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## Agenda

1	Welcome and Introductions	7	Updating Sections of the HMP
2	Hazard Mitigation Overview	8	Staying Engaged
3	Planning Process	8	Jurisdictional Annexes
4	Why Participate?	8	Wrap-Up
5	Schedule		
6	Identifying Hazards of Concern		



A graphic of a clipboard with a checklist. The clipboard has a black clip at the top and a brown border. The checklist has several lines of text, with three red checkmarks and one red 'X' visible.

 TETRA TECH

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## Introductions

- Tell us...
  - What's your name?
  - Where you are from?
  - What is your mitigation experience?
  - What do you want to focus on during this process or what is your area of expertise?
  - What are your *resilience* concerns for Putnam County?



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## Hazard Mitigation Planning and Overview

Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

-or-

Any action taken to reduce future disaster losses

**"provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability..." (CFR).**



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## Key Components of Hazard Mitigation

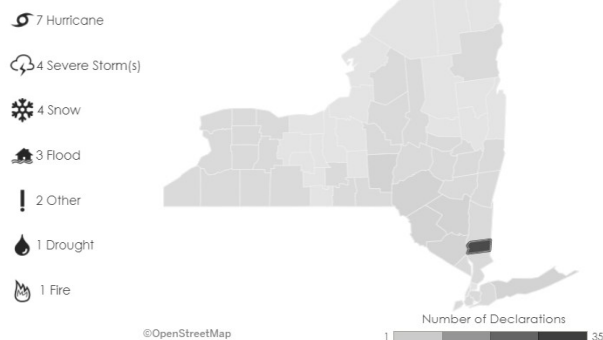
**3 KEY COMPONENTS**  
THAT CONTRIBUTE  
TO NATURAL HAZARD  
MITIGATION PLANNING



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## Hazard Mitigation – What's at Risk?

- FEMA Disaster Declaration history in Putnam County



Year of Declaration	Date	Title	Disaster Number
1965		WATER SHORTAGE	204
1971		SEVERE STORMS & FLOODING	311
1976		STORMS, RAINS, LANDSLIDES & FLOODING	457
1987		SEVERE WINTER STORM	801
1993		SEVERE WINTER STORM	3107
1996		BLIZZARD OF '96 (SEVERE SNOW STORM)	1083
1999		SEVERE STORMS AND FLOODING	1095
		HURRICANE FLOYD EMERGENCY DECLARATIONS	3149
		HURRICANE FLOYD MAJOR DISASTER DECLARATIONS	1004
2000		WEST NILE VIRUS	3155
2001		FIRES AND EXPLOSIONS	1391
2003		POWER OUTAGE	3186
		SNOW	3184
2004		SEVERE STORMS AND FLOODING	1534
2005		HURRICANE KATRINA EVACUATION	3202
		SEVERE STORMS AND FLOODING	1589
2007		SEVERE STORMS AND INLAND AND COASTAL FLOODING	1692






Year of Declaration	Date	Title	Disaster Number
2005		SEVERE STORMS AND FLOODING	1334
		HURRICANE KATRINA EVACUATION	3202
		SEVERE STORMS AND FLOODING	1509
		SEVERE STORMS AND INLAND AND COASTAL FLOODING	1692
2007		SEVERE STORMS AND INLAND AND COASTAL FLOODING	3328
2008		SEVERE WINTER STORM	4070
2011		HURRICANE IRIS	3351
2012		HURRICANE SANDY	4083

Source: NYSDHSES MitigateNY <https://mitigateny.availabs.org/>

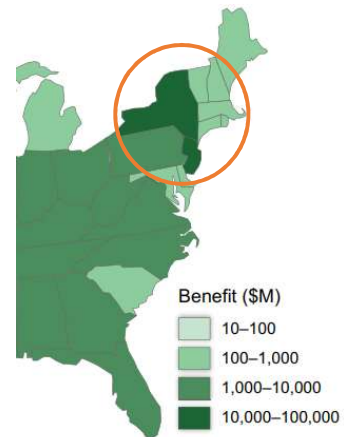
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## Hazard Mitigation Works!

- According to the January 2019 National Institute of Building Sciences Natural Hazard Mitigation Saves: 2018 Interim Report, federal mitigation grants save \$6 for every \$1 spent!

