems for all severe weather events.
- **Build local capacity:**
  - Increase communication alternatives
  - Enhance public awareness campaigns to address issues of warnings and actions to take during extreme cold events.
  - Use the best available technology to enhance the warning systems for all severe weather events.
  - Coordinate severe weather warning capabilities and the dissemination of warning amongst agencies with the highest degree of capability.
  - Provide NOAA weather radios to the public
  - Retrofit above-ground utilities to underground facilities if appropriate
  - Create a salt reserve or research alternates to stretch salt reserve
- **Nature-based opportunities:**
  - Planting of native plants—including along parking lots, streets, and in yards—can provide cooling effects. Vertical gardens, also referred to as green or living walls, involves planting on walls to provide shade for buildings. This helps to cool the building and surrounding area.
  - Any solutions that convert built environments to natural environments such as forests, wetlands, and vegetation can aid in lowering temperatures. Natural environments and green vegetation provide more shade, moisture, and evaporation than built environments, all of which help reduce temperatures. These systems sequester carbon, helping to minimize future warming.



## Flood

### FLOOD

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - Clear stormwater drains and culverts
  - Structural flood control: levee's, dams, channelization, revetments.
  - Construct regional stormwater control facilities
  - Lead and develop a county-wide stream clearing strategy including the development of thresholds for response/action.
  - Maintain drainage system
  - Institute low-impact development techniques on property
  - Dredging, levee construction, and providing regional retention areas
  - Use structural flood control (levees, etc.) only when no nature-based alternative is feasible
  - Stormwater management regulations and master planning
  - Acquire vacant land or promote open space uses in developing watersheds to control runoff
- **Reduce exposure and vulnerability to the hazard:**
  - Harden infrastructure, bridge replacement program
  - Provide redundancy for critical functions and infrastructure Locate/re-locate critical facilities outside of hazard area
  - Acquire or relocate identified repetitive loss properties.
  - Promote open space uses in identified high hazard areas via techniques such as: PUD's, easements, setbacks, greenways, sensitive area tracks.
  - Institute low impact development techniques on property
  - Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff
  - Pass an ordinance to incorporate additional zoning classifications into flood zones within each municipality.
  - Consider increasing minimum freeboard beyond the state requirement
  - Harden structures and infrastructure (wet and dry-floodproofing)
  - Provide redundancy for critical functions and infrastructure
  - Adopt appropriate regulatory standards such as cumulative substantial improvement/damage, freeboard, lower substantial damage threshold, compensatory storage.
  - Stormwater management regulations and master planning.
  - Adopt "no-adverse impact" floodplain management policies that strive to not increase the flood risk on down-stream communities.
  - Participate in the Community Rating System (CRS)
  - Implement as-built regulatory requirements
  - Implement site review ordinances/requirements
  - Establish stream maintenance programs with stakeholders
  - Promote the use of vegetation/plants as green erosion control measures to reduce localized flooding.
  - Work with environmental groups to address removal of debris, log jams, etc. in flood vulnerable stream sections
- **Increase Capability**



## FLOOD

### Mitigation Ideas

- Produce better hazard maps, and improve access to flood hazard mapping
- Capture/survey "high-water" marks during flood events.
- Provide technical information and guidance on appropriate mitigation options available to businesses and homeowners
- Enact tools to help manage development in hazard areas (stronger controls, tax incentives, information)
- Establish an additional layer of zoning within flood hazard areas
- Develop strategy to take advantage of post disaster opportunities
- Improve compliance with and enforcement of the NFIP
- Develop mitigation partnerships with regional stakeholders
- Develop and implement a public information strategy for flood hazard awareness, flood insurance (NFIP) and mitigation
- Maintain existing data as well as gather new data needed to define risks and vulnerability.
- Create a building and elevation inventory of structures in the floodplain
- Identify flood prone areas that may be in need of new flood studies
- Establish a program to identify and educate owners of flood-prone properties of potential mitigation options (e.g. elevations, relocations)
- Charge a hazard mitigation fee on all new permits to create a hazard mitigation funding source for initiatives or grant cost share requirements.
- Integrate floodplain management policies into other planning mechanisms within the planning area.
- Establish a Stormwater Utility to deal with urban drainage/flooding issues
- Establish incentives to promote flood hazard mitigation of private property (e.g. permit fee waivers).
- Adopt ordinances/standards for cumulative damages and/or improvements
- Upgrade NFIP Floodplain ordinance, as well as other ordinances to current or above current state and federal standards.
- Develop and adopt a COOP
- Join "Storm Ready" Program
- Participate in county and regional training programs
- Provide additional training/certification to NFIP floodplain administrators and code officials.
- Implement annual training to account for turnover of municipal officials.
- Maintain and enhance flood forecasting ability, including the establishment and maintenance of critical stream gages
- Explore grant funding opportunities and potential partnerships to help maintain existing gages and install additional gages to improve forecasting and flood warning ability.
- Promote awareness and participation in alert systems
- Support and participate in regional flood management efforts
- Support and implement hazard disclosure for the sale/re-sale of property in identified risk zones.
- Provide continued and enhanced training for emergency responders
- Establish a revolving "bank" or budget line item to fund grant application support
- Continue to review updated Flood Insurance Rate Maps to ensure accuracy as well as maintaining lines of communication with homeowners to make them aware of potential changes related to their property status.
- Provide trainings for FPA's on the NFIP/Floodplain Best Practices and also pursue CFM accreditation for municipal FPA's.



## FLOOD

### Mitigation Ideas

- Build and maintain relationships to develop regional watershed/floodplain mitigation solutions.
- Pursue grant funding opportunities to fund repairs of catchments and infrastructure on a proactive basis.
- Explore grant funding opportunities related to climate change to fund mitigation projects.
- **Nature-Based Opportunities:**
  - Restore and reconnect floodplains that have been degraded by development and structural flood control.
  - Use soft approaches for stream bank restoration and hardening (e.g., the introduction of large woody debris into a system).
  - Set back levees on systems that rely on levee protection to allow the river channel to meander, which reduces erosion and scour potential.
  - Acquire property within the floodplain, remove or relocate structures, and preserve these areas as open space in perpetuity.
  - Preserve floodplain storage capacity by limiting or prohibiting the use of fill in the floodplain.
  - Incorporate green infrastructure into stormwater management facilities
  - Protect and/or restore riparian buffers



## Invasive and Nuisance Species

### INVASIVE AND NUISANCE SPECIES

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - Participate in quarantine, control, or eradication programs.
  - Work with Federal/State agencies on quarantine, control, or eradication programs for invasive species.
- **Reduce exposure and vulnerability to the hazard:**
  - Form citizen action groups to promote awareness and best practices on local levels.
  - Create/disseminate planting guides which explain which types of plants and vegetation are safe to plant within the state.
  - Pass municipal ordinances to enforce best practices for invasive species at the local level.
- **Increase Capability:**
  - Regularly check the NYSDEC invasive species page for updated information.
  - Comply with invasive species rules and regulations to minimize the chance for invasive species to spread.
  - Broaden collaborations focused on ecosystem restoration and ecosystem-based management.
  - Build and maintain partnerships with other stakeholders to coordinate information sharing, and response for invasive species throughout the county/region.
  - Work with federal/state agencies to disseminate information to local municipalities regarding invasive species from the NYSDEC and U.S. EPA.
  - Disseminate information to the general public to educate them on invasive species.
  - Work with stakeholders to identify and expand resources for prevention and early detection of invasive species.
  - Broaden collaborations focused on ecosystem restoration and ecosystem-based management.
  - Build ecological restoration planning into invasive species management projects.
- **Nature-based opportunities:**
  - Verify that plants purchased for a yard or garden are not invasive. Replace invasive plants in gardens with non-invasive alternatives. Ask local nursery staff for help in identifying invasive plants.
  - When boating, clean the boat thoroughly before transporting it to a different body of water.
  - Clean boots before hiking in a new area to get rid of hitchhiking weed seeds and pathogens.
  - Do not “pack a pest” when traveling. Fruits and vegetables, plants, insects, and animals can carry pests or become invasive themselves. Do not move firewood (it can harbor forest pests). Clean bags and boots after each hike. Throw out food before traveling from place to place.
  - Do not release aquarium fish and plants, live bait, or other exotic animals into the wild. Before acquiring an exotic pet, do research and plan ahead to understand the commitment involved in caring for it.



## Severe Storm

### SEVERE STORM/HURRICANE/TORNADO

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - None identified at this time to mitigate this hazard
- **Reduce exposure and vulnerability to the hazard:**
  - Harden or relocate infrastructure such as locating utilities underground.
  - Trimming trees back from power lines
  - Designate and strengthen critical road sections and bridges.
  - Adopt ordinances that regulate the type and quantity of trees planted near utility lines
  - Use the best available technology to enhance the warning systems for all severe weather events.
- **Increase Capability:**
  - Enforce building codes to withstand wind speeds
  - Increase communication alternatives
  - Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.
  - Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines
  - Promote awareness and participation in alert systems
  - Provide NOAA weather radios to the public
  - Create/Enhance "mutual aid" agreements for response to all emergencies
  - Create/identify evacuation routes to be utilized during severe storm events.
  - Develop debris management plans.
  - Join "Storm-Ready" program
  - Provide early warning of impending severe storm events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals
  - Promote emergency power supplies to private property.
  - Improve, expand or harden communications facilities and services
  - Recruit additional emergency personnel or use mutual aid agreements
  - Increase sheltering capabilities
  - Increase capability to respond to power outages and downed power lines.
  - Establish partnerships with utility providers through pro-active planning.
- **Nature-based opportunities**
  - None identified at this time to mitigate this hazard



## Severe Winter Storm

### SEVERE WINTER STORM

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - None identified at this time to mitigate this hazard
- **Reduce exposure and vulnerability to the hazard:**
  - Harden infrastructure such as locating utilities underground where appropriate.
  - Trimming trees back from power lines
  - Designate snow routes and strengthen critical road sections and bridges.
  - Provide backup power sources at vital critical facilities.
- **Increase Capability:**
  - Support programs that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.
  - Establish and enforce building codes that require all roofs to withstand snow loads
  - Increase communication alternatives
  - Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.
  - Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines
  - Provide weather radios to vulnerable populations
  - Enhance public awareness campaigns to address those issues of alert and warning and actions to take during severe weather events.
  - Utilize the best available technology to enhance the warning systems for all severe weather events
  - Coordinate severe weather warning capabilities and the dissemination of warning amongst those agencies within the planning are with the highest degree of capability.
  - Encourage local ordinances for planting tree near lines and join Tree City USA.
  - Increase tree managements.
  - Join "Storm-Ready"
  - Retrofit critical structures and promote hazard resistant construction
  - Retrofit above-ground utilities to underground facilities if appropriate
  - Create a salt reserve or research alternates to stretch salt reserve.
  - Ensure accessibility to hospitals.
  - Provide better debris logistics and removal.
  - Provide better communication systems and back-up communication systems to inform public of hazards and to communicate during the hazard event.
- **Nature-based opportunities**
  - None identified at this time to mitigate this hazard



## Wildfire

### WILDFIRE

#### Mitigation Ideas

- **Manipulate the Hazard:**
  - Clear potential fuels on property such as dry overgrown underbrush and diseased trees
- **Reduce exposure and vulnerability to the hazard:**
  - Create and maintain defensible space around structures and infrastructure
  - Locate outside of hazard area
  - Create and maintain defensible space around structures and infrastructure and provide water on site
  - Use fire-resistant building materials
  - Use fire-resistant plantings in buffer areas of high wildfire threat
- **Increase Capability:**
  - Support Firewise USA community initiatives
  - Create/establish stored water supplies to be utilized for firefighting
  - Identify fire response and alternative evacuation routes and establish where needed
  - Seek alternative water supplies
  - Establish/maintain mutual aid agreements between fire service agencies
  - Develop, adopt, and implement integrated plans for mitigating wildfire impacts in wildland areas bordering on development
  - Consider the probable impacts of climate change on the risk associated with the wildfire hazard in future land use decisions
- **Nature-based opportunities**
  - Manage invasive species (e.g., Hemlock Woolly Adelgid, Emerald Ash Borer) that are susceptible to increased wildfire risk
  - Incorporate nature-based wildfire risk reduction buffers into existing ecosystem-friendly land uses (e.g., green space, trails, or community parklands)
  - Implement and fund ecological thinning and prescribed fire and cultural fire and, where appropriate, manage wildfire for resource benefit



## Broome County Hazard Mitigation Plan | Identified Problems and Vulnerabilities

This document provides a summary of risk assessment results, critical facility exposure, input from your community, and feedback from the public survey. Please use this to help identify mitigation actions to include in the 2024 Hazard Mitigation Plan. If you have any questions, please reach out to your assigned Tetra Tech planner.

Click on your municipality's name from the list below to take to details for your community.

Broome County/Countywide/Multiple Municipalities

Barker (T)

Binghamton (C)

Binghamton (T)

Chenango (T)

Colesville (T)

Conklin (T)

Deposit (V)

Dickinson (T)

Endicott (V)

Fenton (T)

Johnson City (V)

Kirkwood (T)

Lisle (T)

Lisle (V)

Maine (T)

Nanticoke (T)

Port Dickinson (V)

Sanford (T)

Triangle (T)

Union (T)

Vestal (T)

Whitney Point (V)

Windsor (T)

Windsor (V)



**Broome County/Countywide/Multiple Municipalities**

Hazards

The below table shows the number of buildings in the 1% SFHA and the percent total of buildings in the SFHA:

Municipality	Buildings in the SFHA	Percent of Total Bldgs. in the SFHA
Barker (T)	51	4.0%
Binghamton (C)	2,658	10.5%
Binghamton (T)	1	0.0%
Chenango (T)	150	2.9%
Colesville (T)	108	4.4%
Conklin (T)	500	19.8%
Deposit (V)	96	20.5%
Dickinson (T)	9	0.6%
Endicott (V)	1,133	16.2%
Fenton (T)	66	2.1%
Johnson City (V)	297	3.8%
Kirkwood (T)	152	5.8%
Lisle (T)	26	2.3%
Lisle (V)	37	27.4%
Maine (T)	93	3.8%
Nanticoke (T)	28	3.7%
Port Dickinson (V)	82	9.7%
Sanford (T)	20	1.4%
Triangle (T)	2	0.2%
Union (T)	1,009	7.8%
Vestal (T)	836	8.8%
Whitney Point (V)	119	27.1%
Windsor (T)	103	3.8%
Windsor (V)	15	3.4%
Broome County (Total)	7,591	8.0%

The below table shows the number of critical facilities and community lifelines in the 1% SFHA:

Municipality	Critical Facilities in SFHA	Community Lifelines in SFHA
Barker (T)	5	5
Binghamton (C)	63	57



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

Municipality	Critical Facilities in SFHA	Community Lifelines in SFHA
Binghamton (T)	2	2
Chenango (T)	14	13
Colesville (T)	16	15
Conklin (T)	21	19
Deposit (V)	11	10
Dickinson (T)	3	3
Endicott (V)	15	13
Fenton (T)	9	9
Johnson City (V)	13	12
Kirkwood (T)	26	25
Lisle (T)	8	8
Lisle (V)	3	2
Maine (T)	7	7
Nanticoke (T)	2	2
Port Dickinson (V)	3	3
Sanford (T)	7	7
Triangle (T)	3	3
Union (T)	26	22
Vestal (T)	37	35
Whitney Point (V)	15	12
Windsor (T)	6	6
Windsor (V)	7	7
<b>Broome County (Total)</b>	<b>322</b>	<b>297</b>

The table below provides the number of policies (NFIP), number of repetitive loss properties, total number of losses, and total claims paid, as reported by FEMA, as of September 2023.

