

GENESEE COUNTY

MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN

2025 Update

Volume III Appendices

Prepared for:
Genesee County
Office of Emergency Management
7690 State St. Rd., Batavia, NY 14020

July 2025



TETRA TECH



Genesee County Hazard Mitigation Plan

PREPARED FOR

Genesee County
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PREPARED BY

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TETRA TECH



TABLE OF CONTENTS

APPENDIX A: ADOPTION RESOLUTION.....	A-1
APPENDIX B: MEETING DOCUMENTATION.....	B-1
APPENDIX C: PUBLIC AND STAKEHOLDER OUTREACH	C-1
APPENDIX D: PARTICIPTION MATRIX	D-1
APPENDIX E: ACTION WORKSHEET TEMPLATE.....	E-1
APPENDIX F: PLAN MAINTENANCE TOOLS.....	F-1
APPENDIX G: CRITICAL FACILITY INVENTORY	G-1
APPENDIX H: RISK ASSESSMENT SUPPLEMENTARY DATA	H-1
History of Hazard Events Within the County.....	H-1
Civil Unrest	H-1
Dam Failure	H-2
Drought.....	H-2
Earthquake	H-4
Epidemic.....	H-4
Extreme Temperature.....	H-5
Flood.....	H-9
Hazardous Materials.....	H-11
Severe Storm.....	H-12
Severe Winter Storm	H-21
Terrorism	H-24
Transportation Accident.....	H-24
Utility Interruption.....	H-25
Wildfire.....	H-28
APPENDIX I: MITIGATION STRATEGY SUPPLEMENTARY DATA.....	I-1
2019 Goals and Objectives Review	I-1
APPENDIX J: NYS DHSES PLANNING GUIDANCE	J-1

APPENDIX A: ADOPTION RESOLUTION



The Genesee County and municipal adoption resolutions will be included in this appendix upon receipt of the Federal Emergency Management Agency (FEMA) Approval Pending Adoption (APA) status. Please refer to Chapter 2 (Planning Process) for additional information on plan adoption procedures.

This appendix also includes an example resolution to be submitted by Genesee County and participating jurisdictions authorizing adoption of the 2025 Genesee County Hazard Mitigation Plan Update.



Sample Resolution

(LOCAL GOVERNMENT, INCLUDING SPECIAL DISTRICTS), New York

RESOLUTION NO. _____

A RESOLUTION OF THE (LOCAL GOVERNMENT) ADOPTING THE 2025 Genesee County Hazard Mitigation Plan

WHEREAS the (local governing body) recognizes the threat that natural hazards pose to people and property within (local government); and

WHEREAS the (local government) has prepared a multi-hazard mitigation plan, hereby known as the 2025 Genesee County Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS the 2025 Genesee County Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in (local community) from the impacts of future hazards and disasters; and

WHEREAS adoption by the (local governing body) demonstrates their commitment to hazard mitigation and achieving the goals outlined in the 2025 Genesee County Hazard Mitigation Plan.

NOW THEREFORE, BE IT RESOLVED BY THE (LOCAL COMMUNITY), New York, THAT:

Section 1. The (local governing body) adopts the 2025 Genesee County Hazard Mitigation Plan. This plan, approved by the community, may be edited or amended after submission for review, but will not require the community to re-adopt any further iterations. This only applies to this specific plan and does not absolve the community from updating the plan in 5 years.

ADOPTED by a vote of ____ in favor and ____ against, and ____ abstaining, this ____ day of _____, _____.

By: _____

(print name)

ATTEST: By: _____

(print name)

APPROVED AS TO FORM: By: _____

(print name)

APPENDIX B: MEETING DOCUMENTATION



Appendix B includes meeting agendas, slides, and minutes (where applicable and available) for meetings convened during the development of the 2025 Genesee County Hazard Mitigation Plan Update.



AGENDA

GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE Steering Committee Kickoff Meeting

Thursday, November 2, 2023 | 9:00 – 11:00 a.m.