National Benefit-Cost Ratio Per Peril <small>*BCR numbers in this study have been rounded</small>		Federally Funded
<b>Overall Hazard Benefit-Cost Ratio</b>		<b>6:1</b>
 <b>Riverine Flood</b>		<b>7:1</b>
 <b>Hurricane Surge</b>		Too few grants
 <b>Wind</b>		<b>5:1</b>
 <b>Earthquake</b>		<b>3:1</b>
 <b>Wildland-Urban Interface Fire</b>		<b>3:1</b>

Mitigation saves in every in state!  
New York State has saved at least  
\$10 billion in benefits.



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## Why Update?

- The mitigation plan update will:
  - Help the County prepare for and mitigate the effects of disasters
  - Continue to allow the county and participating partners to be eligible for pre- and post-disaster mitigation funding
  - Support CRS participation/rating of municipalities
- What is at risk in Putnam County?

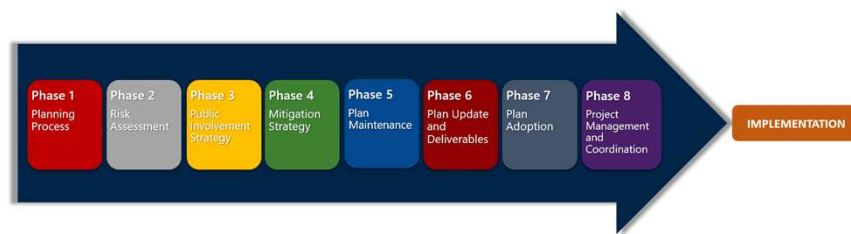
Hazard	Losses
Avalanche	\$0
Coastal Storm	\$0
Cold wave	\$0
Drought	\$0
Earthquake	\$0
Flooding	\$1.9 million
Hail	\$0
Heat Wave	\$0
Hurricane	\$633,000
Ice Storm	\$0
Landslide	\$0
Lightning	\$575,000
Snow Storm	\$6 million
Tsunami/Seiche	\$0
Tornado	\$350,000
Volcano	\$0
Wildfire	\$0
Wind	\$2.43 million
<b>TOTAL</b>	

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## Hazard Mitigation Planning Process

- What is hazard mitigation?
- How does this support resiliency and recovery?
- Why update the plan?
- What is the process?

- ✓ Authorized by the Disaster Mitigation Act of 2000
- ✓ Provides an overview of the impacts of natural hazards on communities
- ✓ Provides a roadmap to reducing the impact of these hazards
- ✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre-Disaster Mitigation Funding
- ✓ 5 year updates required to maintain eligibility



## Putnam County and DMA 2000

The mitigation plan update will:

- Help the County prepare for and mitigate the effects of disasters
- Continue to allow the county and participating partners to be eligible for pre- and post-disaster mitigation funding
- Support CRS participation/rating of municipalities

A **Local Mitigation Plan** demonstrates the jurisdiction's commitment to reducing risk and serves as a guide for decision makers as they commit resources to minimize the effects of natural hazards.

## Requirements for Local Mitigation Plan Updates

- Include the opportunity for public comment and for relevant agency and stakeholder involvement
- **Updated** Risk Assessment - a factual basis for activities proposed in the Mitigation Strategy section include:
  - Overview of hazards (type, location, probability)
  - Vulnerability analysis (impact on buildings, infrastructure, economy, development trends)
  - Multiple jurisdictions (specific to each town/borough/city)
- **Updated** Mitigation Strategy – a blueprint for reducing losses identified in the risk assessment
- Plan Maintenance and Adoption Processes

## NYS DHSES Requirements

- Establish Jurisdictional Teams
- Assess Critical Facilities
- **Plan for Displaced Residents**
  - Intermediate (Temporary Housing) and Long-Term (Permanent Housing)
- **Plan for Evacuation and Sheltering**
  - Document Past Mitigation Accomplishments
  - Include Jurisdictional Annexes
  - Develop Mitigation Actions (minimum of 2 projects)
  - Plan for Climate Change



