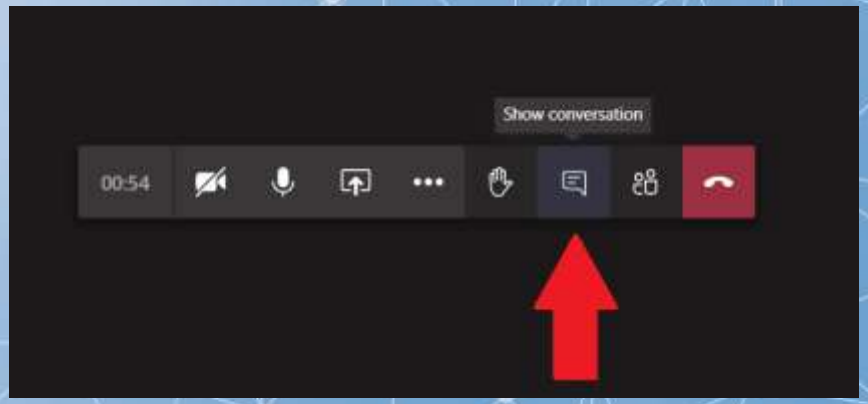
Warren County, New York
Hazard Mitigation Plan – 2023 Update

Mitigation Workshop| March 15, 2023 | 10:00 – 11:30 AM

WELCOME!
If you are attending the webinar on your computer, please add your name, title, and organization(s) to the chat box.

This will assist in our attendance documentation.



Agenda

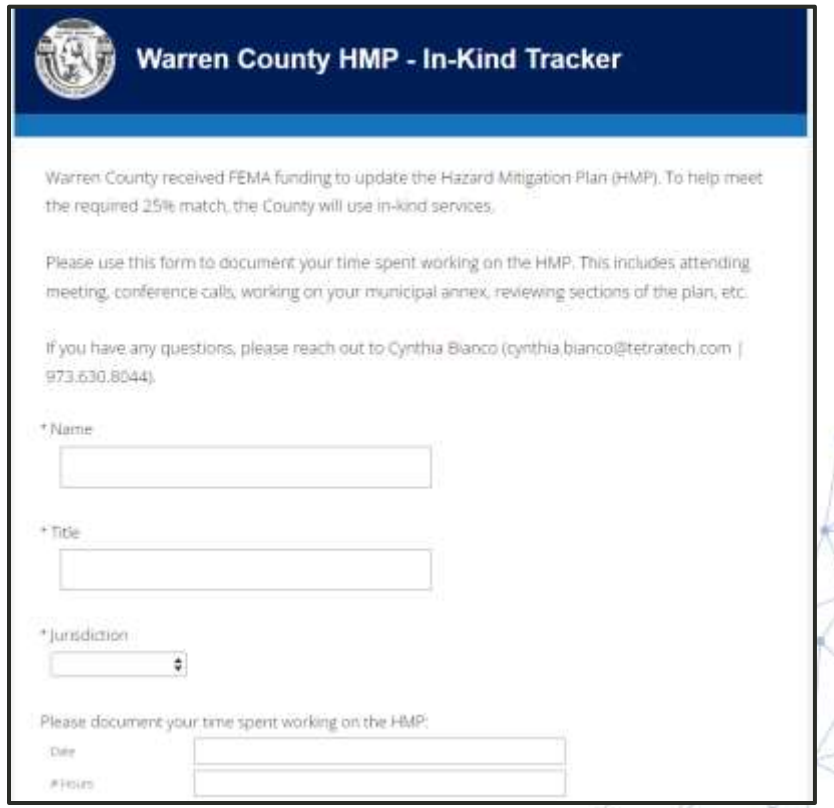
1. Introductions
2. In-Kind Tracking Reminder
3. Hazard Mitigation Refresher
4. Project Status
5. Developing Mitigation Strategies – NYS DHSES, FEMA
6. Updating Previous Actions
7. Using Mitigation Development Worksheets to Select Your Actions
8. Action Worksheets
9. Next Steps

In-Kind Services Tracking

- Use on-line survey: *https://www.surveymonkey.com/r/WarrenNYHMPInKind*
- Submit form to Jim Lieberum at jiml@warrenswcd.org

Name of Team Member:_____

Correspondence Type	Meeting Name, Municipality	Date	Start Time	End Time	# of Hours	Agenda/ Sign In?	Notes (include meeting topic, how HMP was discussed, etc.)
Meeting	Chiefs and Fire Advisory Board Meeting					Yes – sign-in	Discussed the HMP update
Meeting	Town of ?? Board Meeting						Discussed the HMP update
Phone Call	Town of ??phone call					No	Spoke with the Town about the HMP process and their responsibilities in participating
Meeting	Town of ?? Board Meeting					Yes - agenda	



Hazard Mitigation – What is it?