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Barker (T)	4	0	0	4	\$4,034
Binghamton (C)	255	45	2	255	\$313,164
Binghamton (T)	4	2	0	4	\$12,210
Chenango (T)	0	0	0	0	\$-
Colesville (T)	42	14	0	72	\$1,753,810
Conklin (T)	198	152	34	764	\$35,419,259
Deposit (V)	48	9	0	116	\$2,867,481
Dickinson (T)	0	0	0	0	\$-



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Endicott (V)	53	8	3	85	\$3,926,585
Fenton (T)	22	7	0	47	\$546,088
Johnson City (V)	186	29	1	201	\$14,838,944
Kirkwood (T)	55	38	10	220	\$8,349,045
Lisle (T)	8	0	0	7	\$159,822
Lisle (V)	1	0	0	1	\$7,958
Maine (T)	27	6	0	33	\$1,248,563
Nanticoke (T)	9	1	0	3	\$64,297
Port Dickinson (V)	24	0	0	14	\$363,306
Sanford (T)	21	2	0	17	\$232,683
Triangle (T)	0	0	0	1	\$-
Union (T)	276	90	16	548	\$23,158,435
Vestal (T)	347	71	9	487	\$24,216,989
Whitney Point (V)	4	1	0	3	\$35,416
Windsor (T)	17	8	0	54	\$1,380,155
Windsor (V)	10	2	0	12	\$113,624
<b>Broome County (Total)</b>	<b>1,611</b>	<b>485</b>	<b>75</b>	<b>2,948</b>	<b>\$119,011,868</b>

Source: FEMA 2023

\*SRL county may include properties also identified as RL

### Critical Facilities and Community Lifelines

Critical facilities located in hazard areas (owned/operated by Broome County):

Facility Name	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	SPHA (1% flood hazard area)	0.2% Flood Hazard Area	Wildfire - Intermix	Wildfire - Interface	Earthquake
Broome County EOC	Dickinson (T)	EOC	Safety and Security	N	N	Y	N	N
Broome County Highway-Chenango Bridge	Chenango (T)	Hazardous Materials Facility	Hazardous Materials	N	N	N	Y	N
Broome County Public Safety Facility	Dickinson (T)	Hazardous Materials Facility	Hazardous Materials	N	N	N	N	Y
Broome County Nanticoke Sanitary Landfill	Nanticoke (T)	Hazardous Materials Facility	Hazardous Materials	N	N	N	N	N



Facility Name	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	SFHA (1% flood hazard area)	0.2% Flood Hazard Area	Wildfire - Intermix	Wildfire - Interface	Earthquake
Broome County Cold Storage	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	N	Y	N	Y	Y
Broome County Humane Society	Binghamton (C)	Animal Shelter	Health and Medical	Y	Y	N	Y	Y
Broome County Dog Shelter	Dickinson (T)	Animal Shelter	Health and Medical	N	Y	Y	N	N
Broome County Animal Care Council	Endicott (V)	Animal Shelter	Health and Medical	N	N	N	N	Y
County Office Building	Binghamton (C)	County Building	Safety and Security	N	Y	N	Y	Y
County Library	Binghamton (C)	Library		N	N	N	N	Y
Public Safety & County Jail	Dickinson (T)	County Building	Safety and Security	N	N	Y	N	N
Broome County Library, Decker Room	Binghamton (C)	Polling Location		N	N	N	N	Y

## Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Barker (T)	58	225	932
Binghamton (C)	3,560	32,288	33,110
Binghamton (T)	0	74	1,885
Chenango (T)	143	1,960	5,052
Colesville (T)	103	451	1,882
Conklin (T)	475	1,393	2,369
Deposit (V)	67	81	395
Dickinson (T)	9	454	1,780
Endicott (V)	1,448	8,079	6,456
Fenton (T)	67	646	3,006
Johnson City (V)	307	6,997	8,830
Kirkwood (T)	135	89	2,243



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Lisle (T)	23	395	666
Lisle (V)	26	97	113
Maine (T)	127	684	2,433
Nanticoke (T)	28	0	600
Port Dickinson (V)	72	539	718
Sanford (T)	11	114	463
Triangle (T)	0	53	564
Union (T)	1,000	5,453	6,167
Vestal (T)	1,100	5,531	12,135
Whitney Point (V)	185	669	666
Windsor (T)	99	194	1,835
Windsor (V)	10	286	484
<b>Broome County (total)</b>	<b>9,053</b>	<b>66,752</b>	<b>94,784</b>

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty

### Problem Area Input/Potential Actions

The following were identified by the municipalities where the County may be involved in addressing:

Problem Type:	Name of Location:	Describe the Location:	Describe the problem:	Responsible Organization	Affect Lifeline or Critical Facility?
Flooding – Stormwater Infrastructure Insufficient	Parsons Road	steep elevation drop	storm water run off	Town Highway Dept.	no
Flooding – Stormwater Infrastructure Insufficient		257 Parsons Road	storm water run off	Towns Highway Dept.	no
Flooding – Road Closes or Washes Out	Trim Street, Kirkwood	County-owned roadway; identified as a mitigation measure in the 2019 HMP.	Drainage issues, overwash into roadway, erosion	Broome County	yes
Flooding – Road Closes or Washes Out	Loughlin Road, Kirkwood	County-owned road near Acre Creek; identified mitigation measure in 2019 HMP.	The creek slope beneath the bridge regularly fails after a severe storm, leading to bank failure and reduced creek water quality. Creek overflow leads to flooded roadways and has caused flooding in adjacent homes and businesses.	Broome County	yes



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

Problem Type:	Name of Location:	Describe the Location:	Describe the problem:	Responsible Organization	Affect Lifeline or Critical Facility?
Flooding – Heavy Rain Floods Basement/First Floor	Glenwood Road/Glenwood Road Bridge, Vestal	County-owned Bridge over Choconut Creek; identified mitigation measure in the 2019 HMP.	Subject to flash flooding because of its proximity to Choconut Creek and hydraulic restriction at the bridge. Glenwood and other roads are often closed for several days, which affects the ability of emergency personnel to reach nearby residents.	Broome County	no
Flooding – River/Creek Floods Structure	Richards Ave, Tharp Street, Vestal	Neighborhood located near Choconut Creek; identified mitigation measure in 2019 HMP.	The relocation of Choconut Creek now causes frequent flooding and damage to nearby homes located on Tharp Road and the Richards Ave. Park area.	Town of Vestal	no
Critical facility/lifeline vulnerable to a hazard	County Office Building/Government Plaza	Government Offices for Broome County, NYS, and City of Binghamton; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County, NYS, City of Binghamton	yes
Critical facility/lifeline vulnerable to a hazard	Visions Veterans Memorial Arena	County-owned facility; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County	yes
Critical facility/lifeline vulnerable to a hazard	SUNY Broome Campus	County-owned facilities are located here; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County, SUNY Broome	yes
Flooding – River/Creek Floods Structure	Grippen Park	County-owned park; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County	yes
Flooding – River/Creek Floods Structure	Otsiningo Park	County-owned facility; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County	yes
Flooding – River/Creek Floods Structure	Dorchester Park	USACE flood control structure operated as a recreational area by Broome County; identified mitigation measure in 2019 HMP.	Located in the floodplain.	Broome County, USACE approval	yes
Flooding – Stormwater Infrastructure Insufficient	Second Street, Deposit	County-owned road; identified mitigation measure in 2019 HMP.	Drainage issues; DPW recent completed drainage improvement project between Church and Dean Streets.	Broome County	yes
Flooding – Stormwater Infrastructure Insufficient	Brady Hill Road, Town of Binghamton	County-owned road	Brady Hill Road Culvert undersized and floods adjacent church regularly.	Broome County	no
Flooding – Stormwater Infrastructure Insufficient	Vestal Road, Vestal	County-owned road; identified mitigation measure in 2019 HMP.	Stormwater issues on Old Vestal Road. Insufficient drainage due to development in Vestal	Broome County	yes
Flooding – Heavy Rain Floods Basement/First Floor		Tri Cities Airport	Floods during River Flood Events	Local Government	yes
Critical facility/lifeline vulnerable to a hazard	Jennie F Snapp Middle School	Union Endicott Middle School	Prone to flooding during 500 year flood events	Union Endicott School District	yes



Problem Type:	Name of Location:	Describe the Location:	Describe the problem:	Responsible Organization	Affect Lifeline or Critical Facility?
Critical facility/lifeline vulnerable to a hazard		Village of Endicott WWTP	Is within the 100 year floodplain	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard		Ranney Well supplies the Endicott Water System with water	It's the only well and it doesn't have a backup power supply	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard	Ranney Well Substation	Substation for Municipal Light	Is within the 100 year floodplain	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard	Endicott Water Department	Main building for the Endicott Water Department	Prone to flooding during 500 year flood events	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard	Endicott Municipal Light Department	Main Facility for the Municipal Light Department	Prone to flooding during 500 year flood events	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard	Village of Endicott Street Department	Main Facility for the Street Department, also main hub for refuse and recycling	Prone to flooding during 500 year flood events	Village of Endicott	yes
Critical facility/lifeline vulnerable to a hazard	Johnson City Water Department	Village of Johnson City Water department offices, pumping facility, and Wells 2 & 3.	Facility is protected by a levee that was overtopped during flood events of 2006 & 2011	Army Corp of Engineers - DEC Levee Division	yes
Flooding – Road Closes or Washes Out	Nanticoke Road in between intersection with Tiona Road and Ames Road	major road with several residences	high water covers the road making is impassable either in or out	DEC	no
Flooding – River/Creek Floods Structure	Edson Road near intersection with Pollard Hill Road	low terrain near the banks of Nanticoke Creek	during high rain, creek overflows banks and endangers houses and road	DED	no
Critical facility/lifeline vulnerable to a hazard	Village of Windsor pumphouse	30 Main St Street and water department	Prone to flooding, location provides potable water for the Villages residents	Municipality	yes
Critical facility/lifeline vulnerable to a hazard		Pumphouse	Prone to flooding, it is a critical facility	Local	yes

## Stakeholder Survey Feedback

The information provided below is feedback we received from the stakeholder survey. What is shown below was taken directly from the survey results.

- What support organizations feel they need from the County:



- Infrastructure such as flood walls and flooding mitigation
- Increased communication with outages occur, with situational updates associated with the nature of the outage, anticipated time of restoration, etc.
- Support of educational efforts to inform motoring and bicycling communities of their respective rights and responsibilities.
- clarity on use of our facility in an emergency
- Due to impact of a major flood event, I am not really sure there is anything that can be done to minimize the potential hazard.
- Unsure if we need any support with this, but would like to be able to offer support if needed.
- Mostly information when hazards strike
- We receive great support from Broome County and have strong relationships with emergency services personnel.
- We just need to work collaboratively between departments to ensure the safety and to work towards reducing vulnerabilities together.
- Internet strengthened in Windsor/Harpurville, Improvement infrastructure for NYSEG in Whitney Point and Flood mitigation in Johnson City.
- Projects/programs organizations would like to complete:
  - A flood wall
  - It will take a big effort to develop an appropriate list for the University and I cannot create this on my own. I can begin the process of identifying our needs and would need to know the how & to whom I should submit this information to.
  - Funding to certify village Levies meet the Corp of Engineers flood specifications by an Engineering study
  - None of our critical operations, such as Servers are in a flood prone area
  - considering additional generator or larger generator at MS/HS location
  - We are working with another library system to setup a dynamic backup link between our servers so that, in the case of an emergency, we could each run our software from another location
  - EOC update



## Neighboring Community Survey Feedback

The information provided below is feedback we received from the neighboring community survey. What is shown below was taken directly from the survey results.

- The temporary housing locations across Broome and Tioga Counties could be explored further.

## Public Survey Feedback

The information provided below is feedback we received from the public survey. What is shown below was taken directly from the survey results.

- Identifying vulnerabilities in or outside of the city/town/village.
  - lack of equipment for PD, Fire, and EMS agencies to respond to emergencies in deep snow (I feel like the county should look into something like a snow cat)
  - Many water and sewer systems in the hamlets, villages, city, and towns in Broome County have failed due to defects in these systems. The defects are age related and need to be repaired.
  - Drainage/runoff issues on southwest side and south mountain.
  - Trees subject to collapse in high winds/ice storms
  - Helen St and Shelby St, Both in Johnson City
  - Cherry Street, Johnson City. SLUM HOUSING .ROOF SHINGLES EVERYWHERE .GARBAGE EVERYWHERE. CODE VIOLATIONS GALORE.
  - Hiner Road has not been improved since the storm of 2018. The City is not willing to take action
  - Flooding of Rte 26 along course of East Branch of Nanticoke Creek, from north to south in Broome County.
  - increase possibility of flooding if IDA project occurs lower airport road...
  - Poplar St, brand new apartments build where flood destroyed homes
  - I live at 2263 Pierce Creek Rd, Town of Binghamton. One concern is the storm water that flows down the bank on the other side of the road and under the road onto my property. I have put in a ditch that runs the entire length of my property. However, a number of times each year during heavy rain, the ditch on the other side of the road cannot accommodate all the water and it spills over the road. Not only is it a road hazard, but it eroding my blacktop driveway. Maybe the pipe under the road needs to be larger. The other concern is the significant



number of dead ash trees along roadways. The county has removed some on this road, but there are still more, including one directly across from my home. If it falls, it will likely take out the power lines and block the road.

- Boland Park Area of Johnson City, 400-500 block of Grand Ave.
- New non impervious surfaces should be monitored. Water flows down hill.
- The chance of current contamination from the steel plant and other businesses behind the Susquehanna Valley secondary campus is incredibly high. And the possibility of future disaster related to the rail line behind the school is as well
- flooding by Glendale drive
- Pierce creek road flooding, trees along power lines
- Flooding
- Trout Creek flooding the first ward, Choconut creek flooding.
- Northern Broome areas - towns of Triangle, Nanticoke, Lisle, Barker Horrible cell service - limits communication in a disaster/emergency event Continual loss of power - even in the slightest of storms
- electric companies not cutting down trees that are dangerous
- Schnurbush Park Conklin NY
- Continuing development in what used to be marshland on old Vestal Road (1990s) and further west, an area that buffered the county west of it and into Tioga Co. from flooding. We saw the results of that in 2011 and yet development continues. Concerns that more development on the hillsides of Vestal will also contribute to more water on the Parkway and into the river. I know that areas of Chenango Bridge lose electric service more than any other friends. The infrastructure is bad and has not been addressed. They have had to go to friend's houses several times in the last 2 years for power outages due to lack of heat and communication.
- Riverside Drive in Johnson City needs more flood water countermeasures.
- In the Chenango Forks School District neighborhood between River Rd and Jason Dr - Stormwater drainage pipes and culverts inadequate during high precipitation events. High volume of storm water runoff from hill often exceeds capacity of culverts/drainage pipes( specifically at 1410-1418 River Rd) causing flooding of yards and streets.
- South side of Binghamton has multiple underground springs that create run off to the streets and freeze over in the winter making driving hazards and street block off. Washington St., Mary Street and the side streets Iva St.



- The air quality at NHA North Shore Towers, is extremely effected negatively by mgmt. turning off all ventilation systems!
- Glendale Drive and areas east of Route 26 in West Corners are vulnerable to flooding from Nanticoke Creek. Backup power for the data center in the County Office Building is in the basement, which has been flooded in the past; this could negatively affect all County emergency operations.
- poor vulnerable power grid in Town of Maine and close. Loose power often - at least twice last year in below freezing weather - needed coats in house - no water
- Field St, Binghamton is a concern for those homes who could be victims of a landslide.
- live on Dudley Creek, lower whiting hill road which empties into nearby river.
- 911 311
- Non existent stream maintenance on Glen Castle Creek and Castle Creek causing roadway flooding and property damage. Poor maintenance of roadway drainage systems in the Town of Chenango.
- Flood prone Upper Court St. Side Street between Robinson St and Court St
- My house is fine but I know the corner of Center St and Crescent Dr in Endwell has been known to flood in extreme conditions along with multiple houses in all directions.
- There are homeowners who cannot afford to have hazardous trees removed from their properties that pose a risk to adjoining properties
- Wide spread power outages
- Town of Conklin in general has had disastrous river floods
- Nanticoke Creek along Rte 26 and Endicott.
- Orchard Park Area
- Nanticoke creek in West corners
- NYSEG needs to be better prepared and implement preventative measures. Many areas see constant outages at the slightest storms.
- Harry I Dr., streets homes and businesses off Harry L. Dr. and lower Oakdale Road Johnson City
- flooding along Nanticoke Creek in the town of Maine



- Flood plain along the Susquehanna, especially around the confluence and areas downstream. Dead ash trees throughout the county killed by invasive species
- Cutler pond does not drain well since the army corps "fixed it"
- NYS Rte 26 West Corners to Maine
- Loss of power and internet constantly during storms
- Many of our elderly and economically disadvantaged community members do not have access to heating/cooling centers during extreme temperatures due to lack of transportation
- old vesta rd. flooding
- Numerous power failures in winter or rain / wind storms. Sometimes power goes out in hot days in summer clear days as well. Chenango Road, Castle Creek. NY
- lack of back-up power for electricity, internet, cable TV
- The end of Nassau Street along highway has no streetlights. No one will come and address the problem which has been going on for years
- Pollution caused by flood damage, extreme heat in downtown areas (Johnson City especially)
- Front St area from Clinton to city line gets water in basement when ever heavy rains
- I almost concerned about critical facilities such as the City of Binghamton Water Treatment plant, the Bing-JC Sewage Treatment Plant and Lourdes Hospital. Since all of these are affected by flooding, we should manage stormwater runoff and protect open space throughout the County.
- Binghamton needs to help the veterans and homeless population more, fox the roads, allow more police presence in high crime areas
- Multiple hills in the City of Binghamton-not always a priority for snow removal
- Lower portion of Fuller Rd, Binghamton gets flooded because of small stream running along it. Many roads have large overhanging tree branches that could break into the road during wind or snowstorms( Brotzman Rd, Dorman Rd, Binghamton.
- Potential dangerous trees in Chenango Valley State Park, 9 and 10 Pigeon Hill Rd. Our properties border state park, numerous times trees have fallen on our properties, one time smashing my truck in my driveway, next time one falls possible on our houses, supervisor is aware of problem and refuses to rectify the problem



- public drinking water sewage treatment facility
- Our dated power grid that goes out with mild wind or mild storm. Chenango bridge
- Baltimore street, bottom of Duke st abandoned properties all over the city of Binghamton need to be torn down. They are fire traps, the mayor is working hard yes, but more needs to be done. Turn those lots into community gardens
- Overall in Broome County we are experiencing a lot of trees being cut down. This affects erosion, and contributes to flooding. The roots of trees absorb thousand of gallons of water daily.
- Endicott water supply. Broome county sewage discharge after each rain storm.
- All Electrical and Natural Gas Distribution and transmission systems
- One culvert east of and one culvert west of Route 26 bridge on north side of Susquehanna River just southeast of U-E High School parking lot that are supposed to carry water under Chugnut Trail are clogged. This causes storm water to run over the trail and erode the southern edge of trail. There are probably other culverts that need to be regularly inspected and maintained too.
- rental properties with holes in foundations in flood plains
- Flood walls not being properly maintained or strengthened to protect against known severe flooding risks.
- Just in general with heavy rain events, there are typical places water covers the roads and becomes unsafe to drive through. Most regions along the rivers are rental properties and renters have no idea of the risk and potential disaster
- Crumbling flood walls along Upper Court street, Front St. and properties at the lower end of streets that go down to the river (Laurel, Avon, Stratford, etc.)
- Most of the tri-cities area is vulnerable to flooding and we know this from 2006 and 2011
- Southside Binghamton has a lot of water run off issues. Many on the hill get water in the basements. We also have a deer issue, making Lyme disease an ongoing issue in addition to new forest growth. Plowing is an issue for emergency services to get out. For example, the Town of Binghamton fire chief lives in the City of Binghamton on a non-priority road for plowing. Perhaps having some map of where the critical people for emergencies live could be helpful. Vestal Ave road floods during storms.
- Old vestal rd.-lower front st
- Loughlin Rd creek at Acre Pl County bridge, extreme erosion due to flow of the water during heavy rain.