## What is the focus for the 2020 Update?

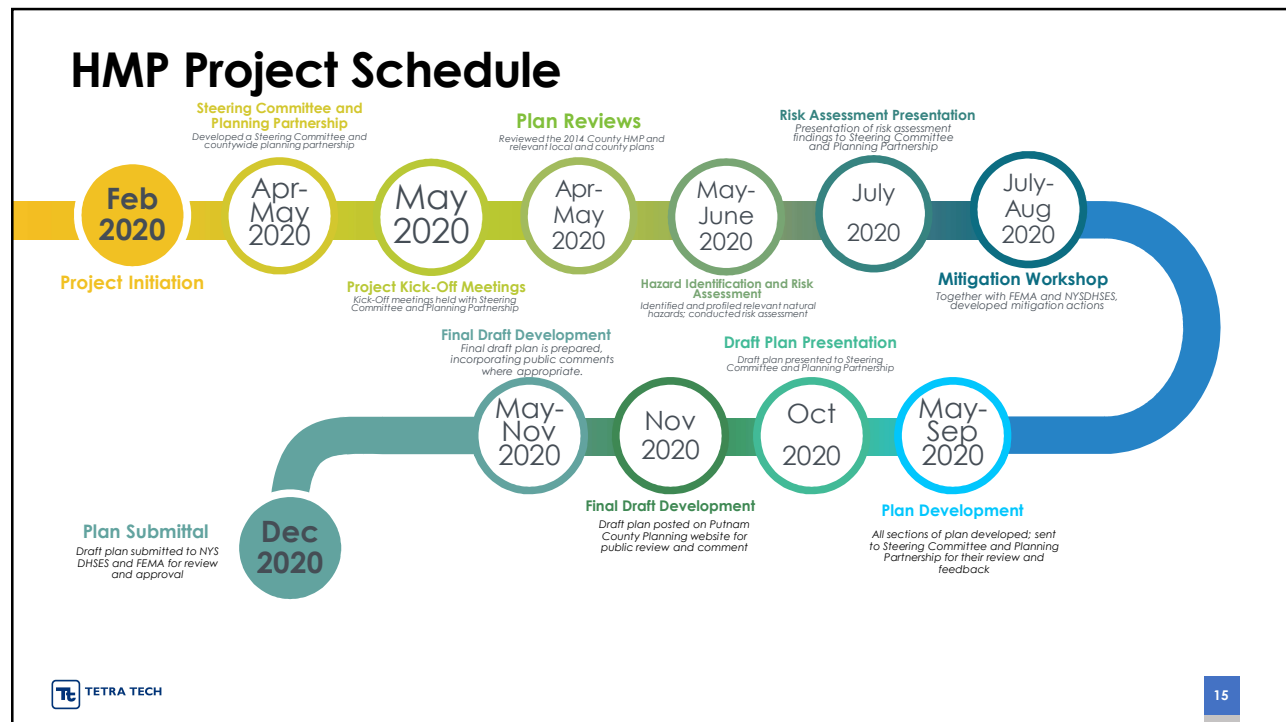
- Clearer communication of risk
- Stronger connection between the risk assessment and mitigation strategy (e.g. projects)
- Integration of the HMP into local and county plans, policies, procedures, and decision making



## Schedule

### • Overview and Milestones

- **Planning Process**
  - Steering Committee Kick-Off – TODAY!
  - Planning Partnership Kick-Off – May 27th
  - Currently working on reviewing plans, studies, and codes/ordinances
- **Update Risk Assessment**
  - Data collection is underway; Confirm building and critical facility inventory
  - Confirm hazards of concern; once confirmed, begin vulnerability assessment for each
- **Public Involvement Strategy** – ongoing throughout the planning process
- **Mitigation Strategy**
  - Begin working with the municipalities after the Planning Partnership kick-off
  - Mitigation Strategy Workshop with FEMA and NYS DHSES – TBD
- **Draft Plan to Steering Committee** by late summer/early fall
- **Final draft plan to NYS DHSES and FEMA** by December 2020



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## Organizing the Planning Team

- County Lead (Bureau of Emergency Services)
- Contract Consultant (Tetra Tech)
- Steering Committee
- Planning Committee – that's you!
- Stakeholders
- General Public

designed by freepik

An effective planning process is essential in developing and maintaining a good plan.

44 CFR §201.4(b)

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## Municipal Planning Partnership

- All municipalities are encouraged to participate (and continue to be covered by the Countywide HMP)
- FEMA has greatly expanded their scrutiny of “participation”...

### ***Municipalities are required to actively participate***

- All municipalities who wish to join the update process must formally provide a letter of intent to participate.

#### Letters of Intent to Participate

Your Letter of Intent to Participate for your community is due ASAP  
to Bob Lipton

Copies will be included in the HMP.