1. Introductions

2. Overview of Hazard Mitigation

3. Project Scope Review

- a. Phase 1: Planning Process
 - b. Phase 2: Update the Risk Assessment
 - c. Phase 3: Public Involvement Strategy
 - d. Phase 4: Mitigation Strategy
 - e. Phase 5: Plan Maintenance
 - f. Phase 6: Plan Update and Deliverables
 - g. Phase 7: Plan Review and Adoption
-

4. Hazards of Concern

- | | |
|------------------------|----------------------------|
| a. Civil Unrest | h. Hazardous Materials |
| b. Dam Failure | i. Severe Storm |
| c. Drought | j. Severe Winter Storm |
| d. Earthquake | k. Terrorism |
| e. Epidemic | l. Transportation Accident |
| f. Extreme Temperature | m. Utility Interruption |
| g. Flood | n. Wildfire |
-

5. Planning Partnership

- a. Municipal officials
 - b. Districts
 - c. Authorities
 - d. Socially vulnerable populations and service providers
 - e. Others
-

6. Public and Stakeholder Outreach

- a. Website
 - b. Problem Identification Survey
 - c. Stakeholder Surveys
-





AGENDA

7. Project Schedule Review

8. Next Steps

- a. Document Request
 - b. GIS Data
 - c. Discuss StoryMap
 - d. Develop Website and Surveys
 - e. Planning Partnership Kickoff Meeting
 - f. Risk Assessment Update
-

9. Questions





MEETING NOTES

Meeting	Genesee County, New York Hazard Mitigation Plan (HMP) Update Steering Committee Kickoff Meeting		
Date	November 2, 2023	Time	9:00 – 11:00 a.m.
Location	Genesee County Fire Training Center, 7690 State Street Road, Batavia, New York		
Attendees	Rochelle Stein, Chair, Genesee County Legislature (via teleconference)		
	Tammi Ferringer, Deputy County Manager		
	Gary Patnode, Deputy Coordinator, Genesee County Emergency Management Services		
	Tim Yaeger, Coordinator, Genesee County Emergency Management Services		
	David Bell, Public Health Emergency Preparedness Coordinator, Genesee County Health Department		
	Craig Smith, Deputy Highway Superintendent, Genesee County Highway Department		
	Laura Wadhams, Assistant County Engineer, Genesee County Highway Department		
	Felipe Oltramari, Director, Genesee County Department of Planning		
	Carla Mindler, Commissioner, Genesee County Department of Social Services/Youth Bureau		
	Jared Elliott, District Field Manager, Genesee County Soil and Water Conservation District		
	Erik Fix, Assistant City Manager, City of Batavia		
	Rachel Tabelski, City Manager, City of Batavia		
	Tony Subbio, Project Manager, Tetra Tech, Inc.		

Discussion Points

This section summarizes each discussion point addressed during the Steering Committee Kickoff Meeting.

Introductions

Mr. Yaeger welcomed the group. Attendees introduced themselves.

Overview of Hazard Mitigation

Mr. Subbio provided a brief overview of hazard mitigation and the funding available from the Federal Emergency Management Agency (FEMA). He described the requirements of the Disaster Mitigation Act of 2000 (DMA 2000) and the New York State Division of Homeland Security and Emergency Services (NYS DHSES) for HMPs.

Project Scope Review

Mr. Subbio summarized the project scope, which is organized into the following phases:

- Phase 1: Planning Process – This phase includes forming the Steering Committee and Planning Partnership and conducting outreach to stakeholders and the general public. Jurisdictions will form teams of officials to compile information for the HMP update. Tetra Tech will develop a project website and a set of stakeholder surveys to collect information to feed the planning process.
- Phase 2: Update the Risk Assessment – This phase includes analyzing the hazards of concern and how they impact Genesee County and its communities. This phase also includes data



MEETING NOTES

collection. Mr. Subbio sent Tetra Tech's GIS Data Wish List to Mr. Yaeger on September 23, 2023.

- Phase 3: Public Involvement Strategy – In this phase, Tetra Tech will develop a StoryMap website, stakeholder surveys, and other outreach opportunities to gather information from stakeholders and the general public.
- Phase 4: Mitigation Strategy – This phase includes updating the goals and objectives of the HMP and developing specific actions for inclusion in the updated HMP.
- Phase 5: Plan Maintenance – In this phase, planners will document how the updated HMP will be maintained for the next 5 years. Tetra Tech will again deploy the BAToolSM program to support ongoing plan maintenance.
- Phase 6: Plan Update and Deliverables – This phase captures progress on writing the updated HMP and the layers of review before the completed HMP is approved by FEMA.
- Phase 7: Plan Review and Adoption – Under this phase, Genesee County and participating jurisdictions will formally adopt the HMP.