- We must dredge the river. Dirt is building up increasing the size of islands causing flooding.
- Flood prone area McFall Rd., Apalachin. Flood ins. was not originally required.
- Low lying areas
- run off in Dickinson onto front street and surrounding areas. After any heavy rain, in between regal and Starbucks on the right, water will accumulate in large quantities because it does not drain. It becomes a hazard. ON BCC campus near the Ice rink, there is a TON of runoff that comes from the hill and drains into the parking lot drains. There is only one drain there that services the lot (near the gazebo) and I have seen it overwhelmed with water due to the volume coming down the hill. I think this has potentially caused some of the issues seen in that neighborhood recently with the last major storm and run off challenges
- within the city of Binghamton there is a high percentage of trees that are overgrown onto or around power and utility lines which enhances the risk of downed lines and power outages with severe storms year round not only do property owners esp slumlords but also the utility companies do not routinely trim remove limbs from around these lines
- Dirt roads that wash out not fixed properly for running water during storms. Cass rd. nineveh
- This is job of code enforcement, highway departments, building inspectors, law enforcement ... ridiculously high taxes, do you jobs
- Many streets in Broome County have very crappy drainage and water and ice build up on them causing accidents and cars to be on the wrong side of the road
- Poor pipe infrastructure in Northside Endicott that has issues after storms with losing pressure and being brown for days. Water pooling on highway right after Madison ave intersection under bridge
- clearing storm drains before and during major storms
- Twin Orchard area of Vestal is now new to flooding. Would like to really know why the rivers cannot be dredged to clean them. It should become a priority after 2011 and billions of dollars lost during the flooding in our local area. Some things have changed upstream and now river levels rise much higher and quicker during major storms. We need to look at what can and should be done to protect citizens from the flooding. We have not done anything since the flood to help protect businesses and properties from the really high risk of another disaster.
- During ice storm two years ago there was little coordination of resources to restore power, need more drills and responsibility put on utilities to prepare for large scale outages
- Rt 79 we constantly having power off with no power for day, or one time it was a week! Need to improve area, prone to high winds and wet snow, and improve nyseg response



- town hall
- Out dated utility infrastructure that is and has been paid for monthly for decades. Flood walls and embankments need rebuild. Overall infrastructure is an absolute joke.
- Cleaning out of creeks on Foley Road to prevent flooding
- The creek needs to be dug deeper in Castle Creek at the community park and near the Mirabito. They flood a lot
- Storm runoff from Town of Chenango
- Foley rd., blatchley rd. is now flooding, the rural areas of Kirkwood and Windsor are often neglected. There are places on Trim St that flood as well, these are COUNTY roads.
- Public drinking water & water treatment plant need protecting throughout entire Greater Binghamton area.
- frequent loss of power in Castle Creek, on Knapp Hill Rd in Castle Creek it can become dangerous during winter weather
- Railroad overpasses on Route 369 between Court & Robinson Streets, Glenwood Avenue and Jarvis Street
- Excessive speeding on Alexander Street which continues and Sheriff has not enforced.
- Town of Colesville. Several small creeks that rage any time we get a heavy rain. Debris blocks culverts etc., making the water back up more than it should. DEC does not cooperate with private landowners to lessen this impact.
- Power is constantly going out in the area of Hillcrest when there is a storm. Trees fall down constantly as well.
- All of Franklin Street in Endicott floods. All of the underpass in Endicott flood. The corner of North Duane and Franklin in Endicott is a giant lake when it rains hard. To get from the north side of Endicott to west Endicott during a strong rain you only have 2 options especially in the dark not being able to see the water levels on the street
- Greensfield Park flooding with every heavy rain
- 226 Bevier Street county water course goes under road and entire length of our driveway. Pipe is concrete and old and county refuses to upgrade to mitigate water damage from structure.
- Trees need to be cleared from power line runs. This entire area has a serious issue with this.
- Route 26 and most of Nanticoke creek in the West Corners area.



- Fill sites and developments located on Airport Rd and Commercial Dr in the Town of Maine are causing sediment buildup in the downstream dams. Erosion control is not implemented (or done poorly) with little to no municipal oversight. Airport Inn was allowed to clear 2 acres of land and throw 80 ft of pipe into a stream to create a parking lot made of millings. Additionally, various sites like the concrete plants on Vestal Rd track sediment onto the roadway creating dust which in turn creates air quality issues. Development is good but not at the cost of do-whatever-you-want. But then again, this entire State is headed in that direction.
- flooding on Main St in Windsor, NY
- Vestal Parkway
- Emergency Services need to bolster services in the local communities. This is not specific to any one city/town/village.
- Cynthia Drive in the Town of Binghamton is allowing building in a flood plain, does not enforce SWPPP or town codes. The water and silt run off are being allowed directly into Hawthorn creek then into the Susquehanna River. They are allowing subdivision of land with no plan for environmental impact or infrastructure support
- I like how the town is proactive in tree trimming and removal before storms, I would love this initiative to continue.
- Cell phone service
- Quaker Lake Road Hawleyton Road
- Dead or vulnerable trees lining roadways posing hazards to power lines
- Susquehanna flooding at Conklin Ave and Washington St
- Buildings in Conklin and low level areas of development
- Strong winds and lightning bringing down dead ash trees
- Several areas of Binghamton are in the flood plain
- Overgrowth around power, phone and internet lines. Overgrowth at edge of roadways...tree limbs falling in road.
- Heavy winter storms/other severe weather have knocked out power in many areas of Broome County for many days. An upgrade to put power lines underground might lessen those impacts.
- Unhoused individuals do not have a place to go during freezing weather. There need to be more shelter beds in Broome County as well as more affordable housing, including for the poor and recently incarcerated.



- Parts of Old Vestal Rd (Take-a-Break and west), parts of Harry L/Watson Blvd., parts of downtown Binghamton/North Shore Dr.
- Any on a well without generator for pumps. Industrial parks with petroleum fuels in flood zones. Remove invasive species along Susquehanna and replace with riparian buffer species. Prevent further impermeable pavement at moore park and along parkway. Make structures permeable with native plantings.
- In 2005 and 2006, flood waters were only 2 blocks from my home. In 2011, one block. Clearly, I question what a third flood would do. Especially since structural barriers are no longer there. Those who got slammed in '05 and '06 begged to have something done, but got clobbered in 2011 as their cries were not heard. I was always told that steps would be taken by the US Army Corp of Engineers to secure the area at the end of Grand Avenue and along the river at Boland, but I am not sure anything has been done.
- awareness of emergency evacuation when needed
- preparedness at senior living facilities, hospitals, etc.
- Combined water/sanitary lines, poor stormwater management on Court Street (eastside), narrow creek channel on Chamberlain Creek (eastside), poor stormwater management on railroad underpasses in Binghamton, poor stormwater management on Morgan Road, Park Ave, Brook/Corbett Ave, Vestal Ave (southside)
- Town of Chenango is prone to losing power at their NYSEG substation on route 12, impacting thousands of residents for sometimes 24+ hours.
- overall fragile utility systems from years of neglect and lack of maintenance, mainly NYSEG- widespread huge problem in our area.
- Plan to develop Westover GE site by raising ground level, thus diverting floodwater to already flood-vulnerable areas
- north Sanford rd. at the bridge over oquaga creek
- Flooding risk, loss of power frequently
- The whole city of Binghamton Being right next to two rivers.
- once a property is torn down for being in a flood and not repaired the property needs to remain vacant forever, not until people don't remember when
- Flooding from Susquehanna and also creeks
- North Side Bing fire station/ Bing city hall complex in flood prone areas Floodwalls in Binghamton in disrepair in part Creeks and waterways not flood ready, Court Street bridge at Bigelow, etc. All creeks leading to rivers are narrow, clogged



- Inadequate, failing or antiquated guardrail systems on a number of roads and many times nonexistent in obvious hazard areas. Ex: steep dropoffs near road
- Wooded areas that lack access for fire control
- within the last 5 years upper fairview ave was destroyed by flooding leaving residents no way to access their homes but to use private property that could not manage ambulance/emergency vehicles or fuel trucks. the situation was fixed as quickly as possible but previous damage to the road from years of flooding from the creek contributed to the damage.
- Lourdes hospital the parking lot behind the buildings close to the river. Always floods. More can be done to mitigate this risk. Even planting natural barriers (getting rid of the Japanese knottwood)
- Union Endicott High School, Main Street, Endicott.
- Clubhouse Road onto 434 in Vestal -- the intersection often floods/gets standing water and then the sensors appear to not work at the traffic light and after waiting 3 minutes or so on Clubhouse drivers begin to run the red light.
- Poor drainage on too many main streets including the Vestal Parkway and Main Street in Endicott. If you can't get the storm drains to handle rainwater on the main streets then the pose an issue to emergency vehicles or the average person driving.
- Storm drains on Rexford going to Bayless & Park. Repaired but made them worse! East side of Rexford St collapsing into creek ravine.
- Pierce creek Rd (Town of Binghamton)- water constantly flows over the road during rain events and turns to ice during the winter looks like because there are not good ditches or drainage along the road. There are a lot of dead ash trees that have fallen on powerlines recently with strong winds and will continue as more die.
- Not aware of "structural" vulnerabilities, specifically - but I've certainly lived through enough "water" in this town to advise the traffic lights (timing/losing power) need to be augmented by Emergency Services (even volunteer fireman) when power knocks out street lights. In November 2006, it took me almost 4 hours to "get home" from the flash flood that closed Rt. 88/landslide. The "timers" for the traffic signals were useless as there were no capacity to manage the volume of vehicles that were routed off of Rt. 7/88 to Chenango Street - and EVERYONE had to use that single route due to street-level flash floods. Positioning EMS/V-Fire staff, in a good high-vis raincoat, could have helped the situation immensely as there was no traffic coming off or going onto the highway to merit the use of the traffic light. Getting residents home and off the roads is very important in an emergency/disaster. We need to think through how to quickly move to "one way traffic" (such as used at Dick's Open traffic on concert night) and deployment of "traffic management" resources to facilitate getting folks home and off the road so Public Works and EMS can do their job unimpeded. Thank you.



- I regularly look at realtor sites. Most of the times, when locating a property on the map, flood information is available on the right side of the map. But sometimes it is not. How is it not fraud, to not disclose a property's flood plain status, to a prospective buyer? Especially if that buyer is from out-of-town and not familiar with our flood patterns?
- The foot of Mill St and Conklin Ave seem vulnerable. All of Binghamton's downtown improvements seem very fragile and likely to be erased in the next big flood. It makes me nervous to recommend other people to move here. (I've already gotten one friend to buy a house and move here!) The bottom floors of the SUNY Broome student housing and library, where important student services for disabled students, writing tutoring, and so on are based, flooded in the last major flood and seem likely to flood again.
- Our intersection and other low laying streets flood a lot. Main and Washington. North and Jefferson. North and Madison. Madison and Monroe...too many to list
- Lower Oakdale Road has been flooded in the past. I do not know why Mom's House, Physical Therapy Business and others have built there.
- Questions and concerns regarding hazard mitigation in Broome County.
  - Broome County should hold Emergency Preparedness seminars throughout the year either, in person at local schools or libraries or on Zoom, to train community members so they can become turn-key trainers for smaller groups of people they know personally. I have taught Emergency Preparedness to children and adults as a public school and an independent living skills teacher. I would definitely be willing to teach community members how to teach their friends and family to be prepared for all types of emergencies.
  - A significant amount of abandoned and non-maintained housing can be a hazard to the environment, economy/land value, health, crime, and more.
  - Power goes out in the Binghamton upper front street area way to often. The grid needs upgrading.
  - Ability to adapt and respond to climate events. Investment is needed in green infrastructure.
  - How many times does Route 26 have to flood for serious mitigation to occur?
  - the outer small towns get little attention. The 1970's small stream dams should be revisited for increased rainfall and the change in lands ability (tree removal) to absorb rain due to urban/rural development.
  - Immediate communication.
  - GOVERNMENT SHOULD BE MORE OPEN, INTERACTIVE WITH COMMUNITY PARTNERS, AND ABLE TO SHARE/PRACTICE ANNUALLY.
  - Why don't we recycle household batteries?



- Remove the dead Ash trees as a result of EAB BEFORE they create problems to infrastructure.
- concerned about the amount of vehicle resources given to non-field response Office of Emergency Services personal with little or no consideration to Deputy Fire Coordinator and Fire Investigation staff or ensuring critical response trailers have proper tow vehicles
- what would the elderly do if living alone with no power and no way to get alerts if no phones, computer, etc. Should there be a database of elderly people in this situation who could be checked on in an emergency.
- Snow/Ice removal is a top priority and plow drivers need to be better trained/prepared to do their jobs more efficiently than they currently do. Certain side roads in and around Binghamton and Broome County are on hills and need more attention than level roads.
- I think Broome County has come a long way in being prepared for hazard mitigation
- Flood control is being addressed by finally getting the last of the flood walls in Binghamton repaired. Concerns about electric lines being knocked down, probably due to the ash trees dying and not being removed. It seems that Burr Avenue in Binghamton has been a victim of this a lot in the last 2 years, even though there is a substation on their street, they have had a number of outages.
- Incentivizing installation of whole house battery backup systems. Power outages can pose the greatest widespread threat to life for those dependent on at-home medical care equipment as well as temperature control, well pumps, etc. Battery backups are also safer and require no maintenance as compared to mobile/fixed generators which require maintenance (and thereby neglected and not functional when needed) or can be misused and cause carbon monoxide poisoning to those not properly educated on their use.
- Please do a thorough hazard mitigation investigation at BHA exchange st
- During and after the 2011 flood, it would have been helpful to receive official information about how to handle natural gas powered appliances that had been flooded.
- don't forget - air pollution (smoke) and even nuclear radiation - plus long-term loss of electrical grid due to cyber-attack.
- ALL emergency notifications need to be offered in multiple languages so that all people living in our community are informed! Shocking that is even a question on this survey
- Extreme weather is going to get worse. I'm glad to see you are addressing it. There is a difference in the needs of people that live in rural areas relative to those living more populated areas.
- Just to be kept informed of anything in my area



- Is what is "upstream" ...dams, industry drainage, etc. responsible for the devastating floods in the recent past years.. they were within 5 years of each other
- Would appreciate local Town of Binghamton take our concerns serious regarding Orchard Park area speed issues, local residents, Fed Ex, UPS and other delivery services.
- Better detailed info from NYSEG on power outages.
- FEMA Floodplain maps include areas that have never flooded.
- Please exercise extra concern for our vulnerable populations such as the unhoused, elderly, and low-income families. They may not have access to other resources and depend on the county to assist them in disasters.
- I think it's necessary to consider that there are non-English speaking, and without access to reliable internet. Someone shouldn't have to have social media accounts (including email) to be informed of what is going on in their community.
- I think the funding or approval of any development (public or private) should include an environmental review and require the best mitigation measures available to reduce runoff, increase carbon capture, and maintain open space.
- Fix the roads Give emergency personal money funds
- Electrical outages are becoming more common, even when there seems to be no cause.
- So many of our buildings that house critical infrastructure are old and outdated. The corrections department, the police departments, some of the fire houses, all need critical electronic updates and better working environments. How can you protect us if your ceiling is leaking, your doors and walkways aren't even ADA compliant. I have been in the city building and winced at how horrible the conditions are for the officers inside. Upgrade, update, protect our workers in order to provide better service to the community. Ask for community help, some of us would volunteer our time in order to serve those who serve us.
- Hazardous waste is being trucked through our area - what is the plan for a toxic spill?
- Please consider protecting hilltops from being developed. Vegetation controls run off and should be valued.
- Climate Change is increasing the incidence rate and severity of many of the problems asked about in this survey and is likely to eventually result in food shortages, too as well as supply chain problems. We are still sleep walking toward Climate Catastrophe. Climate Change needs much more urgent action at appropriate scale and officials need to be addressing this and communicating about it!