## How Do You Participate?

- Attend planning partnership meetings/workshops
- Provide data and information in a timely manner
- Support public and stakeholder outreach in your jurisdiction
- Assist with the development of your jurisdictional annex
- Review and provide feedback on Draft and Final Plan documents
- Facilitate the adoption process – governing body must pass an Adoption Resolution
- Implement and Maintain the Plan



## Assemble Your Mitigation Team!

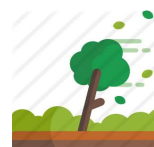
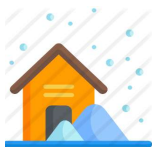
Who should help with developing your annex?

- NFIP Floodplain Administrator
- Building Code Official
- Engineer
- Land Use Planner
- Clerk
- Mayor/Administrator
- Municipal CFO/Fiscal Representative
- Public Works Superintendent/Director
- Police/Fire Official



## Hazards of Concern for Putnam County

- Review of Hazards of Concern for the 2020 Update:
  - Earthquake
  - Extreme Temperature
  - Flood (riverine, coastal)
  - Land Failure (landslide, subsidence/sinkholes)
  - Severe Storm (hail, wind, lightning, thunderstorm, tornado, hurricane, tropical storm)
  - Severe Winter Storm (cold, sleet/freezing rain, Nor'Easter, snow, blizzard)
  - Wildfire



## EXERCISE – Identifying Hazards of Concern

- **The 2015 plan included:**
  - Earthquake
  - Extreme Temperature
  - Flood (riverine, coastal)
  - Land Failure (landslide, subsidence/sinkholes)
  - Severe Storm (hail, wind, lightning, thunderstorm, tornado, hurricane, tropical storm)
  - Severe Winter Storm (cold, sleet/freezing rain, Nor'Easter, snow, blizzard)
  - Wildfire
- **In review...**
  - Have additional hazards impacted the County since 2015?
  - Have hazard been mitigated and no longer cause damage?
  - Should hazards be regrouped to align with the 2019 State HMP?
  - Should additional hazards be included?
- **Quick Survey!**
  - Go here (<https://forms.gle/se2gaKy8rR5GxXW8A>) to answer a few questions about the Hazards of Concern



Thinking back over the last few years...

- Have additional hazards impacted Putnam County since 2015?
- Have hazards been mitigated and no longer cause damage or put the County at risk?
- Should hazards be regrouped to align with the draft 2020 State HMP?

2019 State HMP	Identified Hazard in the 2015 Putnam HMP	2015 Putnam HMP Ranking	Has the frequency, severity, or location of the hazard changed in your community? (N = No Change; I = Increase; D = Decrease)	2020 Putnam HMP* (Indicate "Yes", combine with other hazard, or provide comments for any changes)
Avalanche	No	-		
Coastal Hazards	No	-		
Coldwave	Yes - included in Extreme Temperature	Medium		
Drought	No	-		89 farms (increase of 24% from 2012); market value of products sold is \$1.1 million
Earthquake	Yes - Earthquake	Low		Four earthquakes since 2015, ranging from magnitude 1.9 to 2.4
Please identify any other hazards that you believe should be considered in the 2020 update of the Putnam County Hazard Mitigation Plan (e.g. landslides, wildfires, invasive species, etc.)				
Is stormwater flooding an issue? Areas not in the floodplain that experience flooding?				

What are the natural hazards that present the most risk to your jurisdiction today?

☐ Climate Change  
☐ Dam Failure  
☐ Drought  
☐ Earthquake  
☐ Extreme Temperature (heat and cold)  
☐ Flood (riverine, dam failure, heavier dams)  
☐ Geologic (landslide, subsidence/sinkhole)

☐ Severe Weather (high wind, tornado, thunderstorm, hail)  
☐ Severe Winter Weather (heavy snow, blizzard, ice)  
☐ Wildfire  
☐ Hazardous Materials (fixed site, in-transit)  
☐ Disease Outbreak  
☐ Invasive Species  
☐ Other: \_\_\_\_\_

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## EXERCISE – Identifying Hazards of Concern

Write down a few notes...

- ✓ Identify vulnerable areas in your municipality
- ✓ Are there impacts occurring in your municipality that happen often due to small events or considered a nuisance that needs addressing?
- ✓ Include: type of hazard event, location, and impacts



Please identify any other hazards that you believe should be considered in the 2020 update of the Putnam County Hazard Mitigation Plan (e.g. landslides, wildfires, invasive species, etc.)

What are the natural hazards that present the most risk to your jurisdiction today?