Mr. Oltramari reported that some municipalities were reluctant to adopt the previous HMP because they thought they would be held accountable to implement it. Mr. Bell brought up the question of liability to implement identified actions. Mr. Subbio described the HMP as a wish list and stated that no organization is holding any participating jurisdictions accountable to implement the plan.

Hazards of Concern

Attendees discussed the hazards of concern from the existing HMP. The following summarizes that discussion:

- Civil Unrest – Mr. Yaeger stated that the State funded threat assessment teams. Genesee County's threat assessment team meets monthly. It has identified several issues related to political rallies, protests, etc.
- Dam Failure – Mr. Subbio stated that the HMP will meet the requirements of FEMA's High Hazard Potential Dams (HHPD) grant program, but that meeting those requirements depends on the data available about the county's dams.
- Drought – Parts of the county were in the D2 classification this year.
- Earthquake – No discussion was held about this hazard.
- Epidemic – Mr. Bell stated that it is more likely for the county to experience pandemics than locally started epidemics. This hazard will be renamed "pandemic."
- Extreme Temperature – No discussion was held about this hazard.
- Flood – Flooding on the Tonawanda Creek is still an issue. There is a large amount of trees and other debris in the creek. The entire creek needs to be cleaned.
- Hazardous Materials – Ms. Stein inquired if Genesee County maintains air monitoring resources for hazardous materials incidents. Mr. Yaeger stated that Genesee County is not aware of what hazardous materials are transported through the county.
- Severe Storm – No discussion was held about this hazard.
- Severe Winter Storm – Genesee County is impacted by storms that also affect the City of Buffalo; the media covers impacts in Buffalo but not in the county.
- Terrorism – This hazard will include active shooters and cyber attack.



MEETING NOTES

- Transportation Accident – Approximately 8,000 cars per day travel through the Town of Alabama due to marijuana sales in the tribal nation. The traffic volume has increased the number of traffic accidents and ambulance calls.
- Utility Interruption – The capacity of water infrastructure in the county is an issue. The number of agricultural users of water has increased.
- Wildfire – the Canadian Wildfires impacted air quality in the county. Mr. Patnode stated that he probably has relevant data on the impacts in the county.

Attendees stated that municipal officials might resist the findings of the HMP if it discusses climate change. Because the state and FEMA require climate change be addressed in the HMP, the updated HMP will use softer language to describe climate change, such as discussing future hazard conditions instead.

The hazards listed above are the hazards of concern for the updated HMP.

Planning Partnership

Mr. Subbio described the Planning Partnership and the groups to be represented on it. He explained that fire districts, school districts, multi-municipal authorities, and other special districts will be jurisdictions of their own in this HMP update. There are three fire districts and 17 school districts (but only eight of the school districts have facilities in the county). Other districts to include as jurisdictions include the Stamp Waterworks, the Monroe County Water Authority, the Batavian Business Improvement District, multiple library districts, and the Erie County Water Authority.

The tribal nation typically does not participate in Genesee County's planning efforts. Mr. Subbio stated that tribal nations are generally treated as states in mitigation planning.

Genesee County's annex will address any coordination required with the New York State Thruway Authority.

Mr. Subbio also described FEMA's recently updated requirements related to addressing social vulnerability in HMPs. The Department of Social Services will lead the interface with socially vulnerable populations and groups in the county. Social vulnerability issues in the county include an aging population, mobility issues, substance abuse issues, food deserts, and pharmacy deserts. Genesee County is not aware of how much the population relies on the public transportation system.

Ms. Tabelski reported that she has received reports from the school district that 40–50 students in the City of Batavia live in hotels.

The county does not have any homeless shelters. The Department of Social Services arranges for people to stay in hotels or motels when the temperature reaches or drops below 32 degrees Fahrenheit. As such, hotels and motels will be considered critical facilities for the HMP analysis.