- We should be doing more about industrial pollution. when we get flooding that goes everywhere. The walkway by the parkway should have some barrier between the people and the cars because of the air pollution. A physical barrier (plants?) could block some of the particulate matter, lead, etc. Hurts people who are exercising. Substandard housing is vulnerable, which means renters are. Landlords don't always fix problems then tenants have to pay money to keep home livable.
- Dredge the rivers in populated areas to keep the rivers below flood wall flood heights.
- Need to develop a community that is aware of disaster risks, especially in regards to floods - where to find flood forecasts (National Weather Service) and what they mean, understanding historical flood potential of certain areas, etc.
- Questionnaire was a little confusing. I filled it out for my personal experience but I wasn't sure if you wanted it filled out for my perception of the whole county.
- Please dredge the river. Looked trucking has offered for free! To keep the stone. A win/win.
- preventative actions are the best way to limit damages compared to many other areas and states this area falls behind and behaviors are reactive rather than proactive maybe after events that have occurred have finally opened some eyes
- Better snow removal from county roads on the weekends.
- Information about pollutants that are new and historical from businesses that are here currently and historical ones
- we need trees away from powerlines. that's where our power outages are coming from.
- How do we prepare and protect.
- This area is a major catastrophic disaster waiting to happen and when it does. It will be just as in the past. Remain the same until the next one. Remember 1946??
- Clean out the creeks, rivers to prevent flooding. I know DEC will bitch but they need to realize that saving 1 fish is not worth trying to save buildings
- Text alerts would be helpful. Not everyone has access to local TV or radio stations 24 hours a day.
- Yes-- I am also concerned with NYC trash/ waste being shipped here.
- This survey is a good starting point. Thanks for asking for community input.



- I am impressed with the governor of NYS & Broome County executive & Binghamton mayor for their combined efforts to inform & protect us.
- The flood plain maps that were shared via links within this survey were dated 1977. Have there been any updates? If so, I think this should be a priority as our weather has significantly changed since 1977 with some significant incidences of flooding.
- Please do the sensible, responsible and right thing by the law and use common sense for our children's and family safety. You can always get more money but not a lost life.
- Rural communities need more support than more metro areas. If we have no power, we have no water, no heat, no shelters, etc. Trying to get by without power for days on end is much more difficult than it is in town.
- You can't control the weather. It's not Broome county's fault some of the local municipalities have lacked in areas such as fixing the flooding issues or that the power goes out a lot. But if you could be more timely with your response or more logical
- Broome County needs to step up and spend money on decent drainage on its hillsides
- Stop focusing on climate agenda. Climate change is a scam that's been around since the 1960's and wasted billions of tax payer dollars. Common sense erosion control and environmental protection is a better route. Hazards have always existed and always will exist so preparedness comes from being aware and not putting yourself in harms way. That means controlling what is constructed/renovated and where to ensure water can go where it needs to and buildings can withstand basic storms.
- Ensure enforcement of existing environmental and safety regulations. Enforcement of town codes. Investigate and eliminate government officials conflicts of interest
- NYSEG needs to upgrade its facilities. We are constantly undergoing power outages.
- Old infrastructure needs replacing. Power grid is prehistoric in certain parts of the county
- Need 100% communication and cooperation between all government and emergency agencies
- I would appreciate great attention being given to a plan for unhoused and economically marginalized populations during environmental emergencies.
- Protect our utility lines. Promote internet competition
- The questions are understandably focused on flooding, but what will be done to mitigate extreme heat? Many of this area's homes lack central air.



- Please focus on reclaiming wetlands clearing streams that feed into the Susquehanna, and co-use floodplains like community/insect gardens, native riparian plantings and parks. Further, cull the deer population that is browsing understory plants that assist with absorbing heavy rains and retaining soil during drought/rain cycles.
- I personally do not need information in a language other than English. however, my community has a growing population of Spanish and Creole speaking residents.
- River flooding is the most likely disaster. Mitigation technology and policies are well-known. Political will and trust are needed.
- Spanish and French for us Canadians
- Thank you for all you do!
- signage like they have in Florida for evacuation route in flood prone areas
- During big winter or other weather events often a conflict on open-vs closed for roads etc. between sheriff and county executive or mayor, authority structure needs better definition
- We need to work with nature, rather than fighting it. Would like to see natural climate mitigation solutions play a more prominent role in our response.
- Environmental pollution caused by overuse of hazardous, often carcinogenic chemicals by lawn service companies threatens my health and my pet's health and local wildlife's health. Regulation and enforcement should be strengthened regarding this issue.
- More can be done
- Regarding question 14; while I prefer communications/information be provided in English, I also know there is a need for information to be provided in other languages.
- We don't need beautification projects/funds. We need infrastructure improvements. Why try to attract people or businesses if the water is bad, roads/bridges are bad and power outages are frequent?
- More flood barriers is not the solution. It just makes the problem worse for others. More wetlands adjacent to rivers and more upstream retention ponds would be more beneficial.
- Applaud work on Susquehanna dike walls. Seems they should be higher yet
- Due to the nature of elected government, there is often "interest/activity" from an administration that does not transcend the election cycle - and important tribal information, documentation, and continuity of progress is stunted or halted altogether. This area is prone to natural



disaster, but there are many other types of "accidents" that can impact the community and it's preparedness/resiliency from an event. It would be good to invest in continuity of planning - across municipalities, schools, and private industry - to help reduce duplication and pool available resources to meet the needs of our community. There is a significant reduction in anxiety when folks "have a plan" or "know there is a plan" (because it is widely publicized and reinforced) - instead of the anger disillusionment that can occur when the same citizens who "don't want government" - assume - that "government" (whomever that is for them) - wasn't already planned and resourced for - an unexpected event. Hazard Mitigation is largely environmental - but it can be more impactful if it is co-deployed with "Emotional/Practical Personal" preparedness.

- Keep an eye on Veolia, the mega-billion \$ company that Rich David and his GOP City Council brought into our lives (completely unnecessarily). Veolia's track record of disasters in Flint, MI and Pittsburgh, PA (and around the world; they own the majority of the Suez Canal) and their response to those disasters is dismaying, to say the least.
- I would really like more communication via email from the county (and the city of Binghamton). I've read a few articles about how post-disaster communities rarely follow up on the measures that need to be taken to prevent the next disaster, and that seems to be true in my experience with places I've lived before that dealt with tornados or wildfires. Sounds like Broome County is working hard to prevent that, which is great. :) I know the pandemic is an unpopular topic but I'd love to see attention given to better ventilation in schools and other public institutions. COVID aside, there's wintertime PM 2.5 pollution from fireplaces, the wildfire issues like we had last summer (which will likely recur), and so on. Anyway, thanks for your hard work on these touchy subjects!
- Social media like fb and Twitter share it to late or even days after the fact. Useless
- Public libraries can be a key partner in helping with communication and aftermath. They can offer warming/cooling, public computing, and Wi-Fi, among others



**Barker (T)**

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Barker (T)	101	51	5

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Barker (T)	4	0	0	4	\$4,034

Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Communications_3	2.2 Miles NE of Whitney Point	Barker (T)	Communications	Communications	N
Pease Hill Road	Pease Hill Road	Barker (T)	Communications	Communications	N
Chenango Forks	No Address	Barker (T)	Fire Station	Safety and Security	N
Whitney Point Ready Mix Concrete Plant	State Route 9	Barker (T)	Hazardous Materials Facility	Hazardous Materials	N
CHARLOTTE KENYON ES	6633 N Y RT 79	Barker (T)	Primary Education Facility	Safety and Security	N
WELL #1		Barker (T)	Potable Well	Water Systems	N
Landfill Pump Station 1		Barker (T)	Wastewater Lift Station	Water Systems	N
Family Child Care	7671 State Route	Barker (T)	Daycare		N



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Town of Baker		Barker (T)	Public Works	Safety and Security	N
Barker Town Hall		Barker (T)	Town Hall	Safety and Security	N
Barker Town Hall	151 Hyde Street	Barker (T)	Polling Location		N
Countryside Christian Chapel	32 Bull Creek Road	Barker (T)	Polling Location		N
Chenango Forks Post Office	6554 Route 79	Barker (T)	Post Office	Safety and Security	N
Bridge_1008250	1.5 MI N JCT RTS 11 + 12	Barker (T)	Highway Bridge	Transportation	N
Bridge_1008310	1.1 MI SE JCT RTS 11 + 26	Barker (T)	Highway Bridge	Transportation	N
Bridge_1009230	ROUTE 12 + TIOUGHIOGA R.	Barker (T)	Highway Bridge	Transportation	Y
Bridge_1018580	JCT RTS 26 + I-81	Barker (T)	Highway Bridge	Transportation	N
Bridge_1030480	JCT RTE 79 + CHENANGO R	Barker (T)	Highway Bridge	Transportation	Y
Bridge_1030490	4.1 MI NW JCT RTS 79 + 12	Barker (T)	Highway Bridge	Transportation	Y
Bridge_1030500	3.3MI SE JCT RTS 79 + 206	Barker (T)	Highway Bridge	Transportation	Y
Bridge_1031230	2.5 MI N OF EXIT 7 I-81	Barker (T)	Highway Bridge	Transportation	N
Bridge_1031241	1.0MI S JCT RTS I-81 + 26	Barker (T)	Highway Bridge	Transportation	N
Bridge_1031242	1.0MI S JCT RTS I-81 + 26	Barker (T)	Highway Bridge	Transportation	N
Bridge_1094061	0.2 MI N OF EXIT 7 I-81	Barker (T)	Highway Bridge	Transportation	N
Bridge_1094062	0.2 MI N OF EXIT 7 I-81	Barker (T)	Highway Bridge	Transportation	N
Bridge_1094070	2.5 MI N OF EXIT 7 I-81	Barker (T)	Highway Bridge	Transportation	N
Bridge_2225310	HAMLET OF ITASKA	Barker (T)	Highway Bridge	Transportation	Y
Bridge_3349110	2 MI NE OF UNION CENTER	Barker (T)	Highway Bridge	Transportation	N
Bridge_3349120	7.0 MI.SE WHITNEY POINT	Barker (T)	Highway Bridge	Transportation	N
Bridge_3349130	1.1 MI SE OF ITASKA	Barker (T)	Highway Bridge	Transportation	N
Bridge_3367830	2.5 MILES FROM RT12	Barker (T)	Highway Bridge	Transportation	N

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Barker (T)	58	225	932

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty

### Problem Area Input/Potential Actions

- Parsons Road - storm water run off

### Public Survey Feedback

- concerned about the amount of vehicle resources given to non-field response Office of Emergency Services personal with little or no consideration to Deputy Fire Coordinator and Fire Investigation staff or ensuring critical response trailers have proper tow vehicles
- Text alerts would be helpful. Not everyone has access to local TV or radio stations 24 hours a day.



## Binghamton (C)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Binghamton (C)	4,771	2,658	57

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Binghamton (C)	255	45	2	255	\$313,164

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Telecommunications Tower	494 Court St	Binghamton (C)	Communications	Communications	Y
City of Binghamton Engine 4	No Address	Binghamton (C)	Fire Station	Safety and Security	Y
BINGHAMTON QUICKWAY #9	1178 VESTAL AVE, BINGHAMTON NY 13903	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
GOODYEAR 1120	72 - 76 HENRY ST, BINGHAMTON NY 13901	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
JACK SHERMAN TOYOTA	393 COURT ST, BINGHAMTON NY 13904	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
JAY'S ONE STOP INC	28 EXCHANGE ST, BINGHAMTON NY 13901	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
K & P STOP N SHOP INC	198 ROBINSON ST, BINGHAMTON NY 13904	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
MIRABITO #99	409 COURT ST, BINGHAMTON NY 13904	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
MR TIRE 1319	335 COURT ST, BINGHAMTON NY 13904	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
MR TIRE 1350	420 COURT ST, BINGHAMTON NY 13904	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
MURRAY'S AUTO SERVICE INC	6 SOUTH WASHINGTON ST, BINGHAMTON NY 13903	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
NOYES ISLAND GARAGE - NYSEG	1 - 15 ELDRIDGE ST, BINGHAMTON NY 13901	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
ONE STOP GROCERIES INC	283 - 285 FRONT ST, BINGHAMTON NY 13905	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
U SAVE TOWING	339 FRONT ST, BINGHAMTON NY 13905	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
Binghamton, NY POP	17 Montgomery Street	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
EAST MS	167 E FREDERICK ST	Binghamton (C)	Secondary Education Facility	Safety and Security	Y
MACARTHUR ES	1123 VESTAL AVE	Binghamton (C)	Primary Education Facility	Safety and Security	Y
HazMat Producer_383	24 S Washington St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_384	21 S Washington St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_385	23 S Washington St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_386	20 S Washington St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_387	22 S Washington St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_388	300 Court St, Binghamton, NY 13901, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_389	295 Court St, Binghamton, NY 13904, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
HazMat Producer_390	336 Court St, Binghamton, NY 13904, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Almy Brothers Site	8 Jackson St, Binghamton, NY 13903, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
Former Wehle Electric Site	24 Water St, Binghamton, NY 13901, USA	Binghamton (C)	Hazardous Materials Facility	Hazardous Materials	Y
SUSQUEHANNA RIVER INTAKE		Binghamton (C)	Potable Well	Water Systems	Y
Front Street Pump Station		Binghamton (C)	Wastewater Lift Station	Water Systems	Y
Penn Ave Pump Station		Binghamton (C)	Wastewater Lift Station	Water Systems	Y
Broome County Humane Society	167 Conklin Ave, Binghamt	Binghamton (C)	Animal Shelter	Health and Medical	Y
Family Child Care	29 Louisa Street	Binghamton (C)	Daycare		Y
Child Care Center	61 Susquehanna Street	Binghamton (C)	Daycare		Y
Child Care Center	1123 Vestal Ave	Binghamton (C)	Daycare		Y
Catholic Charities	290 Front Street	Binghamton (C)	Polling Location		Y
American Legion Post 1645	177 Robinson Street	Binghamton (C)	Polling Location		Y
Community Center	45 Exchange Street	Binghamton (C)	Polling Location		Y
East MS	167 E FREDERICK ST	Binghamton (C)	Shelter	Food, Hydration, Shelter	Y
MacArthur School	1123 VESTAL AVE	Binghamton (C)	Shelter	Food, Hydration, Shelter	Y
Southside Pet Hospital	25 Webster Street, Bingha	Binghamton (C)	Veterinarian	Health and Medical	Y
Bridge_1003620	JCT RTE 7 + SUSQUEHANNA R	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_1013010	0.4 MI SW JCT RTS 434+363	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_1013021		Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_1013022		Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_1013039	0.2 MI E JCT RTS 363+434	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_1013040	0.4 MI E JCT RTS 363+434	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_2003610	1.0 MI W OF E BING CTY LI	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_2226120	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_2226130	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_2226140	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_2226160	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_2226260	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_3349300	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_3360340	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7003650	0.1 MI N JCT RTS 7 + 11	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7008151	1.9 MI W OF E BING CTY LI	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7008152	1.9 MI W OF E BING CTY LI	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7257491	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7257492	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7257493	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_7257510	CITY OF BINGHAMTON	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_101307C	JCT RTS I-81 + 7	Binghamton (C)	Highway Bridge	Transportation	Y
Bridge_101307D	JCT RTS I-81 + 7	Binghamton (C)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Binghamton (C)	3,560	32,288	33,110

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Drainage/runoff issues on southwest side and south mountain.



- New non impervious surfaces should be monitored. Water flows down hill.
- flooding
- Continuing development in what used to be marshland on old Vestal Road (1990s) and further west, an area that buffered the county west of it and into Tioga Co. from flooding. We saw the results of that in 2011 and yet development continues. Concerns that more development on the hillsides of Vestal will also contribute to more water on the Parkway and into the river. I know that areas of Chenango Bridge lose electric service more than any other friends. The infrastructure is bad and has not been addressed. They have had to go to friend's houses several times in the last 2 years for power outages due to lack of heat and communication.
- South side of Binghamton has multiple underground springs that create run off to the streets and freeze over in the winter making driving hazards and street block off. Washington St., Mary Street and the side streets Iva St.
- The air quality at NHA North Shore Towers, is extremely effected negatively by mgmt. turning off all ventilation systems!
- Field St, Binghamton is a concern for those homes who could be victims of a landslide.
- 911 311
- Flood prone Upper Court St. Side Street between Robinson St and Court St
- Not aware of specific vulnerabilities
- There are homeowners who cannot afford to have hazardous trees removed from their properties that pose a risk to adjoining properties
- Flood plain along the Susquehanna, especially around the confluence and areas downstream. Dead ash trees throughout the county killed by invasive species
- Pollution caused by flood damage, extreme heat in downtown areas (Johnson City especially)
- Most concerned about critical facilities such as the City of Binghamton Water Treatment plant, the Bing-JC Sewage Treatment Plant and Lourdes Hospital. Since all of these are affected by flooding, we should manage stormwater runoff and protect open space throughout the County.
- Binghamton needs to help the veterans and homeless population more, fox the roads, allow more police presence in high crime areas
- Multiple hills in the City of Binghamton-not always a priority for snow removal



- Baltimore street, bottom of Duke st abandoned properties all over the city of Binghamton need to be torn down. They are fire traps, the mayor is working hard yes, but more needs to be done. Turn those lots into community gardens
- rental properties with holes in foundations in flood plains
- Flood walls not being properly maintained or strengthened to protect against known severe flooding risks.
- Crumbling flood walls along Upper Court street, Front St. and properties at the lower end of streets that go down to the river (Laurel, Avon, Stratford, etc.)
- Southside Binghamton has a lot of water run off issues. Many on the hill get water in the basements. We also have a deer issue, making Lyme disease an ongoing issue in addition to new forest growth. Plowing is an issue for emergency services to get out. For example, the Town of Binghamton fire chief lives in the City of Binghamton on a non-priority road for plowing. Perhaps having some map of where the critical people for emergencies live could be helpful. Vestal Ave road floods during storms.
- within the city of Binghamton there is a high percentage of trees that are overgrown onto or around power and utility lines which enhances the risk of downed lines and power outages with severe storms year round not only do property owners esp slumlords but also the utility companies do not routinely trim remove limbs from around these lines
- Many streets in Broome County have very crappy drainage and water and ice build up on them causing accidents and cars to be on the wrong side of the road
- During ice storm two years ago there was little coordination of resources to restore power, need more drills and responsibility put on utilities to prepare for large scale outages
- Public drinking water & water treatment plant need protecting throughout entire Greater Binghamton area.
- Railroad overpasses on Route 369 between Court & Robinson Streets, Glenwood Avenue and Jarvis Street
- Trees need to be cleared from power line runs. This entire area has a serious issue with this.
- Parts of Old Vestal Rd (Take-a-Break and west), parts of Harry L/Watson Blvd., parts of downtown Binghamton/North Shore Dr.
- preparedness at senior living facilities, hospitals, etc.
- Combined water/sanitary lines, poor stormwater management on Court Street (eastside), narrow creek channel on Chamberlain Creek (eastside), poor stormwater management on railroad underpasses in Binghamton, poor stormwater management on Morgan Road, Park Ave, Brook/Corbett Ave, Vestal Ave (southside)



