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Agenda

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The clipboard icon shows a checklist with three items: the first is checked with a red checkmark, the second is marked with a red 'X', and the third is checked with a red checkmark.

 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 – What is it?

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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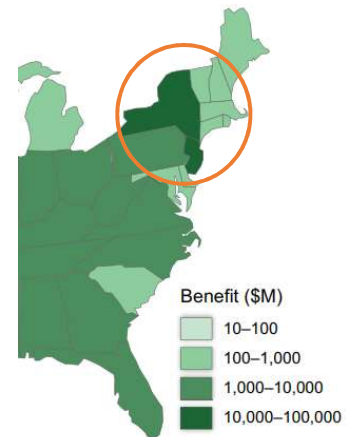
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Hazard Mitigation Works!

- 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
Overall Hazard Benefit-Cost Ratio		6:1
 Riverine Flood		7:1
 Hurricane Surge		Too few grants
 Wind		5:1
 Earthquake		3:1
 Wildland-Urban Interface Fire		3:1

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



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Why Update?

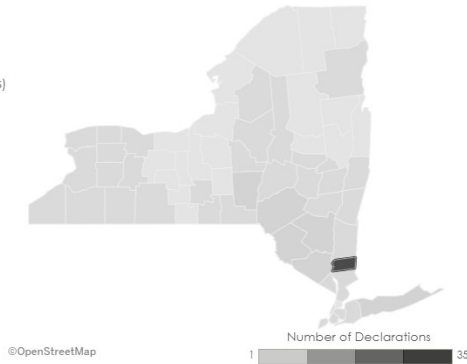
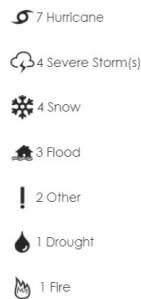
- The mitigation plan update will:
 - Help the County prepare for and mitigate the effects of disasters
 - Continue to allow the county and participating partners to be eligible for pre- and post-disaster mitigation funding
 - Support CRS participation/rating of municipalities
- What is at risk in Putnam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

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Hazard Mitigation – What's at Risk?

- FEMA Disaster Declaration history in Putnam County



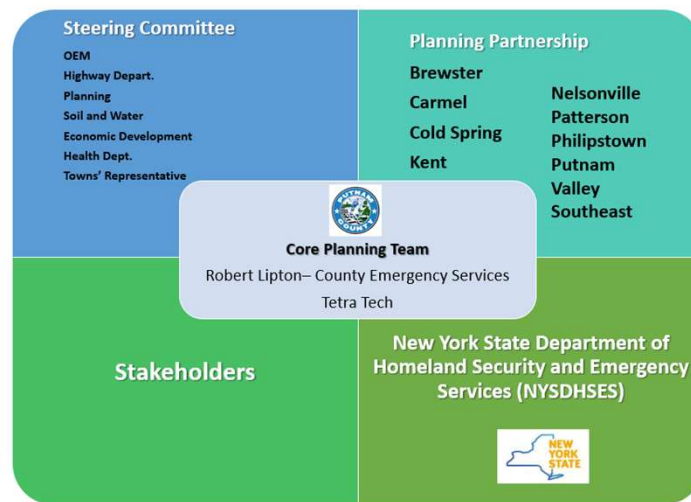
Source: NYSDHSES MitigateNY <https://mitigateny.availabs.org/>



Year of Declaration Date	Title	Disaster Number
1965		
1971	WATER SHORTAGE	204
1976	SEVERE STORMS & FLOODING	311
1987	STORMS, RAINS, LANDSLIDES & FLOODING	487
1993	SEVERE WINTER STORM	801
1994	SEVERE BLIZZARD	3107
1999	BLIZZARD OF 96 (SEVERE SNOW STORM)	1089
	SEVERE STORMS AND FLOODING	1095
	HURRICANE FLOYD EMERGENCY DECLARATIONS	3149
	HURRICANE FLOYD MAJOR DISASTER DECLARATIONS	1094
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	3242
	SEVERE STORMS AND FLOODING	1689
2007	SEVERE STORMS AND INLAND AND COASTAL FLOODING	1692
2008	SEVERE WINTER STORM	3244
	SEVERE STORMS AND FLOODING	3242
2009	SEVERE STORMS AND FLOODING	1507
2010	HURRICANE KATRINA EVACUATION	1672
2011	SEVERE STORMS AND INLAND AND COASTAL FLOODING	3299
	SEVERE WINTER STORM	4070
	HURRICANE IRIS	3351
2012	HURRICANE SANDY	4085

