



Tt TETRA TECH

Broome County Hazard Mitigation Plan – 2024 Update

Planning Partnership Mitigation Action Workshop
January 31, 2024

Leading with Science®

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Today's Agenda

1. Progress Report
2. Public and Stakeholder Outreach
3. Mitigation Strategy
4. Workshop to Review Previous Actions, Identify New Actions, Complete Municipal Annexes
5. **Check in with Tetra Tech staff before leaving**



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Participation Status



Jurisdiction	Status
Broome County	Need additional input on 2019 actions
Barker (T)	Need additional input on 2019 actions
Binghamton (C)	Need additional input on 2019 actions
Binghamton (T)	Need status of 2019 actions
Chenango (T)	All information received to date
Colesville (T)	Need status of 2019 actions
Conklin (T)	Need status of 2019 actions
Deposit (V)	Need status of 2019 actions
Dickinson (T)	Need status of 2019 actions
Endicott (V)	All information received to date
Fenton (T)	Need status of 2019 actions
Johnson City (V)	All information received to date
Kirkwood (T)	Need status of 2019 actions

Jurisdiction	Status
Lisle (T)	Not Participating
Lisle (V)	Need status of 2019 actions
Maine (T)	Need status of 2019 actions
Nanticoke (T)	All information received to date
Port Dickinson (V)	Need status of 2019 actions
Sanford (T)	Need status of 2019 actions
Triangle (T)	All information received to date
Union (T)	Need additional input on 2019 actions
Vestal (T)	All information received to date
Whitney Point (V)	All information received to date
Windsor (T)	All information received to date
Windsor (V)	All information received to date



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Public and Stakeholder Outreach



- Public Outreach Toolkit –
 - Social media templates and posts
 - Printable materials
- Surveys
 - Stakeholders
 - Neighboring communities
 - Public
- HMP website – [2024 Broome County Multi-Jurisdictional Hazard Mitigation Plan Update | Broome County \(broomecountyny.gov\)](https://broomecountyny.gov/planning/hazardmitigation)
- StoryMap - <https://storymaps.arcgis.com/stories/6f5336592a674f548ff0bd2c360e849d>






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Mitigation Strategy

The **Mitigation Strategy** is the County's roadmap to reduce the risk of hazards identified in the HMP. The strategy is based on hazard impacts, asset vulnerability, and the County's capabilities.

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Purpose of the Mitigation Strategy



- The **Mitigation Strategy** is the long-term blueprint for reducing the potential losses identified in the risk assessment.
- **Mitigation Actions** are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk.
- Need to think about the following...
 - Goals - What outcomes do you want to achieve?
 - Actions - What actions will be taken to reduce risk?
 - Action Plan - How will the action be prioritized and implemented?



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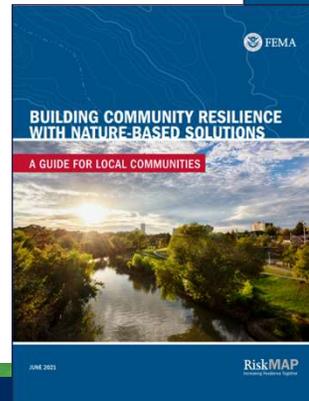
How do you reduce risk?

- How do you reduce risk for a hazard?
 - **Manipulate the Hazard**
 - Structural flood control (e.g., flood walls, levees)
 - **Reduce/Eliminate Exposure**
 - Acquire floodprone properties
 - **Reduce Vulnerability**
 - Retrofit (e.g., floodproofing structures)
 - **Increase Capability**
 - \$, preparation, technical assistance, planning enforcement



Mitigation Ideas

A Resource for Reducing Risk to Natural Hazards



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Using Your Mitigation Strategy to Reduce Risk