- The whole city of Binghamton Being right next to two rivers.
- North Side Bing fire station/ Bing city hall complex in flood prone areas Floodwalls in Binghamton in disrepair in part Creeks and waterways not flood ready, Court Street bridge at Bigelow, etc. All creeks leading to rivers are narrow, clogged
- Wooded areas that lack access for fire control
- with in the last 5 years upper fairview ave was destroyed by flooding leaving residents no way to access their homes but to use private property that could not manage ambulance/emergency vehicles or fuel trucks. the situation was fixed as quickly as possible but previous damage to the road from years of flooding from the creek contributed to the damage.
- Lourdes hospital the parking lot behind the buildings close to the river. Always floods. More can be done to mitigate this risk. Even planting natural barriers (getting rid of the Japanese knottwood)
- Storm drains on Rexford going to Bayless & Park. Repaired but made them worse! East side of Rexford St collapsing into creek ravine.
- I regularly look at realtor sites. Most of the times, when locating a property on the map, flood information is available on the right side of the map. But sometimes it is not. How is it not fraud, to not disclose a property's flood plain status, to a prospective buyer? Especially if that buyer is from out-of-town and not familiar with our flood patterns?
- The foot of Mill St and Conklin Ave seem vulnerable. All of Binghamton's downtown improvements seem very fragile and likely to be erased in the next big flood. It makes me nervous to recommend other people to move here. (I've already gotten one friend to buy a house and move here!) The bottom floors of the SUNY Broome student housing and library, where important student services for disabled students, writing tutoring, and so on are based, flooded in the last major flood and seem likely to flood again.
- Questions or concerns regarding hazard mitigation in Broome County.
  - A significant amount of abandoned and non-maintained housing can be a hazard to the environment, economy/land value, health, crime, and more.
  - Ability to adapt and respond to climate events. Investment is needed in green infrastructure.
  - Immediate communication
  - Remove the dead Ash trees as a result of EAB BEFORE they create problems to infrastructure.



- Snow/Ice removal is a top priority and plow drivers need to be better trained/prepared to do their jobs more efficiently than they currently do. Certain side roads in and around Binghamton and Broome County are on hills and need more attention than level roads.
- I think Broome County has come a long way in being prepared for hazard mitigation
- Flood control is being addressed by finally getting the last of the flood walls in Binghamton repaired. Concerns about electric lines being knocked down, probably due to the ash trees dying and not being removed. It seems that Burr Avenue in Binghamton has been a victim of this a lot in the last 2 years, even though there is a substation on their street, they have had a number of outages.
- Please do a thorough hazard mitigation investigation at BHA exchange st, Binghamton management not ripping out asbestos, roaches in our food, and no ventilation we are disabled seniors
- I think it's necessary to consider that there are non-English speaking, and without access to reliable internet. Someone shouldn't have to have social media accounts (including email) to be informed of what is going on in their community.
- I think the funding or approval of any development (public or private) should include an environmental review and require the best mitigation measures available to reduce runoff, increase carbon capture, and maintain open space.
- Fix the roads Give emergency personal money funds
- So many of our buildings that house critical infrastructure are old and outdated. The corrections department, the police departments, some of the fire houses, all need critical electronic updates and better working environments. How can you protect us if your ceiling is leaking, your doors and walkways aren't even ADA compliant. I have been in the city building and winced at how horrible the conditions are for the officers inside. Upgrade, update, protect our workers in order to provide better service to the community. Ask for community help, some of us would volunteer our time in order to serve those who serve us.
- We should be doing more about industrial pollution. when we get flooding that goes everywhere. The walkway by the parkway should have some barrier between the people and the cars because of the air pollution. A physical barrier (plants?) could block some of the particulate matter, lead, etc. Hurts people who are exercising. Substandard housing is vulnerable, which means renters are. Landlords don't always fix problems then tenants have to pay money to keep home livable.
- Dredge the rivers in populated areas to keep the rivers below flood wall flood heights.
- Questionnaire was a little confusing. I filled it out for my personal experience but I wasn't sure if you wanted it filled out for my perception of the whole county.



- preventative actions are the best way to limit damages compared to many other areas and states this area falls behind and behaviors are reactive rather than proactive maybe after events that have occurred have finally opened some eyes
- we need trees away from powerlines. that's where our power outages are coming from.
- This survey is a good starting point. Thanks for asking for community input.
- I am impressed with the governor of NYS & Broome County executive & Binghamton mayor for their combined efforts to inform & protect us.
- The flood plain maps that were shared via links within this survey were dated 1977. Have there been any updates? If so, I think this should be a priority as our weather has significantly changed since 1977 with some significant incidences of flooding.
- The questions are understandably focused on flooding, but what will be done to mitigate extreme heat? Many of this area's homes lack central air.
- During big winter or other weather events often a conflict on open-vs closed for roads etc. between sheriff and county executive or mayor, authority structure needs better definition
- We need to work with nature, rather than fighting it. Would like to see natural climate mitigation solutions play a more prominent role in our response.
- More can be done
- More flood barriers is not the solution. It just makes the problem worse for others. More wetlands adjacent to rivers and more upstream retention ponds would be more beneficial.
- Applaud work on Susquehanna dike walls. Seems they should be higher yet
- Keep an eye on Veolia, the mega-billion \$ company that Rich David and his GOP City Council brought into our lives (completely unnecessarily). Veolia's track record of disasters in Flint, MI and Pittsburgh, PA (and around the world; they own the majority of the Suez Canal) and their response to those disasters is dismaying, to say the least.
- I would really like more communication via email from the county (and the city of Binghamton). I've read a few articles about how post-disaster communities rarely follow up on the measures that need to be taken to prevent the next disaster, and that seems to be true in my experience with places I've lived before that dealt with tornados or wildfires. Sounds like Broome County is working hard to prevent that, which is great. :) I know the pandemic is an unpopular topic but I'd love to see attention given to better ventilation in schools and other



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

public institutions. COVID aside, there's wintertime PM 2.5 pollution from fireplaces, the wildfire issues like we had last summer (which will likely recur), and so on. Anyway, thanks for your hard work on these touchy subjects!



## Binghamton (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Binghamton (T)	0	1	2

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Binghamton (T)	4	2	0	4	\$12,210

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_3349090	1 MI S OF BINGHAMTON	Binghamton (T)	Highway Bridge	Transportation	Y
Bridge_3370010		Binghamton (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Binghamton (T)	0	74	1,885



*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

## Problem Area Input/Potential Actions

no public input as of 1/24/24

## Public Survey Feedback

- **Identify vulnerable areas in your community.**

- I live at 2263 Pierce Creek Rd, Town of Binghamton. One concern is the storm water that flows down the bank on the other side of the road and under the road onto my property. I have put in a ditch that runs the entire length of my property. However, a number of times each year during heavy rain, the ditch on the other side of the road cannot accommodate all the water and it spills over the road. Not only is it a road hazard, but it eroding my blacktop driveway. Maybe the pipe under the road needs to be larger. The other concern is the significant number of dead ash trees along roadways. The county has removed some on this road, but there are still more, including one directly across from my home. If it falls, it will likely take out the power lines and block the road.
- The chance of current contamination from the steel plant and other businesses behind the Susquehanna Valley secondary campus is incredibly high. And the possibility of future disaster related to the rail line behind the school is as well
- Pierce creek road flooding, trees along power lines
- Wide spread power outages
- Orchard Park Area
- Loss of power and internet constantly during storms
- Loughlin Rd creek at Acre PI County bridge, extreme erosion due to flow of the water during heavy rain.
- Low lying areas
- Vestal Parkway
- Emergency Services need to bolster services in the local communities. This is not specific to any one city/town/village.



- Cynthia Drive in the Town of Binghamton is allowing building in a flood plain, does not enforce SWPPP or town codes. The water and silt run off are being allowed directly into Hawthorn creek then into the Susquehanna River. They are allowing subdivision of land with no plan for environmental impact or infrastructure support
- I like how the town is proactive in tree trimming and removal before storms, I would love this initiative to continue.
- Cell phone service
- Quaker Lake Road Hawleyton Road
- Dead or vulnerable trees lining roadways posing hazards to power lines
- Flooding
- Susquehanna flooding at Conklin Ave and Washington St
- Buildings in Conklin and low level areas of development
- Strong winds and lightning bringing down dead ash trees
- Several areas of Binghamton are in the flood plain
- Overgrowth around power, phone and internet lines. Overgrowth at edge of roadways...tree limbs falling in road.
- Heavy winter storms/other severe weather have knocked out power in many areas of Broome County for many days. An upgrade to put power lines underground might lessen those impacts.
- Unhoused individuals do not have a place to go during freezing weather. There need to be more shelter beds in Broome County as well as more affordable housing, including for the poor and recently incarcerated.
- Pierce creek Rd (Town of Binghamton)- water constantly flows over the road during rain events and turns to ice during the winter looks like because there are not good ditches or drainage along the road. There are a lot of dead ash trees that have fallen on powerlines recently with strong winds and will continue as more die.
- **Questions or concerns regarding hazard mitigation in Broome County.**
  - GOVERNMENT SHOULD BE MORE OPEN, INTERACTIVE WITH COMMUNITY PARTNERS, AND ABLE TO SHARE/PRACTICE ANNUALLY.
  - Why don't we recycle household batteries?



- Glad to hear you are working on this.
- Would appreciate local Town of Binghamton take our concerns serious regarding Orchard Park area speed issues, local residents, Fed Ex, UPS and other delivery services.
- Ensure enforcement of existing environmental and safety regulations. Enforcement of town codes. Investigate and eliminate government officials conflicts of interest
- NYSEG needs to upgrade its facilities. We are constantly undergoing power outages.
- Old infrastructure needs replacing. Power grid is prehistoric in certain parts of the county
- Need 100% communication and cooperation between all government and emergency agencies
- I would appreciate great attention being given to a plan for unhoused and economically marginalized populations during environmental emergencies.
- Protect our utility lines. Promote internet competition



## Chenango (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Chenango (T)	274	150	13

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Chenango (T)	0	0	0	0	\$-

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
MONRO MUFFLER #31	1268 FRONT ST, BINGHAMTON NY 13905	Chenango (T)	Hazardous Materials Facility	Hazardous Materials	Y
MR TIRE #1321	1235 FRONT ST, BINGHAMTON NY 13901	Chenango (T)	Hazardous Materials Facility	Hazardous Materials	Y
Northgate WWTP	No Address	Chenango (T)	Wastewater Treatment Plant	Water Systems	Y
NORTHGATE WELL		Chenango (T)	Potable Well	Water Systems	Y
PENNVIEW WELL		Chenango (T)	Potable Well	Water Systems	Y
ROUTE 12A WELL		Chenango (T)	Potable Well	Water Systems	Y
Creature Comforts	1250 Northgate Plaza, Bin	Chenango (T)	Pet Store		Y
Chenango Forks High School		Chenango (T)	Shelter	Food, Hydration, Shelter	Y
Chenango Animal Hospital	92 Chenango Bridge Road,	Chenango (T)	Veterinarian	Health and Medical	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1008220	JCT RTS 11 + 12	Chenango (T)	Highway Bridge	Transportation	Y
Bridge_1008270	.4MI S INT7I-81 ON RTE 11	Chenango (T)	Highway Bridge	Transportation	Y
Bridge_1009210	2.0 MI NE JCT RT 12 + 12A	Chenango (T)	Highway Bridge	Transportation	Y
Bridge_1009830	JCT.RTE 12A & CHENANGO R.	Chenango (T)	Highway Bridge	Transportation	Y
Bridge_2257590	1.5 MI W OF CASTLE CREEK	Chenango (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Chenango (T)	143	1,960	5,052

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - electric companies not cutting down trees that are dangerous
  - In the Chenango Forks School District neighborhood between River Rd and Jason Dr - Stormwater drainage pipes and culverts inadequate during high precipitation events. High volume of storm water runoff from hill often exceeds capacity of culverts/drainage pipes( specifically at 1410-1418 River Rd) causing flooding of yards and streets.
  - Non existent stream maintenance on Glen Castle Creek and Castle Creek causing roadway flooding and property damage. Poor maintenance of roadway drainage systems in the Town of Chenango.



- Numerous power failures in winter or rain / wind storms. Sometimes power goes out in hot days in summer clear days as well. Chenango Road, Castle Creek. NY
- Lower portion of Fuller Rd, Binghamton gets flooded because of small stream running along it. Many roads have large overhanging tree branches that could break into the road during wind or snow storms( Brotzman Rd, Dorman Rd, Binghamton).
- Our dated power grid that goes out with mild wind or mild storm. Chenango bridge
- Just in general with heavy rain events, there are typical places water covers the roads and becomes unsafe to drive through. Most regions along the rivers are rental properties and renters have no idea of the risk and potential disaster
- Flooding
- Town of Chenango is prone to losing power at their NYSEG substation on route 12, impacting thousands of residents for sometimes 24+ hours.
- overall fragile utility systems from years of neglect and lack of maintenance, mainly NYSEG- widespread huge problem in our area.
- Not aware of "structural" vulnerabilities, specifically - but I've certainly lived through enough "water" in this town to advise the traffic lights (timing/losing power) need to be augmented by Emergency Services (even volunteer fireman) when power knocks out street lights. In November 2006, it took me almost 4 hours to "get home" from the flash flood that closed Rt. 88/landslide. The "timers" for the traffic signals were useless as there were no capacity to manage the volume of vehicles that were routed off of Rt. 7/88 to Chenango Street - and EVERYONE had to use that single route due to street-level flash floods. Positioning EMS/V-Fire staff, in a good high-vis raincoat, could have helped the situation immensely as there was no traffic coming off or going onto the highway to merit the use of the traffic light. Getting residents home and off the roads is very important in an emergency/disaster. We need to think through how to quickly move to "one way traffic" (such as used at Dick's Open traffic on concert night) and deployment of "traffic management" resources to facilitate getting folks home and off the road so Public Works and EMS can do their job unimpeded. Thank you.
- **Questions or concerns regarding hazard mitigation in Broome County.**
  - Power goes out in the Binghamton upper front street area way to often. The grid needs upgrading.
  - what would the elderly do if living alone with no power and no way to get alerts if no phones, computer, etc. Should there be a database of elderly people in this situation who could be checked on in an emergency.
  - Incentivizing installation of whole house battery backup systems. Power outages can pose the greatest widespread threat to life for those dependent on at-home medical care equipment as well as temperature control, well pumps, etc. Battery backups are also safer and require



no maintenance as compared to mobile/fixed generators which require maintenance (and thereby neglected and not functional when needed) or can be misused and cause carbon monoxide poisoning to those not properly educated on their use.

- Extreme weather is going to get worse. I'm glad to see you are addressing it. There is a difference in the needs of people that live in rural areas relative to those living more populated areas.
- Electrical outages are becoming more common, even when there seems to be no cause.
- Please consider protecting hilltops from being developed. Vegetation controls run off and should be valued.
- Need to develop a community that is aware of disaster risks, especially in regards to floods - where to find flood forecasts (National Weather Service) and what they mean, understanding historical flood potential of certain areas, etc.
- When will something start to help people with flooding
- Due to the nature of elected government, there is often "interest/activity" from an administration that does not transcend the election cycle - and important tribal information, documentation, and continuity of progress is stunted or halted altogether. This area is prone to natural disaster, but there are many other types of "accidents" that can impact the community and it's preparedness/resiliency from an event. It would be good to invest in continuity of planning - across municipalities, schools, and private industry - to help reduce duplication and pool available resources to meet the needs of our community. There is a significant reduction in anxiety when folks "have a plan" or "know there is a plan" (because it is widely publicized and reinforced) - instead of the anger disillusionment that can occur when the same citizens who "don't want government" - assume - that "government" (whomever that is for them) - wasn't already planned and resourced for - an unexpected event. Hazard Mitigation is largely environmental - but it can be more impactful if it is co-deployed with "Emotional/Practical Personal" preparedness.