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Project Organization



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Hazard Mitigation Committee Composition

Steering Committee Members

- OEM
 - Commissioner Ken (Clair)
 - Deputy Commissioner Bob Lipton
- HIGHWAY DEPT
 - Commissioner Fred Penna
 - Deputy Commissioner John Tully
- PLANNING
 - Vinny Tamagna
 - Barbara Barosa
- Soil and Water
 - Lauri Taylor
- Economic Dev./Real property
 - Lisa Johnson
- Dept. of Health
 - Commissioner Dr. Mike Nesheiwat
 - Shawn Rogan
- Rep of Towns
 - Supervisor Rich Williams

Ground Rules

- What is the Steering Committee's role?
 - Guide the Planning Partnership through the HMP update process
 - Oversee the planning process from start to finish
- Chair
- Attendance
- Quorum
- Alternates
- Decision making
- Recommendations
- Spokespersons
- Staffing
- Public Involvement
- Courtesy
- Meetings

Hazard Mitigation Planning Overview

- 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



Critical Facilities and Lifelines

- Review 2015 CF inventory to ensure complete
- Crosswalk and identify lifelines

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.

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*



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Update Risk Assessment

- Update Assets
- Examine Previous Impacts
- Analyze Risks
- Review with Steering Committee
- Risk Assessment Meeting - open to the public



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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? (NC = 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
Earth	Yes - Earthquake	Low		Four earthquakes since 2015, ranging from magnitude 3.9 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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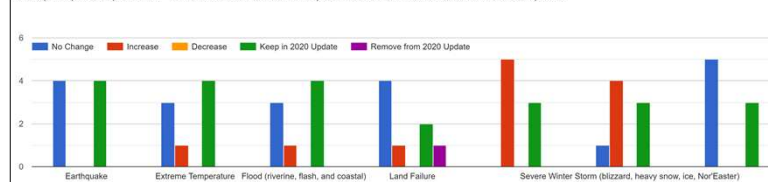
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Hazards of Concern – Survey Results!

Looking at the hazards from the last plan...

- **Earthquake**
 - Majority indicated no change in frequency/severity/location
 - Majority want to keep in the 2020 Update
- **Extreme Temperature**
 - Majority indicated no change in frequency/severity/location; one stated an increase in frequency/severity/location
 - Majority want to keep in the 2020 Update
- **Flood**
 - Majority indicated no change in frequency/severity/location; one stated an increase in frequency/severity/location
 - Majority want to keep in the 2020 Update
- **Land Failure**
 - Majority indicated no change in frequency/severity/location; one stated an increase in frequency/severity/location
- **Severe Storm**
 - One suggested to remove from the 2020 Update; two suggested to keep in the 2020 Update
- **Severe Winter Storm**
 - Majority indicated an increase in frequency/severity/location and want to keep in the 2020 Update
- **Wildfire**
 - Majority indicated an increase in frequency/severity/location and want to keep in the 2020 Update
- **Wildfire**
 - Majority indicated no change in frequency/severity/location and want to keep in the 2020 Update

The hazards listed below were included in the 2015 HMP. Please review this list and for each one identify if there has been no change, increase, or decrease in frequency/severity/location. Then, indicate whether or not you think it should be included in the 2020 Update.