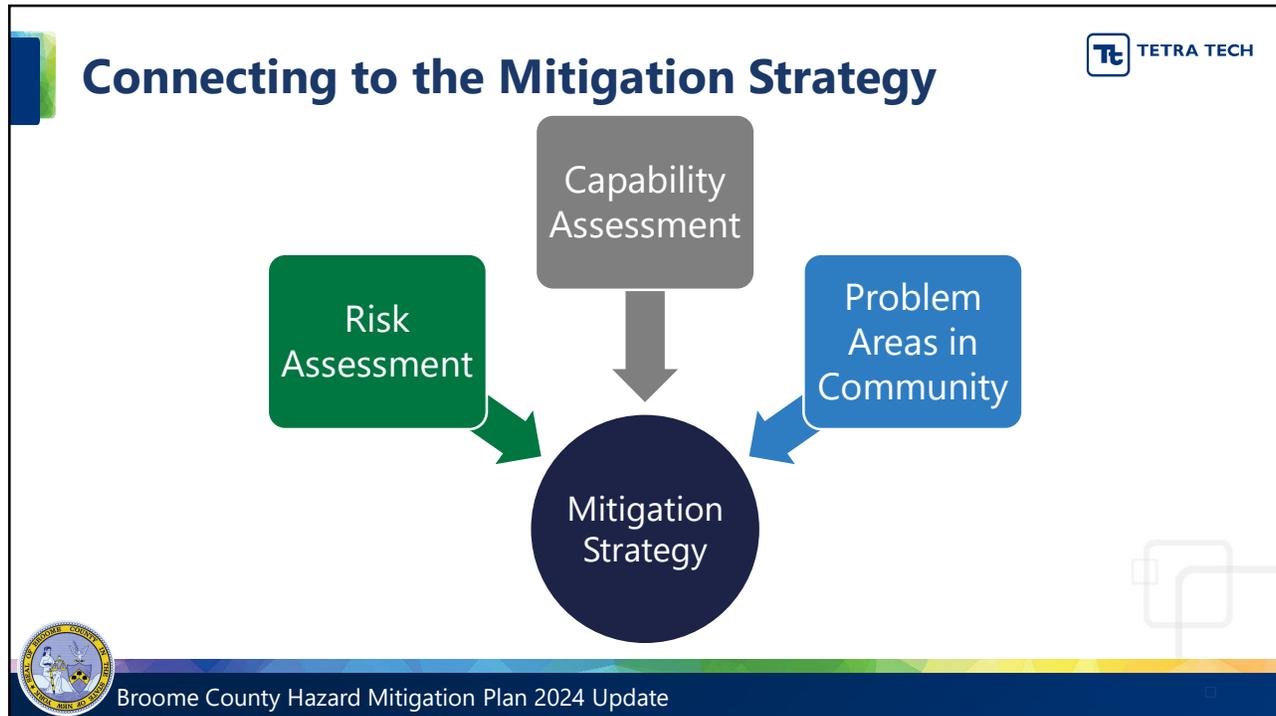
- What is a **Mitigation Strategy**?
 - A group of projects or actions to reduce the impacts of the hazards of concern on your community
 - Plans and Regulations
 - Structure and Infrastructure Studies and Projects
 - Natural Systems Protection Studies and Projects
 - Education and Awareness Programs
- Terms to describe the Mitigation Strategy include:
 - **Mitigation Action Plan** or **Action Plan**
 - **Mitigation Projects** or **Initiatives** or **Actions**

Your Mitigation Strategy table is included in your annex. We will use online forms to collect details on the actions you will include in the 2024 Update.



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Where do you need to focus?

The slide lists several key focus areas for the 2024 Hazard Mitigation Plan (HMP) update. It is organized into three main bullet points, each with sub-points. The Tetra Tech logo is in the top right corner. The Broome County Hazard Mitigation Plan 2024 Update logo is in the bottom left corner.

- **Quality not quantity** each action needs detailed information on the why, who, what, and when of the action.
- **Stronger connection** between the risk assessment and mitigation strategy
- **More specific, achievable actions**
 - Specific projects, in specific locations, in a specific timeframe
 - Focus on socially vulnerable populations and underserved communities
- **2019 Projects**
 - If a project is not finished and still a priority, include in 2024 HMP
 - Remove general projects or make more specific
 - Remove ongoing capabilities like maintenance or annual outreach
- **Diverse actions**
 - You need at least **one action per hazard of concern**. Think about actions that can cover multiple hazards.
 - If you have critical facilities in the floodplain, need an action addressing the facility
 - If you have RL/SRL properties, need an action to mitigate those properties
 - Include a variety of action types (e.g., plans, floodproof critical facilities, outreach programs, etc.)