- Plan for the future
- Recovery quickly after disasters
- Identify mitigation actions
- Access to FEMA funding

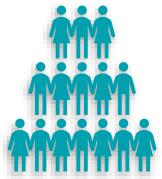
Why are we spending valuable time on this? Hazard Mitigation Works!

- For every $1 spent on hazard mitigation, saves the U.S. $6 in future disaster costs!
- More than just money – it could prevent 600 deaths and 1 million non-fatal injuries!

Our Schedule

Task	Date
Data Collection	Complete
Update Hazard Profiles	Complete
Risk Assessment	Complete
Risk Results Presentation	Complete
Mitigation Strategy Workshop	March 15, 2023– TODAY!
Review Draft Plan	May 2023
Public Review of Plan	June/July
Submit to NYSDHSES	July/August
Submit to FEMA	September/October 2023

Public Outreach and Engagement



- Check out the HMP website - https://www.warrencountynewyorkhmp.com/
- Post links on social media and department/agency websites
- Citizen, stakeholder and neighboring county surveys distributed, as of 3/10/23:
  - Citizen Survey: 71 responses
  - Stakeholder Survey: 9 responses
  - Neighboring County Survey: 1 response
  - *All responses relating to your jurisdiction are included in your updated Annex*

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Mitigation Strategy

2023 HMP Hazards of Concern

- Disease Outbreak
- Earthquake
- Extreme Temperatures
- Flood
- Dam Failure
- Infestation and Invasive Species
- Severe Storm (Windstorm, Thunderstorm, Hail, Tornado)
- Severe Winter Weather (Heavy Snow, Blizzards, Ice Storms)
- Wildfire

A community must include at least one mitigation action for each hazard that is deemed to have a significant impact on the community.

For hazards with minimal or no perceived impact to a community, a statement must be included in the annex to indicate why the community has not address any hazards with a mitigation action.

Risk Reduction Examples

To Reduce Risk:

- *Manipulate the Hazard*:
  - Structural flood control
- *Reduce/Eliminate Exposure*:
  - Property acquisition
- *Reduce Vulnerability*:
  - Retrofit existing structures
- *Increase Capability*:
  - Preparation, technical assistance, planning, enforcement

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
- 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 of the plan. **TWO of your actions must be detailed on Action Worksheets**

FEMA Mitigation Action Types

Plans and regulations include government authorities, policies, or codes that encourage risk reduction, such as building codes and state planning regulations. This may also include planning studies.

Structure and infrastructure projects involve modifying existing structures and infrastructure or constructing new structures to reduce the impact of hazards.

Natural systems protection projects minimize losses while also preserving or restoring the function of natural systems.

Education and awareness programs include long-term, sustained programs to inform and educate citizens and stakeholders about hazards and mitigation options. This category could also include training.