Public and Stakeholder Outreach

Attendees discussed outreach to stakeholder organizations and the general public. Tetra Tech will develop a project website, a problem identification survey on which individuals can pinpoint hazard



MEETING NOTES

impacts, and a set of stakeholder surveys. The stakeholder surveys will collect information from the general public, neighboring jurisdictions, and other stakeholder organizations.

Project Schedule Review

Mr. Subbio provided a brief overview of the project schedule. The risk assessment will be complete in April 2024. The mitigation strategy will be completed in June 2024. The draft of the HMP will be available for public comment by the middle of June 2024. Public, State, and FEMA reviews of the plan will occur after that.

Mr. Subbio stressed that the project timeline depends on receiving data and information from Genesee County and jurisdictions in a timely manner. Delays in receiving these data and information will delay the overall project timeline.

Next Steps

- Genesee County will update the GIS Data Wish List and return it to Tetra Tech.
- Steering Committee members will send any relevant plans, studies, or documents to Mr. Subbio.
- Attendees will send lists of points of contact for stakeholder organizations to Mr. Yaeger.
- Tetra Tech will develop the survey tools.
- Tetra Tech will develop the StoryMap website.
- The Steering Committee will schedule the Planning Partnership Kickoff Meeting in early 2024.
- Tetra Tech will assess the risks faced by Genesee County and its communities.

The meeting adjourned at 11:00 a.m.

Project Schedule

Phase	Timeframe
Phase 1: Planning Process	<ul style="list-style-type: none"> Steering Committee Kickoff Meeting conducted on November 2, 2023 Planning Partnership members identified by early November 2023 Planning Partnership Kickoff Meeting conducted in early December 2023
Phase 2: Update the Risk Assessment	<ul style="list-style-type: none"> Data collected by December 2023 Distribute data collection surveys (critical facilities, problem areas, and new development) through January 2024 Update hazard profiles through early April 2024 Risk and vulnerability assessment conducted through early April 2024 Planning Partnership risk assessment review meeting conducted in mid-April 2024
Phase 3: Public Involvement Strategy	<ul style="list-style-type: none"> Project website or StoryMap developed by the end of January 2024 and maintained throughout the project Develop public outreach strategy by December 2023 Public and stakeholder surveys available online through mid-April 2024 Public outreach conducted with the County through mid-June 2024
Phase 4: Mitigation Strategy	<ul style="list-style-type: none"> Draft goals and objectives developed in mid-April 2024 Review and assess capabilities and current integration for the County and municipalities by the end of April 2024 Goals and objectives meeting conducted in early May 2024 Planning Partnership mitigation strategy workshop conducted in mid-May 2024 Mitigation actions finalized by mid-June 2024
Phase 5: Plan Maintenance	<ul style="list-style-type: none"> Plan maintenance procedures developed by early January 2024 Develop the BAToolSM Program with identified mitigation actions by December 2024 Launch the BAToolSM Program and hold training with Steering Committee and Planning Team by the end of January 2025
Phase 6: Plan Update and Deliverables	<ul style="list-style-type: none"> Draft developed by the middle of June 2024 Public comment period running from the middle of June to the middle of July 2024 Public Draft Plan Review Meeting conducted in late July 2024 Draft finalized by the end of July 2024
Phase 7: Plan Review and Adoption	<ul style="list-style-type: none"> Draft submitted to NYS DHSES at the end of July 2024 NYS DHSES Review Period from late July to mid-September 2024 Draft HMP updated and submitted to FEMA Region II by the end of September 2024 FEMA Review Period from the beginning of October to the middle of November 2024 APA granted by the middle of December 2024 Adoptions collected and submitted to NYS DHSES/FEMA September-December 2024 Final deliverable to County by January 2025
Project Management	<ul style="list-style-type: none"> Project Kickoff Meeting conducted on August 15, 2023 Project Closeout Meeting conducted in January 2025