## Colesville (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Colesville (T)	196	108	15

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Colesville (T)	42	14	0	72	\$1,753,810

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
WELL #1		Colesville (T)	Potable Well	Water Systems	Y
Nineveh Public Library		Colesville (T)	Library		Y
Nineveh Post Office	3035 Route 7	Colesville (T)	Post Office	Safety and Security	Y
Nineveh Presbyterian Church		Colesville (T)	Shelter	Food, Hydration, Shelter	Y
Nineveh Presbyterian Church		Colesville (T)	Shelter	Food, Hydration, Shelter	Y
Bridge_1003750	1.3 MI W JCT RTS 7 + 79	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_1003780	1.0 MI NE JCT RTS 7 + 79	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_1094001	JCT RTE I88+SUSQUEHANNA R	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_1094002	JCT RTE I88+SUSQUEHANNA R	Colesville (T)	Highway Bridge	Transportation	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1095350	CONNECTORS - RTS I88&7	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_2225370	MAIN STREET	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_3349170	0.8MI E JCT RTS 7 & 235	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_3349190	3.0 MI NE OF OUAQUAGA	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_3367870	3 MI SOUTH OF NINEVEH	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_7030450	0.1 MI N JCT RTS 79 + 7	Colesville (T)	Highway Bridge	Transportation	Y
Bridge_3370610		Colesville (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Colesville (T)	103	451	1,882

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - Town of Colesville. Several small creeks that rage any time we get a heavy rain. Debris blocks culverts etc., making the water back up more than it should. DEC does not cooperate with private landowners to lessen this impact.
- **Questions or concerns regarding hazard mitigation in Broome County.**
  - Rural communities need more support than more metro areas. If we have no power, we have no water, no heat, no shelters, etc. Trying to get by without power for days on end is much more difficult than it is in town.



## Conklin (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Conklin (T)	870	500	19

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Conklin (T)	198	152	34	764	\$35,419,259

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
BURKE PEST CONTROL	585 CONKLIN RD, BINGHAMTON NY 13903	Conklin (T)	Hazardous Materials Facility	Hazardous Materials	Y
RUNWAY #684	684 CONKLIN RD, BINGHAMTON NY 13903	Conklin (T)	Hazardous Materials Facility	Hazardous Materials	Y
RYDER TRUCK RENTAL INC	685 CONKLIN RD, BINGHAMTON NY 13903	Conklin (T)	Hazardous Materials Facility	Hazardous Materials	Y
THE SHOP AUTO REPAIR & TIRE CENTER LLC	589A CONKLIN RD, BINGHAMTON NY 13903	Conklin (T)	Hazardous Materials Facility	Hazardous Materials	Y
Ryder Transportation Services #0525A	685 Conklin Road	Conklin (T)	Hazardous Materials Facility	Hazardous Materials	Y
CREEK BRIAR PATCH WELL (#2)		Conklin (T)	Potable Well	Water Systems	Y
CREEK ROAD WELL (#3)		Conklin (T)	Potable Well	Water Systems	Y
WELL #5		Conklin (T)	Potable Well	Water Systems	Y
WELL #6		Conklin (T)	Potable Well	Water Systems	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Conklin Pump Station 1		Conklin (T)	Wastewater Lift Station	Water Systems	Y
Conklin Pump Station 2		Conklin (T)	Wastewater Lift Station	Water Systems	Y
Miller Street Pump Station		Conklin (T)	Wastewater Lift Station	Water Systems	Y
Family Child Care	901 Conklin Road	Conklin (T)	Daycare		Y
Conklin Community Center	942 Conklin Road	Conklin (T)	Polling Location		Y
Bridge_1054390	0.1 MI SE JCT RTS 7 + 7A	Conklin (T)	Highway Bridge	Transportation	Y
Bridge_2225490	1.1 MI NW JCT RTS 7 + 7A	Conklin (T)	Highway Bridge	Transportation	Y
Bridge_2257600	1.0 MI NW CORBETTSVILLE	Conklin (T)	Highway Bridge	Transportation	Y
Bridge_2257610	1.0 MI N OF CORBETTSVILLE	Conklin (T)	Highway Bridge	Transportation	Y
Bridge_3349260	HAMLET OF CONKLIN	Conklin (T)	Highway Bridge	Transportation	Y
Bridge_3349280	3 MI W OF CONKLIN	Conklin (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Conklin (T)	475	1,393	2,369

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - Schnurbush Park Conklin NY
  - Town of Conklin in general has had disastrous river floods



- town hall
  - awareness of emergency evacuation when needed
  - Pierce creek Rd (Town of Binghamton)- water constantly flows over the road during rain events and turns to ice during the winter looks like because there are not good ditches or drainage along the road. There are a lot of dead ash trees that have fallen on powerlines recently with strong winds and will continue as more die.
- **Questions or concerns regarding hazard mitigation in Broome County.**
    - Is what is "upstream" ...dams, industry drainage, etc. responsible for the devastating floods in the recent past years.. they were within 5 years of each other
    - Better snow removal from county roads on the weekends.



## Deposit (V)

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Deposit (V)	115	96	10

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Deposit (V)	48	9	0	116	\$2,867,481

## Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Village of Deposit WWTP	No Address	Deposit (V)	Wastewater Treatment Plant	Water Systems	Y
WELL #1		Deposit (V)	Potable Well	Water Systems	Y
WELL #2		Deposit (V)	Potable Well	Water Systems	Y
WELL #4		Deposit (V)	Potable Well	Water Systems	Y
WELL #5		Deposit (V)	Potable Well	Water Systems	Y
Town of Sanford		Deposit (V)	Public Works	Safety and Security	Y
Deposit Free Library		Deposit (V)	Library		Y
Deposit Village Hall		Deposit (V)	Town Hall	Safety and Security	Y
Sanford Town Hall		Deposit (V)	Town Hall	Safety and Security	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Deposit Post Office	8 Dean St	Deposit (V)	Post Office	Safety and Security	Y
Bridge_3349610	VILLAGE OF DEPOSIT	Deposit (V)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Deposit (V)	67	81	395

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

no public input as of 1/24/24



## Dickinson (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Dickinson (T)	20	9	3

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Dickinson (T)	0	0	0	0	\$-

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Sunrise Terrace Pump Station		Dickinson (T)	Wastewater Lift Station	Water Systems	Y
Bridge_1008190	.6 MI N INT5 I-81 ON RT11	Dickinson (T)	Highway Bridge	Transportation	Y
Bridge_1031190	1.5 S OF N BING CITY LI	Dickinson (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Dickinson (T)	9	454	1,780



*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

**Problem Area Input/Potential Actions**

no public input as of 1/24/24

**Public Survey Feedback**

no public input as of 1/24/24



## Endicott (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Endicott (V)	2,159	1,133	13

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Endicott (V)	53	8	3	85	\$3,926,585

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Tri-Cities Airport	351 Industrial Park Blvd, Endicott, NY 13760	Endicott (V)	Airport	Transportation	Y
George Industries	1 s paige ave	Endicott (V)	Hazardous Materials Facility	Hazardous Materials	Y
JENNIE F. SNAPP MS	101 LODER AVE	Endicott (V)	Secondary Education Facility	Safety and Security	Y
Village of Endicott WWTP	No Address	Endicott (V)	Wastewater Treatment Plant	Water Systems	Y
WELL #28		Endicott (V)	Potable Well	Water Systems	Y
WELL #32, RANNEY		Endicott (V)	Potable Well	Water Systems	Y
WELL #5		Endicott (V)	Potable Well	Water Systems	Y
Family Child Care	110 Mechanic Ave	Endicott (V)	Daycare		Y
Union Volunteer ES		Endicott (V)	EMS	Health and Medical	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Central United Methodist Church	17 Nanticoke Avenue	Endicott (V)	Polling Location		Y
Central United Methodist Church		Endicott (V)	Shelter	Food, Hydration, Shelter	Y
Holy Nativity Lutheran Church		Endicott (V)	Shelter	Food, Hydration, Shelter	Y
Jennie F. Snapp MS	101 LODER AVE	Endicott (V)	Shelter	Food, Hydration, Shelter	Y
Bridge_2267230	6.5 MI W OF EX 70 RT 17	Endicott (V)	Highway Bridge	Transportation	Y
Bridge_7018440	0.2 MI N JCT RTS 26 + 17C	Endicott (V)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Endicott (V)	1,448	8,079	6,456

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

- Jennie F Snapp Middle School - Prone to flooding during 500 year flood events
- Ranney Well Substation - Is within the 100 year floodplain
- Endicott Water Department - Prone to flooding during 500 year flood events
- Endicott Municipal Light Department - Prone to flooding during 500 year flood events
- Village of Endicott Street Department - Prone to flooding during 500 year flood events

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - flooding by Glendale drive



- My house is fine but I know the corner of Center St and Crescent Dr in Endwell has been known to flood in extreme conditions along with multiple houses in all directions.
- Nanticoke Creek along Rte 26 and Endicott.
- NYSEG needs to be better prepared and implement preventative measures. Many areas see constant outages at the slightest storms.
- Most of the tri-cities area is vulnerable to flooding and we know this from 2006 and 2011
- We must dredge the river. Dirt is building up increasing the size of islands causing flooding.
- Poor pipe infrastructure in Northside Endicott that has issues after storms with losing pressure and being brown for days. Water pooling on highway right after Madison ave intersection under bridge
- Out dated utility infrastructure that is and has been paid for monthly for decades. Flood walls and embankments need rebuild. Overall infrastructure is an absolute joke.
- Excessive speeding on Alexander Street which continues and Sheriff has not enforced.
- All of Franklin Street in Endicott floods. All of the underpass in Endicott flood. The corner of North Duane and Franklin in Endicott is a giant lake when it rains hard. To get from the north side of Endicott to west Endicott during a strong rain you only have 2 options especially in the dark not being able to see the water levels on the street
- Poor drainage on too many main streets including the Vestal Parkway and Main Street in Endicott. If you can't get the storm drains to handle rainwater on the main streets then they pose an issue to emergency vehicles or the average person driving.
- Our intersection and other low laying streets flood a lot. Main and Washington. North and Jefferson. North and Madison. Madison and Monroe..too many to list
- **Questions or concerns regarding hazard mitigation in Broome County.**
  - Just to be kept informed of anything in my area
  - Please dredge the river. Looked trucking has offered for free! To keep the stone. A win/win.
  - Information about pollutants that are new and historical from businesses that are here currently and historical ones
  - This area is a major catastrophic disaster waiting to happen and when it does. It will be just as in the past. Remain the same until the next one. Remember 1946??
  - Please do the sensible, responsible and right thing by the law and use common sense for our children's and family safety. You can always get more money but not a lost life.



## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

- You can't control the weather. It's not Broome county's fault some of the local municipalities have lacked in areas such as fixing the flooding issues or that the power goes out a lot. But if you could be more timely with your response or more logical (if it's freezing outside I can use my deck as a fridge can I have something like a warm meal instead warm cup of coffee or hot chocolate would do)
- We don't need beautification projects/funds. We need infrastructure improvements. Why try to attract people or businesses if the water is bad, roads/bridges are bad and power outages are frequent?
- Social media like fb and Twitter share it to late or even days after the fact. Useless



**Fenton (T)**

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Fenton (T)	124	66	9

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Fenton (T)	22	7	0	47	\$546,088

Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
WAREHOUSE	207 W SERVICE RD	Fenton (T)	Hazardous Materials Facility	Hazardous Materials	Y
Binghamton First Church of the Nazarene		Fenton (T)	Shelter	Food, Hydration, Shelter	Y
Bridge_1046820	0.5 MI NE JCT RTS 369 & 7	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_1046830	0.2 MI S JCT RTS 369 + 79	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_1050220	4 MI W JCT RTS 990J & 369	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_1073750	INTS. RT 12A & 88I	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_1073770	1.1MI SW INTS RT12A & 88I	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_2225510	0.25 MILE WEST OF NYS 369	Fenton (T)	Highway Bridge	Transportation	Y
Bridge_3349350	3.0 MI N JCT NY7 & NY369	Fenton (T)	Highway Bridge	Transportation	Y



### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Fenton (T)	67	646	3,006

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - lack of back-up power for electricity, internet, cable TV
  - Front St area from Clinton to city line gets water in basement when ever heavy rains
  - Potential dangerous trees in Chenango Valley State Park, 9 and 10 Pigeon Hill Rd. Our properties border state park, numerous times trees have fallen on our properties, one time smashing my truck in my driveway, next time one falls possible on our houses, supervisor is aware of problem and refuses to rectify the problem
  - Power is constantly going out in the area of Hillcrest when there is a storm. Trees fall down constantly as well.



## Johnson City (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Johnson City (V)	488	297	12

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Johnson City (V)	186	29	1	201	\$14,838,944

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Communications_31	124 Brown Street	Johnson City (V)	Communications	Communications	Y
Speedway 7656	709 Harry L Dr.	Johnson City (V)	Hazardous Materials Facility	Hazardous Materials	Y
Oakdale Road Pump Station		Johnson City (V)	Wastewater Lift Station	Water Systems	Y
Valley Plaza Pump Station		Johnson City (V)	Wastewater Lift Station	Water Systems	Y
Superior		Johnson City (V)	EMS	Health and Medical	Y
Petco	420 Harry L Drive, Johnso	Johnson City (V)	Pet Store		Y
Blessed Sacrament School		Johnson City (V)	Shelter	Food, Hydration, Shelter	Y
Bridge_1063179	0.5 MI E JCT RTS 17 + 17C	Johnson City (V)	Highway Bridge	Transportation	Y
Bridge_1072970	0.2MI.S.JCT.RTES. 17 &201	Johnson City (V)	Highway Bridge	Transportation	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1072980	0.1MI.S.INTER.RTES201&17C	Johnson City (V)	Highway Bridge	Transportation	Y
Bridge_2257650	VILLAGE OF JOHNSON CITY	Johnson City (V)	Highway Bridge	Transportation	Y
Bridge_3349840	VILLAGE OF JOHNSON CITY	Johnson City (V)	Highway Bridge	Transportation	Y
Bridge_7702230	VILLAGE OF JOHNSON CITY	Johnson City (V)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Johnson City (V)	307	6,997	8,830

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

- Johnson City Water Department - Facility is protected by a levee that was overtopped during flood events of 2006 & 2011

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Trees subject to collapse in high winds/ice storms
  - Helen St and Shelby St, Both in Johnson City
  - Cherry Street, Johnson City. SLUM HOUSING .ROOF SHINGLES EVERYWHERE .GARBAGE EVERYWHERE. CODE VIOLATIONS GALORE.
  - Poplar St, brand new apartments build where flood destroyed homes
  - Boland Park Area of Johnson City, 400-500 block of Grand Ave.
  - Riverside Drive in Johnson City needs more flood water countermeasures.
  - Harry I Dr., streets homes and businesses off Harry L. Dr. and lower Oakdale Road Johnson City



- The end of Nassau Street along highway has no streetlights. No one will come and address the problem which has been going on for years
- Greensfield Park flooding with every heavy rain
- In 2005 and 2006, flood waters were only 2 blocks from my home. In 2011, one block. Clearly, I question what a third flood would do. Especially since structural barriers are no longer there. Those who got slammed in '05 and '06 begged to have something done, but got clobbered in 2011 as their cries were not heard. I was always told that steps would be taken by the US Army Corp of Engineers to secure the area at the end of Grand Avenue and along the river at Boland, but I am not sure anything has been done.
- Lots of them. Not my job to police
- Lower Oakdale Road has been flooded in the past. I do not know why Mom's House, Physical Therapy Business and others have built there.
- Questions or concerns regarding hazard mitigation in Broome County.
  - I personally do not need information in a language other than English. however, my community has a growing population of Spanish and Creole speaking residents.



## Kirkwood (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Kirkwood (T)	276	152	25

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Kirkwood (T)	55	38	10	220	\$8,349,045

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Communications_33	18 Link Drive	Kirkwood (T)	Communications	Communications	Y
Five Mile Point Station 2	No Address	Kirkwood (T)	Hazardous Materials Facility	Hazardous Materials	Y
FRITO LAY	10 SPUD LANE, BINGHAMTON NY 13904	Kirkwood (T)	Wastewater Lift Station	Water Systems	Y
GARY'S U-PULL IT INC	230 COLESVILLE RD, BINGHAMTON NY 13904	Kirkwood (T)	Wastewater Lift Station	Water Systems	Y
AMREX CHEMICAL CO. INC. - LOUGHLIN ROAD	42 LOUGHLIN ROAD	Kirkwood (T)	EMS	Health and Medical	Y
Verizon CO (VZ- NY72104)	25 ROBERTS STREET	Kirkwood (T)	Pet Store		Y
WELL NEXT TO PUMP HOUSE		Kirkwood (T)	Shelter	Food, Hydration, Shelter	Y
Kirkwood Town Hall	70 Crescent Drive	Kirkwood (T)	Highway Bridge	Transportation	Y
Floyd Bell ES	15 GOLDEN ST	Kirkwood (T)	Highway Bridge	Transportation	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Kirkwood United Methodist Church		Kirkwood (T)	Highway Bridge	Transportation	Y
Bridge_1008099	JCT RTE 11 + INT I-81+17	Kirkwood (T)	Highway Bridge	Transportation	Y
Bridge_1008130	0.7 MI E OF E BING CTY LI	Kirkwood (T)	Highway Bridge	Transportation	Y
Bridge_1013111	1.7 MI NW EXIT 2 RTE I-81	Kirkwood (T)	Highway Bridge	Transportation	Y
Bridge_1013120	1.3 MI NW EXIT 2 RTE I-81	Kirkwood (T)	Communications	Communications	Y
Bridge_1031072	0.7 MI N PENNSYLVANIA LI	Kirkwood (T)	Hazardous Materials Facility	Hazardous Materials	Y
Bridge_1031111	1.5 MI N EXIT 1 RTE I-81	Kirkwood (T)	Wastewater Lift Station	Water Systems	Y
Bridge_1031112	1.5 MI N EXIT 1 RTE I-81	Kirkwood (T)	Wastewater Lift Station	Water Systems	Y
Bridge_1050190	JCT RTS 990F+17 CONNECTOR	Kirkwood (T)	EMS	Health and Medical	Y
Bridge_1073962	INTERS 81I&88I-CHENANGO R	Kirkwood (T)	Pet Store		Y
Bridge_3369030		Kirkwood (T)	Shelter	Food, Hydration, Shelter	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Kirkwood (T)	135	89	2,243

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- **Identify vulnerable areas in your community.**
  - Hiner Road has not been improved since the storm of 2018. The City is not willing to take action
  - Cleaning out of creeks on Foley Road to prevent flooding





## Hazard Mitigation Plan 2024 Update | Broome County Problem Statements

- Foley rd., blatchley rd. is now flooding, the rural areas of Kirkwood and Windsor are often neglected. There are places on Trim St that flood as well, these are COUNTY roads.
- **Questions or concerns regarding hazard mitigation in Broome County.**
  - Clean out the creeks, rivers to prevent flooding. I know DEC will bitch but they need to realize that saving 1 fish is not worth trying to save buildings
  - Yes-- I am also concerned with NYC trash/ waste being shipped here.