NYS Requirements for Mitigation Strategy Update

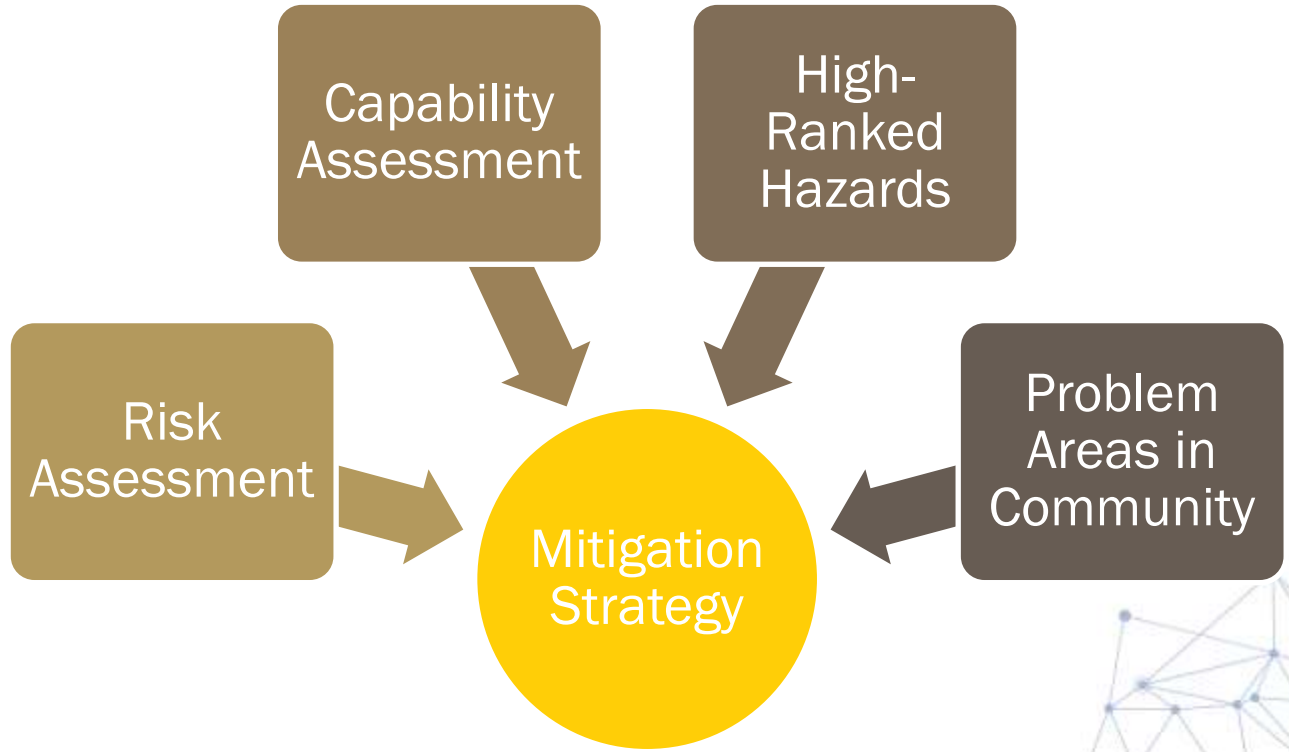
- Need to develop at least 2 Action Worksheets
- If jurisdiction has a regulatory floodplain then one worksheet must address flooding
  - [if the jurisdiction has Repetitive and Severe Repetitive Loss Properties - it is good practice to include action with details (street or neighborhood names)]
- Critical facilities in the 100-year floodplain – must be protected to the 500-year flood event
  - If already protected, we must note how
  - If not protected, a mitigation action must be developed
- Plan for Climate Change and propose actions to address

NYS Requirements for Mitigation Strategy Update

- Proposed actions MUST have specific information identified including:
  - Project lead
  - Estimated cost
  - Timeline
  - Whether the action involves a critical facility
- All required items are identified within the proposed action table. Each cell of the table MUST be filled out!

Connecting to the Mitigation Strategy

- Need a clear connection between vulnerability and proposed mitigation actions.
- Capability assessment provides insight into challenges/opportunities for the mitigation strategy as well.
- Provides the factual basis for activities proposed in the mitigation strategy.



The roadmap to a strong mitigation strategy

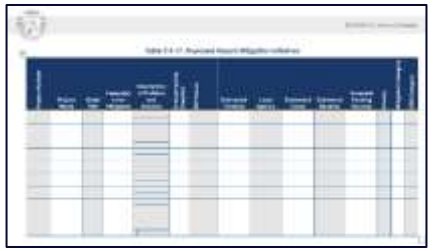
Hazards of Concern:

High Ranked Hazards

Problem Areas:

Mitigation Development Worksheets

Mitigation Initiatives Table



Action Worksheets

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?	Yes ☐	No ☐	
Is the critical facility located in the 1% annual chance flood area?	Yes ☐	No ☐	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:		Estimated Benefits (losses avoided):	
Useful Life:		Goals Met:	
Estimated Cost:		Mitigation Action Type:	
Plan for Implementation			
Prioritization:		Desired Timeframe for Implementation:	
Estimated Time Required for Project Implementation:		Potential Funding Sources:	
Responsible Organization:		Local Planning Mechanisms to be Used in Implementation if any:	
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	$0	Current problem continues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

What are we focusing on for our mitigation strategy?