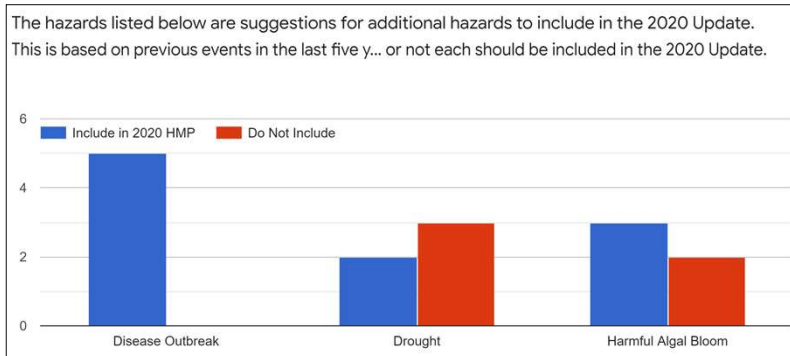
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Hazards of Concern – Survey Results!

How about new hazards? Anything new we should be looking at?

- Everyone who took the survey thinks we should include **Disease Outbreak**
- Majority thinks **Drought** should not be included
- There is a split whether or not **Harmful Algal Bloom** should be included



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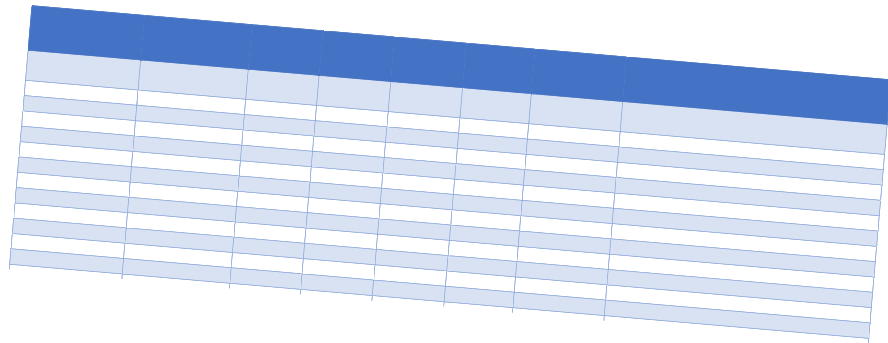
Goals and Objectives

Goal #	Goal Statement	Modify, add, or Remove Goal
G-1	Identify and implement mitigation actions and initiatives that address life-safety issues.	
G-2	Protect property, including public and private property, critical facilities and infrastructure. (Modified from NYS 2014 HMP – Goal 2)	
G-3	Increase education and awareness, and promote relationships with stakeholders, citizens, elected officials, and property owners to develop opportunities for mitigation of natural hazards. (Modified from NYS 2014 HMP – Goal 3)	
G-4	Encourage the development and implementation of long-term, cost-effective, and resilient mitigation projects to preserve or restore the functions of natural systems. (NYS 2014 HMP – Goal 4)	
G-5	Enhance or develop programs to build regional, county and local mitigation and related emergency management capabilities.	
G-6	Support comprehensive county and local mitigation through the integration of hazard mitigation planning into related county and local plans and programs.	
Additional Goals?		

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Public and Stakeholder Outreach

- Strategy
- Tracking



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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



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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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Data Collection Status

- Letters of Intent to Municipalities – Email to all supervisors, mayors, and clerks *pending*
- Critical Facility Inventory (County has provided initial data)
- Reports and Plans – Tt has begun compiling reports, plans, and codes available online (see handout)
- Regulatory Flood Maps: FEMA 2013 DFIRMs
- Template Data Gathering/Update Tools and Annex Template Approach
- Municipal Information Sheets
- Capability Assessments
- Mitigation Strategy Updates
- BAToolSM



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In-Kind Services

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	2/26/2020				Yes – sign-in	Discussed the HMP update
Meeting	Town of ?? Board Meeting	3/9/2020	7:00 pm	9:00 pm	2		Discussed the HMP update
Phone Call	Town of ?? phone call	3/10/2020			1	No	Spoke with the Town about the HMP process and their responsibilities in participating
Meeting	Town of ?? Board Meeting	3/12/2020	6:30 pm			Yes - agenda	

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HMP Project Schedule



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Next Steps

- Attend Planning Partnership Meeting
- 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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Questions?



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