**Lisle (T)**

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Lisle (T)	50	26	8

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Lisle (T)	8	0	0	7	\$159,822

Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
WELL #1		Lisle (T)	Potable Well	Water Systems	Y
Killawog Post Office	614 Jennings Creek Rd	Lisle (T)	Post Office	Safety and Security	Y
Bridge_1030530	JCT RTE 79+TIOUGHNIOGA R	Lisle (T)	Highway Bridge	Transportation	Y
Bridge_1030550	4.1 MI W JCT RTS 79&I-81	Lisle (T)	Highway Bridge	Transportation	Y
Bridge_3349400	2.8 MILES NORTH OF LISLE	Lisle (T)	Highway Bridge	Transportation	Y
Bridge_3349410	HAMLET OF KILLAWOG	Lisle (T)	Highway Bridge	Transportation	Y
Bridge_3349440	AT KILLAWOG	Lisle (T)	Highway Bridge	Transportation	Y
Bridge_3349460	HAMLET OF MANNINGVILLE	Lisle (T)	Highway Bridge	Transportation	Y





### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Lisle (T)	23	395	666

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

no public input as of 1/24/24



## Lisle (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Lisle (V)	84	37	2

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Lisle (V)	1	0	0	1	\$7,958

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Lisle Free Library		Lisle (V)	Library		Y
Lisle Post Office	8988 Main St	Lisle (V)	Post Office	Safety and Security	Y
Bridge_2225530	HAMLET OF LISLE	Lisle (V)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Lisle (V)	26	97	113



*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - live on Dudley Creek, lower whiting hill road which empties into nearby river.



## Maine (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Maine (T)	204	93	7

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Maine (T)	27	6	0	33	\$1,248,563

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
SOUTH WELL #1		Maine (T)	Potable Well	Water Systems	Y
Bridge_1018500	3.4 MI N JCT RTS 26 + 38B	Maine (T)	Highway Bridge	Transportation	Y
Bridge_1018510	3.7 MI N JCT RTS 26 + 38B	Maine (T)	Highway Bridge	Transportation	Y
Bridge_1095160	0.3 MI N JCT RTS 26 + 38B	Maine (T)	Highway Bridge	Transportation	Y
Bridge_2225630	HAMLET OF MAINE	Maine (T)	Highway Bridge	Transportation	Y
Bridge_3349550	3.5 MI NORTH OF MAINE	Maine (T)	Highway Bridge	Transportation	Y
Bridge_3349670	1.0 MI NE OF MAINE	Maine (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Maine (T)	127	684	2,433

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

- Nanticoke Road in between intersection with Tiona Road and Ames Road - high water covers the road making is impassable either in or out
- Edson Road near intersection with Pollard Hill Road - during high rain, creek overflows banks and endangers houses and road

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - increase possibility of flooding if IDA project occurs lower airport road...
  - poor vulnerable power grid in Town of Maine and close. Loose power often - at least twice last year in below freezing weather - needed coats in house - no water
  - Nanticoke creek in West corners
  - flooding along Nanticoke Creek in the town of Maine
  - NYS Rte 26 West Corners to Maine
  - Plan to develop Westover GE site by raising ground level, thus diverting floodwater to already flood-vulnerable areas
- Questions or concerns regarding hazard mitigation in Broome County.
  - the outer small towns get little attention. The 1970's small stream dams should be revisited for increased rainfall and the change in lands ability (tree removal) to absorb rain due to urban/rural development.
  - don't forget - air pollution (smoke) and even nuclear radiation - plus long-term loss of electrical grid due to cyber-attack.
  - Better detailed info from NYSEG on power outages.
  - River flooding is the most likely disaster. Mitigation technology and policies are well-known. Political will and trust are needed.



## Nanticoke (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Nanticoke (T)	56	28	2

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Nanticoke (T)	9	1	0	3	\$64,297

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_3349570	HAMLET OF NANTICOKE	Nanticoke (T)	Highway Bridge	Transportation	Y
Bridge_3349590	HAMLET OF GLEN AUBREY	Nanticoke (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Nanticoke (T)	28	0	600

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty



### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Flooding of Rte 26 along course of East Branch of Nanticoke Creek, from north to south in Broome County.
  - Northern Broome areas - towns of Triangle, Nanticoke, Lisle, Barker Horrible cell service - limits communication in a disaster/emergency event Continual loss of power - even in the slightest of storms
- Questions or concerns regarding hazard mitigation in Broome County.
  - How many times does Route 26 have to flood for serious mitigation to occur?
  - Better snow removal from county roads on the weekends.



## Port Dickinson (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Port Dickinson (V)	165	82	3

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Port Dickinson (V)	24	0	0	14	\$363,306

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Wayne Ave Pump Station		Port Dickinson (V)	Wastewater Lift Station	Water Systems	Y
Village of Port Dickinson		Port Dickinson (V)	Public Works	Safety and Security	Y
Bridge_1073780	1.6MI W JCT RTS I81 & 7	Port Dickinson (V)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Port Dickinson (V)	72	539	718



*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

no public input as of 1/24/24



## Sanford (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Sanford (T)	22	20	7

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Sanford (T)	21	2	0	17	\$232,683

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1013331	JCT RTE 17+W B DELAWARE R	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_1013332	JCT RTE 17+W B DELAWARE R	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_1094030	0.1 MI S JCT RTS 41 + 17	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_2225670	2 MILES NE OF SANFORD	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_3349620	HAMLET OF MCCLURE	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_3349630	AT HAMLET OF SANFORD	Sanford (T)	Highway Bridge	Transportation	Y
Bridge_3352290	AT HALE EDDY	Sanford (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Sanford (T)	11	114	463

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Dirt roads that wash out not fixed properly for running water during storms. Cass rd. nineveh
  - north Sanford rd. at the bridge over oquaga creek



## Triangle (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Triangle (T)	4	2	3

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Triangle (T)	0	0	0	1	\$-

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_3349680	0.1 MI WEST OF LISLE	Triangle (T)	Highway Bridge	Transportation	Y
Bridge_3349700	3 MIL. E. OF KILLAWOG	Triangle (T)	Highway Bridge	Transportation	Y
Bridge_3349720	1.0 MI N OF WHITNEY POINT	Triangle (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Triangle (T)	0	53	564

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

no public input as of 1/24/24



**Union (T)**

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Union (T)	1,969	1,009	22

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Union (T)	276	90	16	548	\$23,158,435

Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Trugreen Lawncare	629 Dickson st	Union (T)	Hazardous Materials Facility	Hazardous Materials	Y
WELL #5, FIFTH STREET		Union (T)	Potable Well	Water Systems	Y
Argonne Ave Pump Station		Union (T)	Wastewater Lift Station	Water Systems	Y
Watson Blvd Pump Station		Union (T)	Wastewater Lift Station	Water Systems	Y
Family Child Care	28 Frederick Street	Union (T)	Daycare		Y
Child Care Center	770 Harry L	Union (T)	Daycare		Y
Family Child Care	409 West Wendell	Union (T)	Daycare		Y
Johnson City YMCA	740 Main Street	Union (T)	Polling Location		Y
Ann G McGuinness School		Union (T)	Shelter	Food, Hydration, Shelter	Y
Bridge_1014260	1.5MI E OF W BROOME CO LI	Union (T)	Highway Bridge	Transportation	Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1014270	1.7MI E OF W BROOME CO LI	Union (T)	Highway Bridge	Transportation	Y
Bridge_1014300	1.6 MI E JCT RTS 17C + 26	Union (T)	Highway Bridge	Transportation	Y
Bridge_1054832	1.2 MI E JCT RTS 17 + 26	Union (T)	Highway Bridge	Transportation	Y
Bridge_1054851	2.1 MI E JCT RTS 17 + 26	Union (T)	Highway Bridge	Transportation	Y
Bridge_1054852	2.1 MI E JCT RTS 17 + 26	Union (T)	Highway Bridge	Transportation	Y
Bridge_1063161	0.9 MI W JCT RTS 17 + 201	Union (T)	Highway Bridge	Transportation	Y
Bridge_1063269	JCT RTS 201 + 17C	Union (T)	Highway Bridge	Transportation	Y
Bridge_1063270	JCT RTS 17C + 201	Union (T)	Highway Bridge	Transportation	Y
Bridge_1063430	0.7 MI N JCT RTS 26 + 17C	Union (T)	Highway Bridge	Transportation	Y
Bridge_1072990	0.1MI.S.INTER.RTES291&17C	Union (T)	Highway Bridge	Transportation	Y
Bridge_2225740	BTW 17 & 17C OVER PATTERS	Union (T)	Highway Bridge	Transportation	Y
Bridge_2225790	HAMLET OF ENDWELL	Union (T)	Highway Bridge	Transportation	Y
Bridge_3349750	1.0 MI N OF ENDWELL	Union (T)	Highway Bridge	Transportation	Y
Bridge_3349780	HAMLET OF UNION CENTER	Union (T)	Highway Bridge	Transportation	Y
Bridge_3349790	HAMLET OF ENDWELL	Union (T)	Highway Bridge	Transportation	Y
Bridge_3358710	AT UNION	Union (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Union (T)	1,000	5,453	6,167

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.



- Many water and sewer systems in the hamlets, villages, city, and towns in Broome County have failed due to defects in these systems. The defects are age related and need to be repaired.
- Glendale Drive and areas east of Route 26 in West Corners are vulnerable to flooding from Nanticoke Creek. Backup power for the data center in the County Office Building is in the basement, which has been flooded in the past; this could negatively affect all County emergency operations.
- Endicott water supply. Broome county sewage discharge after each rain storm.
- All Electrical and Natural Gas Distribution and transmission systems
- One culvert east of and one culvert west of Route 26 bridge on north side of Susquehanna River just southeast of U-E High School parking lot that are supposed to carry water under Chugnut Trail are clogged. This causes storm water to run over the trail and erode the southern edge of trail. There are probably other culverts that need to be regularly inspected and maintained too.
- This is job of code enforcement, highway departments, building inspectors, law enforcement ... ridiculously high taxes, do you jobs
- Not enough flood walls
- Carl by the laundry mat
- Route 26 and most of Nanticoke creek in the West Corners area.
- Fill sites and developments located on Airport Rd and Commercial Dr in the Town of Maine are causing sediment buildup in the downstream dams. Erosion control is not implemented (or done poorly) with little to no municipal oversight. Airport Inn was allowed to clear 2 acres of land and throw 80 ft of pipe into a stream to create a parking lot made of millings. Additionally, various sites like the concrete plants on Vestal Rd track sediment onto the roadway creating dust which in turn creates air quality issues. Development is good but not at the cost of do-whatever-you-want. But then again, this entire State is headed in that direction.
- Union Endicott High School, Main Street, Endicott.

Questions or concerns regarding hazard mitigation in Broome County.

- Broome County should hold Emergency Preparedness seminars throughout the year either, in person at local schools or libraries or on Zoom, to train community members so they can become turn-key trainers for smaller groups of people they know personally. I have taught Emergency Preparedness to children and adults as a public school and an independent living skills teacher. I would definitely be willing to teach community members how to teach their friends and family to be prepared for all types of emergencies.



- During and after the 2011 flood, it would have been helpful to receive official information about how to handle natural gas powered appliances that had been flooded. Unethical plumbing/heating companies were engaged in fear-mongering.
- I do not know what was meant by regulatory/non-regulatory in Question #9
- ALL emergency notifications need to be offered in multiple languages so that all people living in our community are informed! Shocking that is even a question on this survey
- FEMA Floodplain maps include areas that have never flooded.
- Climate Change is increasing the incidence rate and severity of many of the problems asked about in this survey and is likely to eventually result in food shortages, too as well as supply chain problems. We are still sleep walking toward Climate Catastrophe. Climate Change needs much more urgent action at appropriate scale and officials need to be addressing this and communicating about it!
- Regarding question 14; while I prefer communications/information be provided in English, I also know there is a need for information to be provided in other languages.



**Vestal (T)**

Hazards

Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Vestal (T)	2,384	836	35

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Vestal (T)	347	71	9	487	\$24,216,989

**Critical Facilities and Community Lifelines**

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Vestal Company 1	No Address	Vestal (T)	Fire Station	Safety and Security	Y
Superior Plus Energy Services - Warners	116 Old Vestal Rd,	Vestal (T)	Hazardous Materials Facility	Hazardous Materials	Y
African Road Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Circle Drive Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Myrtle Street Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
River Road Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Stage Road Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Third Avenue Pump Station		Vestal (T)	Wastewater Lift Station	Water Systems	Y
Vestal Volunteer ES		Vestal (T)	EMS	Health and Medical	Y
Vestal Fire Company 1	116 N Main Street	Vestal (T)	Polling Location		Y
Vestal Center Methodist Church	472 West Hill Road	Vestal (T)	Polling Location		Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Glenwood Elementary School		Vestal (T)	Shelter	Food, Hydration, Shelter	Y
Southern Tier Veterinary Associates	205 Front Street, Vestal	Vestal (T)	Veterinarian	Health and Medical	Y
Bridge_1014359	JCT RTE 201+SUSQUEHANNA R	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1018431		Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1018432		Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054781	2.0 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054782	2.0 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054791	1.0 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054792	1.0 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054801	0.6 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054802	0.6 MI W JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054821	0.8 MI E JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054822	0.8 MI E JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1054831	1.2 MI E JCT RTS 17 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1063319	3.4 MI W JCT RTS 434 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_1063329	12 MI W JCT RTS 434 + 26	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_2225900	HAMLET OF VESTAL	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_2225910	0.5 MI SOUTH OF VESTAL	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_2225920	2 MI. SOUTH OF VESTAL	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_2225940	1.5 MI.SE OF VESTAL	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_3349850	HAMLET OF VESTAL	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_3349910	0.5 MI S OF JOHNSON CITY	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_3349920	1.5 MI SE VESTAL CENTER	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_3349930	.5 MI SW VESTAL CENTER	Vestal (T)	Highway Bridge	Transportation	Y
Bridge_3349940	.5 MI W VESTAL CENTER	Vestal (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Vestal (T)	1,100	5,531	12,135

Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty



## Problem Area Input/Potential Actions

no public input as of 1/24/24

## Public Survey Feedback

- Identify vulnerable areas in your community.
  - Many of our elderly and economically disadvantaged community members do not have access to heating/cooling centers during extreme temperatures due to lack of transportation
  - old vesta rd. flooding
  - public drinking water sewage treatment facility
  - Overall in Broome County we are experiencing a lot of trees being cut down. This affects erosion, and contributes to flooding. The roots of trees absorb thousand of gallons of water daily.
  - Old vestal rd.-lower front st
  - Flood prone area McFall Rd., Apalachin. Flood ins. was not originally required.
  - clearing storm drains before and during major storms
  - Twin Orchard area of Vestal is now new to flooding. Would like to really know why the rivers cannot be dredged to clean them. It should become a priority after 2011 and billions of dollars lost during the flooding in our local area. Some things have changed upstream and now river levels rise much higher and quicker during major storms. We need to look at what can and should be done to protect citizens from the flooding. We have not done anything since the flood to help protect businesses and properties from the really high risk of another disaster.
  - Any on a well without generator for pumps. Industrial parks with petroleum fuels in flood zones. Remove invasive species along Susquehanna and replace with riparian buffer species. Prevent further impermeable pavement at moore park and along parkway. Make structures permeable with native plantings.
  - Flooding risk, loss of power frequently
  - once a property is torn down for being in a flood and not repaired the property needs to remain vacant forever, not until people don't remember when



- Flooding from Susquehanna and also creeks
- Unaware of any specific unaddressed vulnerability in my locality
- Clubhouse Road onto 434 in Vestal -- the intersection often floods/gets standing water and then the sensors appear to not work at the traffic light and after waiting 3 minutes or so on Clubhouse drivers begin to run the red light.
- Questions or concerns regarding hazard mitigation in Broome County.
  - Public libraries can be a key partner in helping with communication and aftermath. They can offer warming/cooling, public computing, and Wi-Fi, among others
  - Thank you for all you do!
  - signage like they have in Florida for evacuation route in flood prone areas
  - Environmental pollution caused by overuse of hazardous, often carcinogenic chemicals by lawn service companies threatens my health and my pet's health and local wildlife's health. Regulation and enforcement should be strengthened regarding this issue.
  - Please focus on reclaiming wetlands clearing streams that feed into the Susquehanna, and co-use floodplains like community/insect gardens, native riparian plantings and parks. Further, cull the deer population that is browsing understory plants that assist with absorbing heavy rains and retaining soil during drought/rain cycles.
  - How do we prepare and protect.
  - Hazardous waste is being trucked through our area - what is the plan for a toxic spill?
  - Please exercise extra concern for our vulnerable populations such as the unhoused, elderly, and low-income families. They may not have access to other resources and depend on the county to assist them in disasters.