- Stronger connection between the risk assessment and mitigation strategy
  - At least one action is needed to address each hazard of concern
- More specific actions
  - Specific projects, in specific locations, in a specific timeframe
- Diverse actions
  - Include a variety in the types of actions

Update the Mitigation Strategy

- Review our Goals and Objectives
- Start with Problems (many identified on your Worksheets)
  - Areas that have been impacted by hazard events
  - Recurring issues
  - Critical/Lifeline facilities in the floodplain
  - RL/SRL properties need mitigating
  - Evacuation routes and sheltering needs

Update the Mitigation Strategy

- Identify New Mitigation Actions/Projects
- Modify 'Carry-Over' projects from the previous HMP -more specific or address different aspect of original problem

Quality Over Quantity!!

Making Previous Actions More Specific

Why we must update our actions…

- Actions in the previous plan often were general and did not include detailed information.
- Detailed information is needed to support FEMA grant applications for funding support.
- Focus on updating previous actions to include the necessary level of detailed information.
- If detailed information is not available, note a phase in the action that will gather this information such as an engineering study or feasibility assessment.
- Use the same level of detail for new actions as well!

Example: Previous problem and action

- Problem: Critical facilities require backup power.
- Solution: Acquire backup power for critical facilities.

Example: Improved problem and action

- Problem: Town Hall lacks a backup power source. The Town Hall houses the Emergency Operations Center and also can serve as a backup shelter. Lack of power results in a breakdown of continuity of operations and prevents the Town Hall from providing critical services during a hazard event.
- Solution: The Town Engineer will work with the Office of Emergency Management to research and purchase the appropriately sized backup generator for the Town Hall. The Town DPW will install the backup generator and necessary electrical components and will be responsible for testing and upkeep of the generator after installation.

Example: EVEN MORE Improved problem and action

- Problem: Town Hall lacks a backup power source. The Town Hall houses the Emergency Operations Center and also can serve as a backup shelter for approximately 100 people. Lack of power results in a breakdown of continuity of operations and prevents the Town Hall from providing critical services during a hazard event.
- Solution: The Town Engineer will work with the Office of Emergency Management to research and purchase a 75 kW generator for the Town Hall. The Town DPW will install the backup generator on the roof of the Town Hall and necessary electrical components and will be responsible for testing and upkeep of the generator after installation.

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Mitigation Development Worksheet

Use Your Worksheet to Identify Mitigation Actions

*Note: *Adaptive capacity was assumed Moderate for all hazards.*

Problem Statement Development

Utilizing the results gathered to date (i.e., risk assessment, capability assessment, identified problem areas, 2017 mitigation strategy), please review the identified problems and potential solutions and add anything that may be missing to inform your mitigation strategy development.

Risk Assessment

What is your hazard concern of greatest concern? Refer to your hazard ranking results on page 1 (ex: stormwater flooding, falling trees, power loss, etc.). Do you have any projects in mind to address that hazard?

Problem / High-Ranked Hazards	Solution

Critical Facilities - Backup Power

Please list critical facilities that require backup power. If you have specifics (size of the generator, potential cost, etc.), please provide that information as well.

Problem	Solution

Culverts - Undersized/In Need of Upgrade

Please indicate the location of any culverts or stormwater components in your community that are undersized or are damaged from past flood events. Then note if you would like to add a project to address any of these locations.

Problem	Solution

Flood Protection – Elevation or Buyout

Please identify any **repetitive loss areas**, homes, or neighborhoods that would benefit from elevation or buyout to prevent future flood damages. Then identify potential projects to provide flood protection (elevation, buyout, etc.)

Problem	Solution

Infrastructure Protection

Please identify roads and other infrastructure that needs protection from flooding, storms, etc. Provide any projects where you would like to include protection measures (elevate roadway, harden infrastructure, etc.)

Problem	Solution

Outreach Projects

Please identify gaps in public awareness regarding hazards and identify any outreach projects that you would like to include in your mitigation strategy.

Problem	Solution

Other Projects

Please identify other projects that you have in mind after reviewing your problem statements, past actions, risk assessment results, and the mitigation catalog.

Problem	Solution

How do you fill in the Worksheet?

The worksheet asks a series of questions to help you think about vulnerabilities within your community.

- Critical Facilities/Lifelines – backup power
- Critical Facilities/Lifelines – flood protection
- Culverts – undersized/in need of upgrades
- Flood Protection – elevations/buyouts; think about the RL/SRL properties – if you have RL/SRLs you need an action related to this
- Infrastructure Protection – what needs protection from flooding, storms, etc.?
- Anything else?

How do you fill in the Worksheet?