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Other Mitigation Actions to Consider





MITIGATION RESOURCE GUIDE
Federal funding, technical assistance, and other resources to support hazard mitigation

2022 New York State Hazard Mitigation Planning Standards
(Supersedes the 2017 NYS Hazard Mitigation Planning Standards)

Congratulations on taking the first steps to update a multi-hazard mitigation plan for your community! The goal of both the New York State Division of Homeland Security and Emergency Services (NYS DHSES) and FEMA is that all jurisdictions develop robust mitigation plans and tangible mitigation actions that will contribute to long-term risk reduction.

The 2022 NYS Hazard Mitigation Planning Standards reduce the 2017 Hazard Mitigation Planning Standards. Any plan currently in development, regardless of date funded, will be held only to these reduced standards.

PLEASE NOTE:
On April 19, 2023, FEMA's new Local Mitigation Planning Policy will take effect. Plans approved on or after this date **must meet requirements** as outlined in the linked [Policy Guide](https://www.fema.gov/sites/default/files/documents/fema_local_mitigation_planning_policy.pdf).
https://www.fema.gov/sites/default/files/documents/fema_local_mitigation_planning_policy.pdf

The additional state requirements detailed below are intended to improve the quality of hazard mitigation plans and encourage the development of the most appropriate and effective mitigation projects for your community. It is recognized that many jurisdictions have inherent constraints and certain information may be difficult to provide. NYS DHSES and FEMA will work with you throughout the entire planning process to ensure the successful development of your community's hazard mitigation plan.

There are a multitude of resources that exist to provide guidance and support throughout the planning process, developed by Federal and State agencies, as well as private and research-based groups. We urge you to contact us so that we may direct you to additional resources and provide you with the most comprehensive technical assistance possible.

For questions and comments, please call our office at 518-295-2384. Additional contact information will be provided to sub-recipients for more direct assistance.

- Local Disaster Debris Management Plans
- Substantial Damage Management Plan
- Actions to address high-hazard or significant-hazard dams
- Public education and outreach programs
- Generators at critical facilities and community lifelines
- Floodproofing critical facilities and community lifelines
- Addressing repetitive and severe repetitive loss properties



Mitigation Ideas
A Resource for Reducing Risk to Natural Hazards

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Project Number	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing Capability, No Progress, Complete)	Next Steps 1. Project to be included in the 2024 HMP or Discontinue 2. If including action in the 2024 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
T. Dickinson-1	Broome Community College Pump Station	Flood, Severe Storm	Town Engineer, Public Works Superintendent	Pump station located near Broome Community College, serves the jail, businesses, residential areas. During flood it backs up, put in additional holding build adjacent, tear down the first one negotiate with the county. Engineering design, plans, specs for construction, water and sewer rates.		1. 2. 3.
T. Dickinson-2	College Pumping Station increased storage capacity.	Flood, Severe Storm	Town Engineer, Public Works Superintendent	The Town of Dickinson will replace pipes to double the storage capacity of the College Pumping Station to prevent overflow.		1. 2. 3.
T. Dickinson-3	Dickinson Repetitive Loss Properties	Flood, Severe Storm	Municipal FPA with support from property owner	Conduct an outreach program to the property owners, informing them of the various options there are to mitigate their property. If the owner chooses to mitigate, the town will work with them to develop a grant application to obtain funding to mitigate the property.		1. 2. 3.
T. Dickinson-4	Update the NFIP Flood Damage Prevention Ordinance	Flood	Floodplain Administrator	Update the municipal flood damage prevention ordinance to include the new freeboard requirement of 2 feet above the BFE for both residential and commercial construction.		1. 2. 3.
T. Dickinson-5	Sunrise Terrace Pump Station	Flood, Severe Storm	Public Works Department and Town Engineer	Install a flood wall outside the perimeter of the fence containing the pump station and its supporting equipment.		1. 2. 3.

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Mitigation Strategy Online Form



- We will be collecting input on mitigation actions through an online form
- Complete one form per action (<https://forms.office.com/r/y3a6nhmMkU>)
- We will be providing additional information to help with the actions
- Any questions, reach out!
- All forms are **due March 1st**

Broome County HMP - Mitigation Strategies

Please use this form to develop your mitigation strategy. One form is needed for each strategy/action and FEMA requires one action per hazard of concern. However, one action can address multiple hazards. If you need assistance, please reach out to Heather Appar (@heather.appar@tetratech.com).