## Whitney Point (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Whitney Point (V)	234	119	12

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Whitney Point (V)	4	1	0	3	\$35,416

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
WELL PW-1		Whitney Point (V)	Potable Well	Water Systems	Y
WELL PW-2		Whitney Point (V)	Potable Well	Water Systems	Y
WELL PW-3		Whitney Point (V)	Potable Well	Water Systems	Y
Village of Whitney Point		Whitney Point (V)	Public Works	Safety and Security	Y
Northern Broome Senior Center	12 Strongs Pl, Whitney Point, NY 13862	Whitney Point (V)	Senior Center		Y
Mary Wilcox Memorial Library		Whitney Point (V)	Library		Y
Triangle Town Hall		Whitney Point (V)	Town Hall	Safety and Security	Y
Triangle Town Hall	2612 Liberty Street	Whitney Point (V)	Polling Location		Y



Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Whitney Point Post Office	2643 Main St	Whitney Point (V)	Post Office	Safety and Security	Y
Bridge_1008320	JCT RTE 11+TIOUGHNIOGA R	Whitney Point (V)	Highway Bridge	Transportation	Y
Bridge_1018600	JCT RTE 26+TIOUGHNIOGA R	Whitney Point (V)	Highway Bridge	Transportation	Y
Bridge_1031261	0.9MI N JCT RTS I-81 + 26	Whitney Point (V)	Highway Bridge	Transportation	Y
Bridge_1031271	JCT I-81 + TIOUGHNIOGA R	Whitney Point (V)	Highway Bridge	Transportation	Y
Bridge_1031272	JCT I-81 + TIOUGHNIOGA R	Whitney Point (V)	Highway Bridge	Transportation	Y
Village of Whitney Point WWTP		Whitney Point (V)	Wastewater Treatment Plant	Water Systems	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Whitney Point (V)	185	669	666

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Flooding



## Windsor (T)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Windsor (T)	189	103	6

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Windsor (T)	17	8	0	54	\$1,380,155

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
Bridge_1013221	2.0 MI SE JCT RTS 17 + 79	Windsor (T)	Highway Bridge	Transportation	Y
Bridge_1030420	3.3 MI N JCT RTS 79 + 17	Windsor (T)	Highway Bridge	Transportation	Y
Bridge_2226020	1 MI SE OF OCCANUM	Windsor (T)	Highway Bridge	Transportation	Y
Bridge_2226050	2.5 MI N OF WINDSOR	Windsor (T)	Highway Bridge	Transportation	Y
Bridge_2226110	1.0 MI S W OF OUAGUAGA	Windsor (T)	Highway Bridge	Transportation	Y
Bridge_3349310	3 MI NW OF WINDSOR	Windsor (T)	Highway Bridge	Transportation	Y

### Vulnerable Populations

Total number of vulnerable populations located in hazard areas:



Jurisdiction	Socially Vulnerable Populations Located in Hazard Areas		
	Flood	Earthquake	Wildfire
Windsor (T)	99	194	1,835

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

### Problem Area Input/Potential Actions

no public input as of 1/24/24

### Public Survey Feedback

- Identify vulnerable areas in your community.
  - Rt 79 we constantly having power off with no power for day, or one time it was a week! Need to improve area, prone to high winds and wet snow, and improve nyseg response
  - Foley rd., blatchley rd. is now flooding, the rural areas of Kirkwood and Windsor are often neglected. There are places on Trim St that flood as well, these are COUNTY roads.
  - flooding on Main St in Windsor, NY
  - Inadequate, failing or antiquated guardrail systems on a number of roads and many times nonexistent in obvious hazard areas. Ex: steep dropoffs near road
- Questions or concerns regarding hazard mitigation in Broome County.
  - Yes-- I am also concerned with NYC trash/ waste being shipped here.



## Windsor (V)

### Hazards

#### Flood

Population and buildings in the 1% SFHA

Municipality	Total Number of People in 1% SFHA	Total Number of Buildings in 1% SFHA	Total Number of Community Lifelines in 1% SFHA
Windsor (V)	22	15	7

NFIP Statistics – if there are RL and/or SRL properties in your community, you must identify an action to mitigate those properties

Municipality	Number of NFIP Policies	Number of Repetitive Loss Properties*	Number of Severe Repetitive Loss Properties*	Number of Claims	Total Paid Claims (\$)
Windsor (V)	10	2	0	12	\$113,624

### Critical Facilities and Community Lifelines

The following critical facilities/community lifelines located in the 1% SFHA – for any facility in the 1% SFHA, you must identify an action to protect the facility to the 500-year or worst-case scenario flood.

Facility Name	Address	Jurisdiction	Critical Facility Type	FEMA Lifeline Category	Flood 1%
WELL #1, BEHIND GARAGE		Windsor (V)	Potable Well	Water Systems	Y
WELL #2, ACROSS CREEK		Windsor (V)	Potable Well	Water Systems	Y
Bridge_1013201	0.2 MI E JCT RTS 17 + 79	Windsor (V)	Highway Bridge	Transportation	Y
Bridge_1013202	0.2 MI E JCT RTS 17 + 79	Windsor (V)	Highway Bridge	Transportation	Y
Bridge_1030410	0.6 MI N JCT RTS 79 + 17	Windsor (V)	Highway Bridge	Transportation	Y
Bridge_3349960	VILLAGE OF WINDSOR	Windsor (V)	Highway Bridge	Transportation	Y
Bridge_3350050	AT VILLAGE OF WINDSOR	Windsor (V)	Highway Bridge	Transportation	Y



## Vulnerable Populations

Total number of vulnerable populations located in hazard areas:

Jurisdiction	Flood	Socially Vulnerable Populations Located in Hazard Areas	
		Earthquake	Wildfire
Windsor (V)	10	286	484

*Note: Socially vulnerable populations include the following: persons over 65, persons under 5, non-English speaking persons, persons with a disability, and persons in poverty*

## Problem Area Input/Potential Actions

- Village of Windsor pumphouse - Prone to flooding, location provides potable water for the Villages residents
- Pumphouse - Prone to flooding, it is a critical facility

## Public Survey Feedback

No public input as of 1/24/24



## Types of Mitigation Actions

A mitigation action is a specific action, project, activity, or process taken to reduce or eliminate long-term risk to people and property from hazards and their impacts. Implementing mitigation actions helps achieve the plan’s mission and goals. The actions to reduce vulnerability to threats and hazards form the core of the plan and are a key outcome of the planning process.

The primary types of mitigation actions to reduce long-term vulnerability are:

- Local Plans and Regulations (LPR)
- Structure and Infrastructure Projects (SIP)
- Natural Systems Protection (NSP)
- Education and Awareness Programs (EAP)

Mitigation Type	Description	Examples
Local Plans and Regulations	These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.	<ul style="list-style-type: none"> <li>▪ Comprehensive plans</li> <li>▪ Land use ordinances</li> <li>▪ Subdivision regulations</li> <li>▪ Development review</li> <li>▪ Building codes and enforcement</li> <li>▪ NFIP Community Rating System</li> <li>▪ Capital improvement programs</li> <li>▪ Open space preservation</li> <li>▪ Stormwater management regulations and master plans</li> </ul>
Structure and Infrastructure Projects	<p>These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure.</p> <p>This type of action also involves projects to construct manmade structures to reduce the impact of hazards.</p> <p>Many of these types of actions are projects eligible for funding through the FEMA Hazard Mitigation Assistance program.</p>	<ul style="list-style-type: none"> <li>▪ Acquisitions and elevations of structures in flood prone areas</li> <li>▪ Utility undergrounding</li> <li>▪ Structural retrofits</li> <li>▪ Floodwalls and retaining walls</li> <li>▪ Detention and retention structures</li> <li>▪ Culverts</li> <li>▪ Safe rooms</li> </ul>
Natural Systems Protection	These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.	<ul style="list-style-type: none"> <li>▪ Sediment and erosion control</li> <li>▪ Stream corridor restoration</li> <li>▪ Forest management</li> <li>▪ Conservation easements</li> <li>▪ Wetland restoration and preservation</li> </ul>
Education and Awareness Programs	These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady or Firewise Communities. Although this type of mitigation reduces risk less directly than structural projects or regulation, it is an important foundation. A greater understanding and awareness of hazards and risk among local officials, stakeholders, and the public is more likely to lead to direct actions.	<ul style="list-style-type: none"> <li>▪ Radio or television spots</li> <li>▪ Websites with maps and information</li> <li>▪ Real estate disclosure</li> <li>▪ Presentations to school groups or neighborhood organizations</li> <li>▪ Mailings to residents in hazard-prone areas</li> <li>▪ StormReady</li> <li>▪ Firewise Communities</li> </ul>





For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?	1	Protect residents from falling trees
Property Protection	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?	1	Protect structures from tree damage
Cost-Effectiveness	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Cost effective project
Political	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?	1	-
Legal	Does the jurisdiction have the authority to implement the action?	0	The Town has the legal authority to conduct the project on public lands but not on private property
Fiscal	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?	0	Project requires funding support
Environmental	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	1	Project will address environmental impacts of diseased trees
Social Vulnerability	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.	0	-
Administrative	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?	1	-
Hazards of Concern	Does the action address one or more of the jurisdiction's high-ranked hazards?	1	Drought, Extreme Temperature, Invasive Species, Severe Weather, Severe Winter Weather, Wildfire
Climate Change	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	1	-
Timeline	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	To be completed within 5 years
Community Lifelines	Does this project benefit community lifelines?	1	Provide protection to critical facilities from downed trees
Other Objectives	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?	1	-
<b>Total</b>		11	-
<b>Priority (High/Med/Low)</b>		High	-





For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?	1	Reduces flood risk to life, maintain access for emergency services
<b>Property Protection</b>	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?	1	Reduces damage risk to bridges and causeways
<b>Cost-Effectiveness</b>	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Project is cost effective
<b>Political</b>	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?	0	-
<b>Legal</b>	Does the jurisdiction have the authority to implement the action?	1	The Township has the legal authority to conduct the project.
<b>Fiscal</b>	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?	0	The Township will need grant funding to complete this project.
<b>Environmental</b>	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	1	No environmental impacts
<b>Social Vulnerability</b>	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.	0	No impacts on socially vulnerable populations
<b>Administrative</b>	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?	1	-
<b>Hazards of Concern</b>	Does the action address one or more of the jurisdiction's high-ranked hazards?	1	Flood, Severe Storm, Severe Winter Storm
<b>Climate Change</b>	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	1	-
<b>Timeline</b>	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	-
<b>Community Lifelines</b>	Does this project benefit community lifelines?	1	Yes – bridges and causeways are identified as lifelines
<b>Other Objectives</b>	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?	1	-
<b>Total</b>		11	-
<b>Priority (High/Med/Low)</b>		High	-





For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?	1	Protects critical services of the municipal/DPW complex
<b>Property Protection</b>	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?	1	Protects facility from flood damages
<b>Cost-Effectiveness</b>	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Project is cost effective
<b>Political</b>	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?	1	-
<b>Legal</b>	Does the jurisdiction have the authority to implement the action?	1	The Borough has the legal authority to conduct the project.
<b>Fiscal</b>	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?	0	The Borough will need grant funding to complete this project.
<b>Environmental</b>	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	0	No environmental impacts
<b>Social Vulnerability</b>	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.	0	No impacts on socially vulnerable populations
<b>Administrative</b>	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?	1	-
<b>Hazards of Concern</b>	Does the action address one or more of the jurisdiction's high-ranked hazards?	1	Flood, Severe Storm
<b>Climate Change</b>	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	1	-
<b>Timeline</b>	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	Project can be completed within 5 years; however, depends on grant funding
<b>Community Lifelines</b>	Does this project benefit community lifelines?	1	Protects a community lifeline from flood damages
<b>Other Objectives</b>	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?	1	-
<b>Total</b>		11	-
<b>Priority (High/Med/Low)</b>		High	-





For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?	1	Reduces flood risk to life, maintain access for emergency services
<b>Property Protection</b>	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?	1	Protect roadways from flooding; reduce/eliminate damage to culverts
<b>Cost-Effectiveness</b>	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Project is cost effective
<b>Political</b>	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?	0	-
<b>Legal</b>	Does the jurisdiction have the authority to implement the action?	1	The Township has the legal authority to conduct the project.
<b>Fiscal</b>	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?	0	The Township will need grant funding to complete this project.
<b>Environmental</b>	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	1	No environmental impacts
<b>Social Vulnerability</b>	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.	0	No impacts on socially vulnerable populations
<b>Administrative</b>	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?	1	-
<b>Hazards of Concern</b>	Does the action address one or more of the jurisdiction's high-ranked hazards?	1	Flood, Severe Storm, Severe Winter Storm
<b>Climate Change</b>	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	1	-
<b>Timeline</b>	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	-
<b>Community Lifelines</b>	Does this project benefit community lifelines?	1	Yes – bridges and causeways are identified as lifelines
<b>Other Objectives</b>	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?	1	-
<b>Total</b>		11	-
<b>Priority (High/Med/Low)</b>		High	-



<b>Action Name:</b>	Repetitive Loss Mitigation		
<b>Description of the Problem:</b>	Frequent flooding events have resulted in damages to residential properties. These properties have been repetitively flooded as documented by paid NFIP claims. The Village has 12 repetitive loss properties, but other properties may be impacted by flooding as well. The Pocantico River corridor is very prone to flooding. There are many records and data maintained by the Village relative to various flooding events. While no lists exist of damaged homes, there are many records.		
<b>Hazard(s) of Concern:</b> <i>Check all that apply</i>	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Extreme Temperature	<input checked="" type="checkbox"/> Flood <input type="checkbox"/> Infestation and Invasive Species <input checked="" type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire	
<b>Description of the Solution:</b>	Conduct outreach to 25 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
<b>Lead Agency:</b>	NFIP Floodplain Administrator, supported by homeowners		
<b>Supporting Agencies:</b>	Village Board		
<b>Impact on Critical Facilities/Lifelines:</b>	No impacts on critical facilities or community lifelines		
<b>Estimated Cost:</b>	>\$100,000		
<b>Potential Funding Sources:</b>	FEMA HMGP, BRIC, and FMA, local cost share by residents		
<b>Implementation Timeline:</b>	6-12 months		
<b>Goals Met:</b>	All		
<b>Benefits:</b>	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.		
<b>Mitigation Action Type:</b> <i>Check all that apply</i>	<input type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input checked="" type="checkbox"/> Education and Awareness Programs (EAP)	
<b>CRS Category:</b> <i>Check all that apply</i>	<input checked="" type="checkbox"/> Preventative Measures (PR) <input type="checkbox"/> Property Protection (PP) <input type="checkbox"/> Public Information (PI)	<input type="checkbox"/> Natural Resource Protection (NR) <input checked="" type="checkbox"/> Structural Flood Control Projects (SP) <input type="checkbox"/> Emergency Services (ES)	
<b>Impact on Socially Vulnerable Populations:</b>	No impacts on socially vulnerable populations		
<b>Impact on Future Development:</b>	No impacts on future development; however, areas in and around the culverts will have accessibility during periods of heavy rain		
<b>Climate Change Considerations:</b>	Climate change projections will be revised and incorporated into the project as needed.		
<b>Priority:</b> <i>Check one</i>	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low



For each criteria, identify whether it is high effectively/feasible/yes (1), neutral/unsure (0), or ineffective/not feasible/no (1) for the mitigation action.

Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
<b>Life Safety</b>	How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?	1	Families moved out of high-risk flood areas.
<b>Property Protection</b>	How significant will the action be at eliminating or reducing damage to structures and infrastructure? Developing in the floodplain or high-risk areas?	1	Properties removed from high-risk flood areas.
<b>Cost-Effectiveness</b>	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Project is cost effective
<b>Political</b>	Is there overall public support for the action? Is there the political will to support it? Is the action at odds with development pressures?	1	-
<b>Legal</b>	Does the jurisdiction have the authority to implement the action?	1	The Village has the legal authority to conduct the project.
<b>Fiscal</b>	Can the action be funded under existing program budgets (i.e., is this initiative currently budgeted for)? Or would it require a new budget authorization or funding from another source such as grants?	0	The Village will need grant funding to complete this project.
<b>Environmental</b>	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	1	No environmental impacts
<b>Social Vulnerability</b>	Does the action benefit socially vulnerable populations and underserved communities? Additional considerations can include the SVI index and other appropriate measures of social vulnerability.	0	No impacts on socially vulnerable populations
<b>Administrative</b>	Does the jurisdiction have the personnel and administrative capabilities to implement the action and maintain it or will outside help be necessary?	0	-
<b>Hazards of Concern</b>	Does the action address one or more of the jurisdiction's high-ranked hazards?	1	Flood, Severe Storm
<b>Climate Change</b>	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	1	-
<b>Timeline</b>	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	Project can be completed within 5 years; however, depends on grant funding
<b>Community Lifelines</b>	Does this project benefit community lifelines?	0	-
<b>Other Objectives</b>	Does the action advance other entity objectives, such as capital improvements, economic development, environmental quality, or open-space preservation? Does it support the policies of other plans and programs?	1	-
<b>Total</b>		11	-
<b>Priority (High/Med/Low)</b>		High	-