- Review the pre-populated information on your worksheet
  - Information from worksheets submitted to date
  - Input from public/stakeholder surveys
  - Risk assessment results
- Determine the problems that you will pursue solutions for
- Add as much detail as possible to the problems and develop detailed solutions
- Return worksheet to your Tetra Tech planner for discussion during your annex development meeting

Schedule your meeting with your Tetra Tech planner ASAP!

TETRA TECH

Proposed Action Table

Proposed Action Table

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Muni-001				**Problem**: **Solution**:										
2020-Muni-002				**Problem**: **Solution**:										
2020-Muni-003				**Problem**: **Solution**:										
2020-Muni-004				**Problem**: **Solution**:										
2020-Muni-005				**Problem**: **Solution**:										

Action Worksheets

Action Worksheets

- Each jurisdiction must develop at least 2 Action Worksheets
- Should also develop additional Action Worksheets for projects you plan to apply for FEMA funding support for within the next 5 years
- Not every action requires an Action Worksheet to be developed but the same sort of information about those actions are still needed in the Proposed Actions table of the annex
- If jurisdiction has a regulatory floodplain then one worksheet must address flooding
- Critical facilities in the 100-year floodplain – must be protected to the 500-year flood event
- Plan for Climate Change and propose actions to address

Action Worksheet

- Description of the Problem
  - What is the problem?
  - What is the risk?
  - Where is the problem occurring?
  - Who is the problem impacting?
  - Have there been past damages?
  - How frequently does the problem occur?

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?	Yes ☐	No ☐	
Is the critical facility located in the 1% annual chance flood area?	Yes ☐	No ☐	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:		**Estimated Benefits (losses avoided):**	
Useful Life:		**Goals Met:**	
Estimated Cost:		**Mitigation Action Type:**	
Plan for Implementation			
Prioritization:		**Desired Timeframe for Implementation:**	
Estimated Time Required for Project Implementation:		**Potential Funding Sources:**	
Responsible Organization:		**Local Planning Mechanisms to be Used in Implementation if any:**	
Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			

Action Worksheet

- Description of the Solution
  - How do you propose to solve or mitigate the problem?
  - What are the design specifications?
    - Height and length of a floodwall
    - kW for backup generators
    - Number of structures to be bought out or elevated
    - Etc.
  - Who is responsible for what aspects of the project?

Action Worksheet					
Project Name:					
Project Number:					
Risk / Vulnerability					
Hazard(s) of Concern:					
Description of the Problem:					
Action or Project Intended for Implementation					
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Useful Life:		**Goals Met:**			
Estimated Cost:		**Mitigation Action Type:**			
Plan for Implementation					
Prioritization:		**Desired Timeframe for Implementation:**			
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Three Alternatives Considered (including No Action)					
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**		
	No Action	$0	Current problem continues		
Progress Report (for plan maintenance)					
Date of Status Report:					
Report of Progress:					
Update Evaluation of the Problem and/or Solution:					

Action Worksheet

- Level of Protection
  - What level event is the project being designed to protect to?
    - For flood protection: 100-year flood, 500-year flood
    - For stormwater improvements: 5 year, 10 year rain events
  - If not a specific level, include brief description of what protections are
    - For generators: Prevents power loss

Action Worksheet				
Project Name:				
Project Number:				
Risk / Vulnerability				
Hazard(s) of Concern:				
Description of the Problem:				
Action or Project Intended for Implementation				
Description of the Solution:				
Is this project related to a Critical Facility?		Yes ☐	No ☐	
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Alternatives:	**Action**	**Estimated Cost**	**Evaluation**	
	No Action	$0	Current problem continues	
Progress Report (for plan maintenance)				
Date of Status Report:				
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Update Evaluation of the Problem and/or Solution:				

Action Worksheet

- Estimated cost
- What will the project cost?
- If project includes phases or components, what will each phase or component cost?
  - New generator: $25K, elevation platform for generator: $1K

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
Is this project related to a Critical Facility?	Yes ☐	No ☐	
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Level of Protection:		**Estimated Benefits (losses avoided):**	
Useful Life:		**Goals Met:**	
Estimated Cost:		**Mitigation Action Type:**	
Plan for Implementation			
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Progress Report (for plan maintenance)			
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Update Evaluation of the Problem and/or Solution:			

Action Worksheet

- Estimated Benefits

- Provide a description of the estimated benefits, either quantitative and/or qualitative
- Identify the benefits that implementation of this project will provide. If dollar amounts are known, include them. If dollar amounts are unknown or are unquantifiable, describe the losses that will be avoided.