* Required

Contact Information
Complete this section with your contact information.

1. Name *
Enter your answer

2. Title *
Enter your answer

3. Email Address *
Enter your answer

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Action Name:	Warming and Cooling Centers										
Description of the Problem:	The Town lacks warming and cooling centers. Extreme temperature events, particularly cold weather events, warrant the establishment of appropriate facilities to fill this need.										
Hazard(s) of Concern: Check all that apply	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"><input type="checkbox"/> Dam/Levee Failure</td> <td style="width: 50%; border: none;"><input type="checkbox"/> Flood</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Disease Outbreak</td> <td style="border: none;"><input type="checkbox"/> Infestation and Invasive Species</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Drought</td> <td style="border: none;"><input checked="" type="checkbox"/> Severe Storm</td> </tr> <tr> <td style="border: none;"><input type="checkbox"/> Earthquake</td> <td style="border: none;"><input checked="" type="checkbox"/> Severe Winter Storm</td> </tr> <tr> <td style="border: none;"><input checked="" type="checkbox"/> Extreme Temperature</td> <td style="border: none;"><input type="checkbox"/> Wildfire</td> </tr> </table>	<input type="checkbox"/> Dam/Levee Failure	<input type="checkbox"/> Flood	<input type="checkbox"/> Disease Outbreak	<input type="checkbox"/> Infestation and Invasive Species	<input type="checkbox"/> Drought	<input checked="" type="checkbox"/> Severe Storm	<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Winter Storm	<input checked="" type="checkbox"/> Extreme Temperature	<input type="checkbox"/> Wildfire
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<input type="checkbox"/> Earthquake	<input checked="" type="checkbox"/> Severe Winter Storm										
<input checked="" type="checkbox"/> Extreme Temperature	<input type="checkbox"/> Wildfire										
Description of the Solution:											
Lead Agency:											
Supporting Agencies:											

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Description of the Problem:	The Town lacks warming and cooling centers. Extreme temperature events, particularly cold weather events, warrant the establishment of appropriate facilities to fill this need.	
Hazard(s) of Concern: Check all that apply	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input type="checkbox"/> Flood <input type="checkbox"/> Infestation and Invasive Species <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire
Description of the Solution:	The Town will review available facilities that could fit the needs of warming and cooling centers. Factors to consider will include capacity, access, and backup power. Facilities identified as appropriate locations for warming and cooling centers will have the necessary upgrades made (HVAC, backup power generation) as necessary. Outreach will be conducted on the availability of these locations for sheltering during extreme temperature events.	
Lead Agency:		
Supporting Agencies:		

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Description of the Problem:	The Town lacks warming and cooling centers. Extreme temperature events, particularly cold weather events, warrant the establishment of appropriate facilities to fill this need.	
Hazard(s) of Concern: Check all that apply	<input type="checkbox"/> Dam/Levee Failure <input type="checkbox"/> Disease Outbreak <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input checked="" type="checkbox"/> Extreme Temperature	<input type="checkbox"/> Flood <input type="checkbox"/> Infestation and Invasive Species <input checked="" type="checkbox"/> Severe Storm <input checked="" type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Wildfire
Description of the Solution:	The Town will review available facilities that could fit the needs of warming and cooling centers. Factors to consider will include capacity, access, and backup power. Facilities identified as appropriate locations for warming and cooling centers will have the necessary upgrades made (HVAC, backup power generation) as necessary. Outreach will be conducted on the availability of these locations for sheltering during extreme temperature events.	
Lead Agency:	Town Board and Planning	
Supporting Agencies:	Town Engineer	

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Impact on Critical Facilities/Lifelines:	This project is related to community lifelines in the Town; the project will allow the lifelines to serve as heating/cooling centers as needed.	
Estimated Cost:		
Potential Funding Sources:		
Implementation Timeline:		
Goals Met:		
Benefits:		
Mitigation Action Type: Check all that apply	<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)
CRS Category: Complete if address flooding	<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)