☐ Climate Change  
☐ Dam Failure  
☐ Drought  
☐ Earthquake  
☐ Extreme Temperature (heat and cold)  
☐ Flood (riverine, dam failure, heavier dams)  
☐ Geologic (landslide, subsidence/sinkhole)

☐ Severe Weather (high wind, tornado, thunderstorm, hail)  
☐ Severe Winter Weather (heavy snow, blizzard, ice)  
☐ Wildfire  
☐ Hazardous Materials (fixed site, in-transit)  
☐ Disease Outbreak  
☐ Invasive Species  
☐ Other: \_\_\_\_\_

Why do these hazards present the most risk?

Has this changed since the 2015 HMP?

Please identify any specific vulnerabilities that you are aware of in your community (e.g. flood-prone areas or specific properties, critical facilities that lack backup power, etc.). Include susceptible areas that have a single point of entry, that may experience evacuation issues during a hazard event.

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## Update the Risk Assessment

- Update assets
- Look at previous impacts
- Analyze risks
- Review with the Steering Committee
- Risk Assessment Meeting



## Critical Facilities and Lifelines

- **Review 2015 CF inventory to ensure complete** – each municipality will be provided a list of critical facilities to review, modify and/or update
- **Identify lifelines and add to inventory**

**Critical Facilities** are those facilities considered critical to the health and welfare of the population and that are especially important following a hazard. As defined for this HMP, critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous material facilities.

**Essential facilities** are a subset of critical facilities that include those facilities that are important to ensure a full recovery following the occurrence of a hazard event. For the County risk assessment, this category was defined to include police, fire, EMS, schools/colleges, shelters, senior facilities, and medical facilities.



## What are FEMA Lifelines?

**Lifelines** provide indispensable service that enables the continuous operation of **critical business** and **government functions**, and is critical to **human health and safety**, or **economic security**

- What does this mean?
  - Lifelines are critical interdependent systems that enable continuous operation of government functions and critical business, and are essential to human health and safety or economic security.
  - FEMA's lifeline concept helps stabilize communities after a disaster by preventing lifelines from being disrupted
- How will lifelines be used?
  - Enhances situational awareness
  - Prioritizes focus areas for each operational period during response
  - Exposes destabilization factors
  - Unifies ability to standardize plans and unmet needs



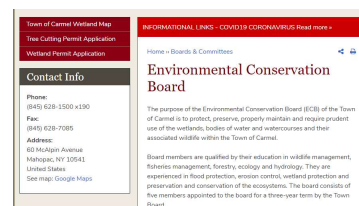
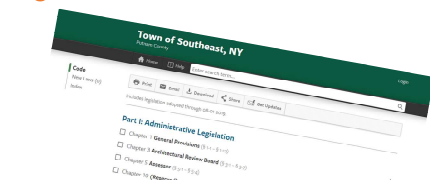
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## Update the Capability Assessment

*Authorities, laws, policies, programs, staff, funding and other resources available to Putnam County to support hazard mitigation*

- Planning and Regulatory Capability
- Building Code
- Administrative and Technical Capability
- Fiscal Capability
- Education and Outreach
- Adaptive Capacity



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## Mitigation Strategy

- Goals
  - What outcomes do you want to achieve?
- Actions
  - What specific actions will be taken to reduce hazard risk?
- Action Plan
  - How will the actions be prioritized and implemented?



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## Connection to the Mitigation Strategy

- Need a clear connection between vulnerability and proposed mitigation actions.
- Use the capability assessment to provide insight into challenges/opportunities for the mitigation strategy as well.
- Provide a factual basis for activities proposed in the mitigation strategy.



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## Update the Mitigation Strategy

- Review Goals and Objectives
- Determine Status of 2015 Mitigation Actions
- Start with Problems
  - **Areas that have been impacted**
  - **Recurring issues**
  - **Critical/Lifeline facilities in the floodplain**
  - **RL/SRL properties need mitigating?**
- Identify New Mitigation Actions/Projects
- Conduct Mitigation Strategy Workshop
- Conduct Public Meeting



## Update Progress on 2015 Actions

- Confirm reported progress made on mitigation actions identified in 2015 plan.
- If an action wasn't completed, why not?
  - Detailed information is required
  - Indicating no funding was available requires more details as to why mitigation funding was not pursued.
  - Do you want to include in the 2020 update?
- If you completed the action, NYS wants to know...
  - Summary of original problem
  - Cost to complete
  - Level of protection of project
  - Benefits/avoided losses of project

## New Mitigation Actions for the 2020 HMP Update

- Opportunity to add new mitigation actions
- This includes all in-progress grant applications (HMGP generators, CDBG acquisitions, etc.)
- Tips for the 2020 update:
  - Quality NOT quantity
  - Specific not general
  - What can realistically be accomplished in 5 years?