Action Worksheet				
Project Name:				
Project Number:				
Risk / Vulnerability				
Hazard(s) of Concern:				
Description of the Problem:				
Action or Project Intended for Implementation				
Description of the Solution:				
Is this project related to a Critical Facility?		Yes ☐	No ☐	
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Alternatives:	**Action**	**Estimated Cost**	**Evaluation**	
	No Action	$0	Current problem continues	
Progress Report (for plan maintenance)				
Date of Status Report:				
Report of Progress:				
Update Evaluation of the Problem and/or Solution:				

Action Worksheet

- Prioritization
- High, Medium, or Low
- Use the second page of Action Worksheet to evaluate each action and assist in the determination of priority (to be discussed shortly)

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
Description of the Problem:			
Action or Project Intended for Implementation			
Description of the Solution:			
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Useful Life:		**Goals Met:**	
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Responsible Organization:		**Local Planning Mechanisms to be Used in Implementation if any:**	

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
	No Action	$0	Current problem continues

Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet

- Responsible Organization
- Identify the lead organization/department/individual for the project
- Identify any supporting organizations/departments/ individuals for the project.

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
Hazard(s) of Concern:			
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Action or Project Intended for Implementation			
Description of the Solution:			
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Useful Life:		**Goals Met:**	
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Responsible Organization:		**Local Planning Mechanisms to be Used in Implementation if any:**	

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
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Progress Report (for plan maintenance)	
Date of Status Report:	
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Update Evaluation of the Problem and/or Solution:	

Action Worksheet

- Estimated Time Required for Project Implementation
- Provide the estimated time required to complete the project from start to finish.

Action Worksheet			
Project Name:			
Project Number:			
Risk / Vulnerability			
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Responsible Organization:		**Local Planning Mechanisms to be Used in Implementation if any:**	

Three Alternatives Considered (including No Action)			
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**
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Progress Report (for plan maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Action Worksheet

- Alternatives
- Three alternatives are needed for each action worksheet.
  - 1st alternative can be no action
  - 2nd and 3rd alternatives – include estimate cost and a description of the pros/cons of the alternatives

Action Worksheet				
Project Name:				
Project Number:				
Risk / Vulnerability				
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Action or Project Intended for Implementation				
Description of the Solution:				
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Three Alternatives Considered (including No Action)				
Alternatives:	**Action**	**Estimated Cost**	**Evaluation**	
	No Action	$0	Current problem continues	
Progress Report (for plan maintenance)				
Date of Status Report:				
Report of Progress:				
Update Evaluation of the Problem and/or Solution:				