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Impact on Critical Facilities/Lifelines:	This project is related to community lifelines in the Town; the project will allow the lifelines to serve as heating/cooling centers as needed.	
Estimated Cost:	\$25,000+	
Potential Funding Sources:	FEMA Emergency Food and Shelter Program, NYS Climate Smart Grant Program, FEMA HMA (HMGP), Town Budget	
Implementation Timeline:		
Goals Met:		
Benefits:		
Mitigation Action Type: Check all that apply	<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)
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Impact on Critical Facilities/Lifelines:	This project is related to community lifelines in the Town; the project will allow the lifelines to serve as heating/cooling centers as needed.	
Estimated Cost:	\$25,000+	
Potential Funding Sources:	FEMA Emergency Food and Shelter Program, NYS Climate Smart Grant Program, FEMA HMA (HMGP), Town Budget	
Implementation Timeline:	Within 5 years	
Goals Met:	1, 4, 5	
Benefits:	Warming and cooling centers established; resources available to residents during power outages or times of extreme heat/cold	
Mitigation Action Type: Check all that apply	<input checked="" type="checkbox"/> Local Plans and Regulations (LPR) <input checked="" type="checkbox"/> Structure and Infrastructure Project (SIP)	<input type="checkbox"/> Natural Systems Protection (NSP) <input type="checkbox"/> Education and Awareness Programs (EAP)
CRS Category: Complete if address flooding	<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)

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Goals Met:	1, 4, 5	
Benefits:	Warming and cooling centers established; resources available to residents during power outages or times of extreme heat/cold	
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CRS Category: Complete if address flooding	<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)

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Impact on Socially Vulnerable Populations:	This project will provide additional services to socially vulnerable and/or underserved communities by providing heating/cooling centers to use during power outages and extreme temperature events.		
Impact on Future Development:			
Climate Change Considerations:			
Priority: Check one	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low

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Impact on Socially Vulnerable Populations:	This project will provide additional services to socially vulnerable and/or underserved communities by providing heating/cooling centers to use during power outages and extreme temperature events.		
Impact on Future Development:	No known impacts on future development		
Climate Change Considerations:			
Priority: Check one	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low

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Impact on Socially Vulnerable Populations:	This project will provide additional services to socially vulnerable and/or underserved communities by providing heating/cooling centers to use during power outages and extreme temperature events.		
Impact on Future Development:	No known impacts on future development		
Climate Change Considerations:	The project does not directly address anticipated impacts of climate change; however, projections are showing increased temperatures which can lead to an increase in the need for heating/cooling centers.		
Priority: Check one	<input checked="" type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low

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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	Provides sheltering
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?	0	-
Cost-Effectiveness	Are the costs to implement the project or initiative commensurate with the benefits achieved?	1	Benefits outweigh the costs
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	There is political support for this project.
Legal	Does the jurisdiction have the authority to implement the action?	1	The Town has authority to implement the project.
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	The Town needs grant funding to complete project.
Environmental	What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?	0	-
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.	1	This project will provide additional services to socially vulnerable and/or underserved communities by providing heating/cooling centers to use during power outages and extreme temperature events.

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Criteria	Description	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
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	Extreme Temperature, Severe Weather, Severe Winter Weather
Climate Change	Does the action incorporate climate change projections for the jurisdiction? Is the action designed to withstand/address long-term conditions?	0	The project does not directly address anticipated impacts of climate change; however, projections are showing increased temperatures which can lead to an increase in the need for heating/cooling centers.
Timeline	Can the action be completed in less than 5 years (within the planning horizon of the HMP)?	1	Within 5 years
Community Lifelines	Does this project benefit community lifelines?	1	This project is related to community lifelines in the Town; the project will allow the lifelines to serve as heating/cooling centers as needed.
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	-
Total		10	
Priority (High/Med/Low)		High	

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Helpful Information

Mitigation Worksheet Instructions

Mitigation Catalog

Problem Statements

Action Worksheet Examples

Types of Mitigation Actions

FEMA Grant Priorities



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Project Schedule and Next Steps

Upcoming meetings and key milestones throughout the HMP update process

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Next Steps



Item	Due Date
Mitigation Action Workshop	TODAY!
Mitigation actions	Friday, March 1 st
Finalize annexes	Friday, March 29 th
Draft plan presentation (virtual)	April 2024
Adopt HMP	June-July 2024



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Questions?

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Thank You!

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(973) 630-8046 | heather.apgar@tetrattech.com

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