## Types of Mitigation Actions



**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.

## Other Sections of the HMP

- County Profile
- Planning Process
  - Documenting the update process
- Plan Maintenance
  - Incorporation into other plans, as well as identifying how other plans will be incorporated in the updated HMP



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## We Need YOU Engaged and Involved!

- Update your Municipal webpage and link to County's HMP website
- Social Media Blasts – we will provide content and graphics
- Local Announcements of HMP Update
- Local public meetings
- Informational Brochure – we will provide to you
- Draft Plan Review



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## Update Your Jurisdictional Annex

- Annexes have been pre-populated with information from the 2015 HMP. We need you to review and update.
- On May 1<sup>st</sup>, Tetra Tech sent each municipality their annex along with instructions on how to complete each section of the annex.
- Tetra Tech is here to help! Please reach out if you have any questions with updating the annex.



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## Next Steps

- Attend Planning Partnership Meeting – TODAY!
- Determine Hazards of Concern to include in the HMP
- Review Hazard Profiles
- Review Risk Assessment Results
- Identify Problems and Problem Areas
- Develop Mitigation Strategy
- Review Draft Plan
- Submit Draft Plan for NYSDHSES/FEMA Review
- Adopt FEMA-Approved Plan
- Implement Projects and Maintain the Plan → Increase Resilience!

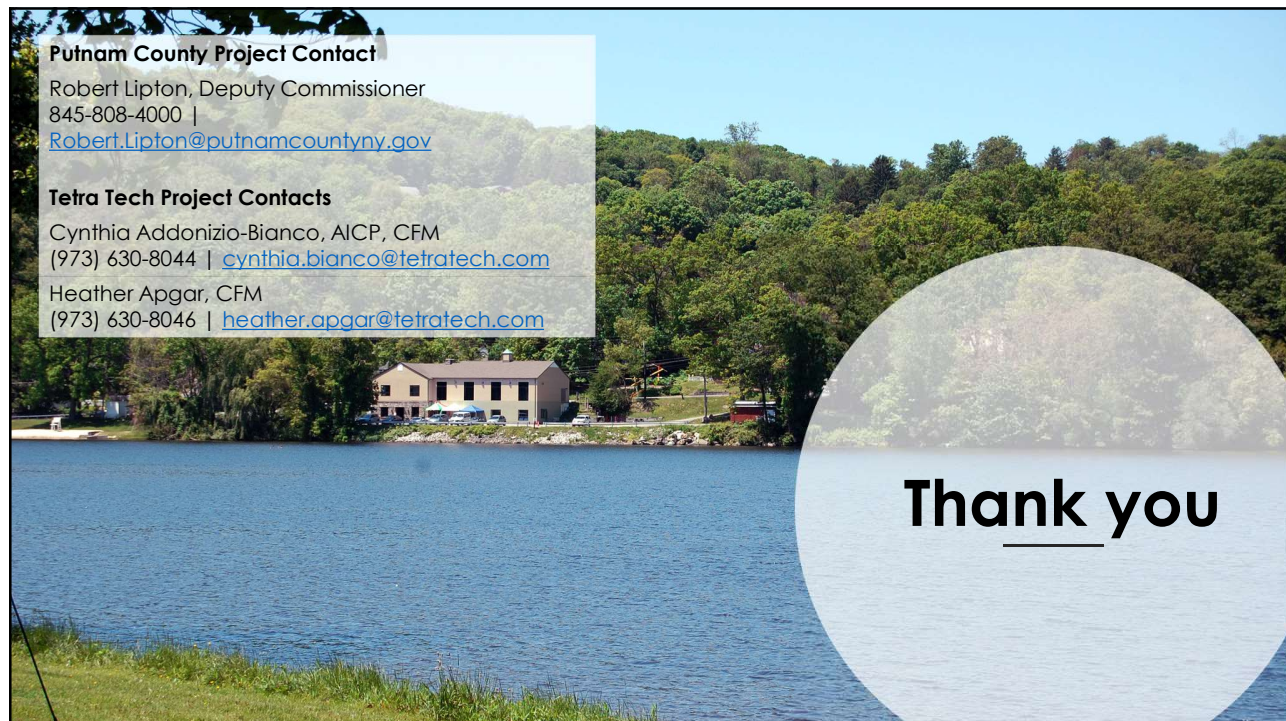


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