Evaluation of Actions

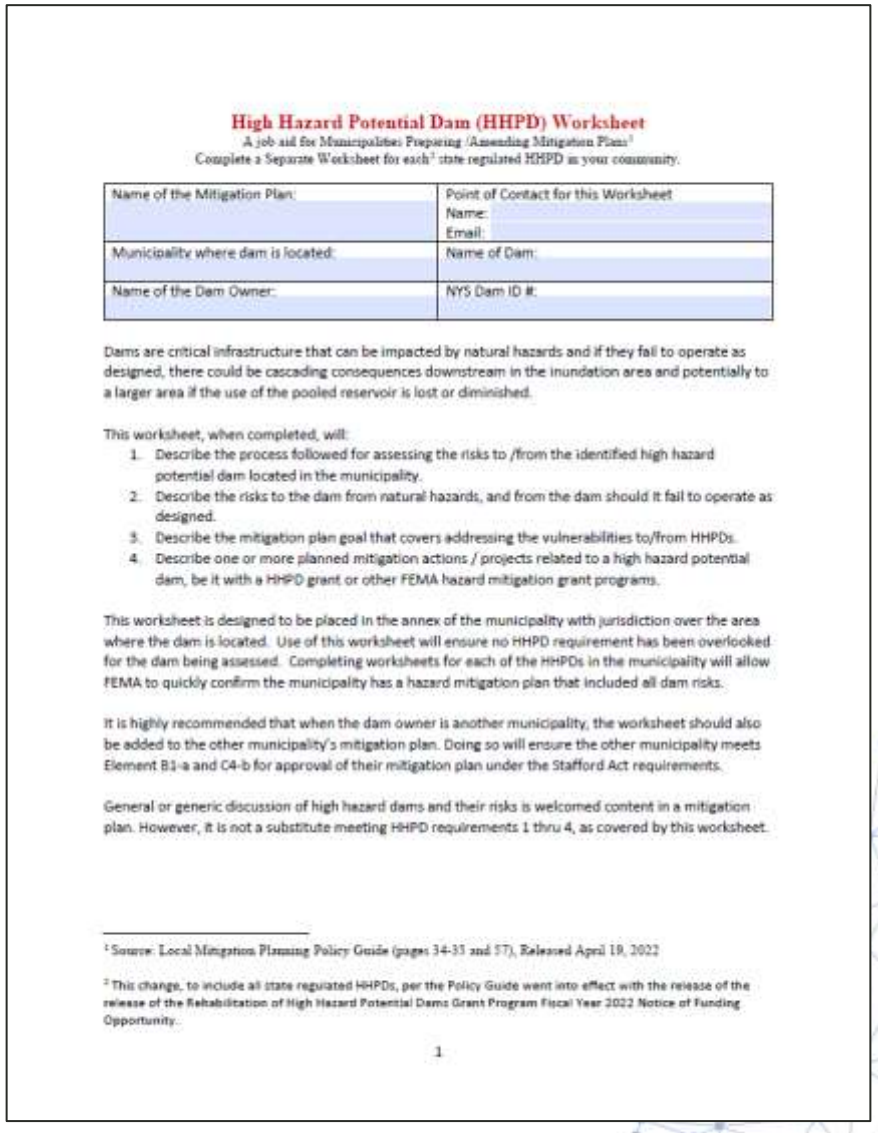
- Consider the benefits and costs
- Consider the implementation timeline
- Consider the areas/problems of greatest need
- Consider the funding sources
- High/Medium/Low priority

1 = highlight effective or feasible
0 = neutral
-1 = ineffective or not feasible

Evaluation and Prioritization		
Project Name:		
Project Number:		
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Agency Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)		

Important Actions

- **Municipalities with high hazard potential dams with a condition rating of unsafe or unsound** should include an action to address the deficiencies, using the High Hazard Potential Dam (HHPD) grant program for funding.
- **Municipalities with repetitive loss properties** need to include an action to address repetitive loss (elevation and/or acquisition). Tetra Tech has emailed the communities that have repetitive loss properties.



High Hazard Potential Dam (HHPD) Worksheet

A job aid for Municipalities Preparing /Amending Mitigation Plans[1]

Complete a Separate Worksheet for each[2] state regulated HHPD in your community.

Name of the Mitigation Plan:	Point of Contact for this Worksheet Name: Email:
Municipality where dam is located:	Name of Dam:
Name of the Dam Owner:	NYS Dam ID #:

Dams are critical infrastructure that can be impacted by natural hazards and if they fail to operate as designed, there could be cascading consequences downstream in the inundation area and potentially to a larger area if the use of the pooled reservoir is lost or diminished.

This worksheet, when completed, will:

1. Describe the process followed for assessing the risks to /from the identified high hazard potential dam located in the municipality.
2. Describe the risks to the dam from natural hazards, and from the dam should it fail to operate as designed.
3. Describe the mitigation plan goal that covers addressing the vulnerabilities to/from HHPDs.
4. Describe one or more planned mitigation actions / projects related to a high hazard potential dam, be it with a HHPD grant or other FEMA hazard mitigation grant programs.

This worksheet is designed to be placed in the annex of the municipality with jurisdiction over the area where the dam is located. Use of this worksheet will ensure no HHPD requirement has been overlooked for the dam being assessed. Completing worksheets for each of the HHPDs in the municipality will allow FEMA to quickly confirm the municipality has a hazard mitigation plan that included all dam risks.

It is highly recommended that when the dam owner is another municipality, the worksheet should also be added to the other municipality's mitigation plan. Doing so will ensure the other municipality meets Element B1-a and C4-b for approval of their mitigation plan under the Stafford Act requirements.

General or generic discussion of high hazard dams and their risks is welcomed content in a mitigation plan. However, it is not a substitute meeting HHPD requirements 1 thru 4, as covered by this worksheet.

[1] Source: Local Mitigation Planning Policy Guide (pages 34-35 and 57), Released April 19, 2022

[2] This change, to include all state regulated HHPDs, per the Policy Guide went into effect with the release of the release of the Rehabilitation of High Hazard Potential Dams Grant Program Fiscal Year 2022 Notice of Funding Opportunity.

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Schedule

- Complete Mitigation Development Worksheet and Schedule Meeting with your Tetra Tech Planner Before March 31st
- Work with Tetra Tech Planner to Complete Actions and Annex following meeting
- Draft Plan to Steering Committee by middle of May
- Final draft plan to NYS DHSES and FEMA – August/September 2023

Questions?

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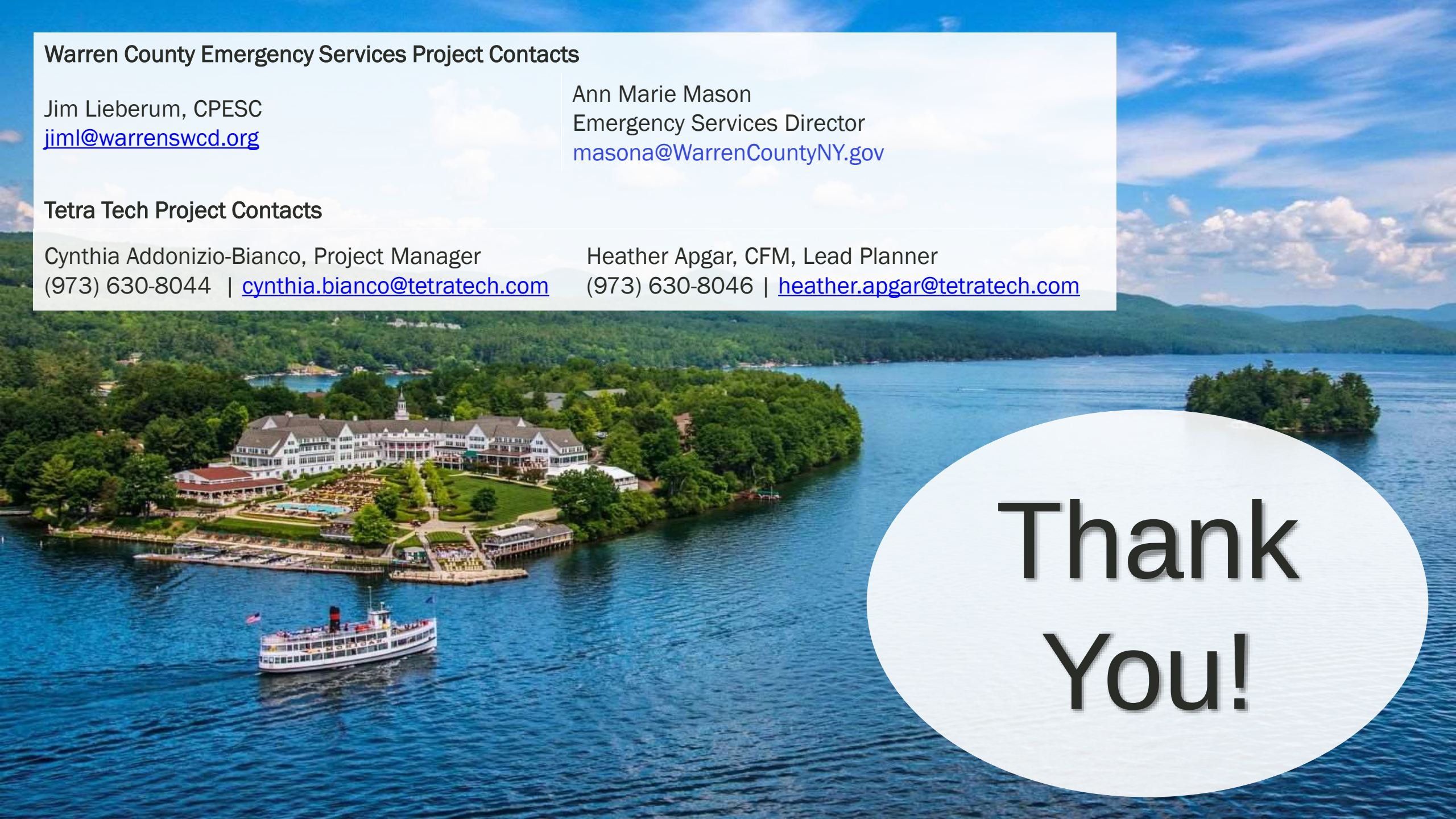

Thank You!