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Kickoff Meeting

SIGN-IN

Thursday, November 2, 2023 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Carla Mondler	DSS / Youth Bureau	Carla.mondler@dofa- State.ny.us	344-2580 x6405
Felipe Oltamari	Planning	Felipe.Oltamari@ co.genesee.ny.us	815-7901
Sared Elliott	GC Soil and water	Sared.Elliott@ny.nceohot. net	343-2362 x5
Ernie Frie	City of Batavia	efrie@batavianyork.com	743-6300
Rachael Tabelski	City of Batavia	rtabelski@batavianyork.com	743-6300
Tammi Ferringer	County Mgr.	tammi.ferringer@ Cogenesecny.us	x2200
Laura Wadhams	Co. Hwy	laura.wadhams@ cogenesec.ny.us	x3712
CRAIG SMITH	HIGHWAY	craig.smith@co.genesec.ny.us	344-8508
GARY Patnode	Emergency Management	gary.patnode@co.genesec.ny.us	585-909-5653
Tim Yager	" "	Tim.Yager@co.genesec.ny.us	585 344 0078





GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Kickoff Meeting

SIGN-IN

Thursday, November 2, 2023 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
David Bell Public Health Emergency Prep Coord.	County Health	David.Bell@ Co.genesee.ny.us	(588) 813-3925
Tony Subbio/PM	Tetra Tech, Inc.	tony.subbio@tetratech.com	717-831-5654





AGENDA

GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE Planning Partnership Kickoff Meeting

Wednesday, February 7, 2024 | 9:00 – 11:00 a.m.

-
1. Introductions
 2. Overview of Hazard Mitigation
 3. Project Scope Review
 - a. Phase 1: Planning Process
 - b. Phase 2: Update the Risk Assessment
 - c. Phase 3: Public Involvement Strategy
 - d. Phase 4: Mitigation Strategy
 - e. Phase 5: Plan Maintenance
 - f. Phase 6: Plan Update and Deliverables
 - g. Phase 7: Plan Review and Adoption
 4. Project Schedule Review
 5. Next Steps
 - a. Complete worksheets
 - b. Provide reports and plans
 - c. Update the risk assessment
 6. Questions
-





MEETING NOTES

Meeting	Genesee County, New York Hazard Mitigation Plan (HMP) Update Planning Partnership Kickoff Meeting		
Date	February 7, 2024	Time	9:00 – 10:50 a.m.
Location	Genesee County Fire Training Center, 7690 State Street Road, Batavia, New York		
Attendees	Matt Landis, County Manager		
	Tammi Ferringer, Deputy County Manager		
	Mark Masse, Senior Vice President of Operations, Genesee County Economic Development Center		
	Gary Patnode, Deputy Coordinator, Genesee County Emergency Management Services		
	Tim Yaeger, Coordinator, Genesee County Emergency Management Services		
	David Bell, Public Health Emergency Preparedness Coordinator, Genesee & Orleans Health Department		
	Tim Hens, County Highway Superintendent, Genesee County Highway Department		
	Craig Smith, Deputy Highway Superintendent, Genesee County Highway Department		
	Laura Wadhams, Assistant County Engineer, Genesee County Highway Department		
	Felipe Oltramari, Director, Genesee County Department of Planning		
	Brian Frieday, Chief Deputy, Genesee County Sheriff's Office		
	Joseph Graff, Chief Deputy, Genesee County Sheriff's Office		
	Frank Riccobono, Director of Emergency Communications, Genesee County Sheriff's Office		
	Erik Fix, Assistant City Manager, City of Batavia		
	Joshua Graham, Fire Chief, City of Batavia		
	Chad Bliss, Director of Facilities, Batavia City School District		
	Joseph Chimino, Mayor, Village of Bergen		
	Dan Coughlin, Council Member, Town of Elba		
	Greg Kellogg, Chief, LeRoy Police Department		
	Bill Kettle, Deputy Mayor, Village of LeRoy		
	Steve Savage, Director of Engineering, Monroe County Water Authority		
	Brad Smith, Coordinator of Water Systems Emergency Response, Monroe County Water Authority		
	John C. Fisgus, Superintendent, Oakfield-Alabama Central School District		
	Jordan Yager, Director of Facilities, Oakfield-Alabama Central School District		
	Kate Hoffman, Superintendent of Schools, Pavilion Central School District		
	Erik Long, Zoning Officer, Town of Pembroke		
	Christine Abrams, Administrator, Tonawanda Seneca Nation		
	Roland Paperman, Disaster Assistance Representative, Hazard Mitigation Planning, New York State Division of Homeland Security and Emergency Services (NYS DHSES)		
	Michael Tarasoff, Plan Manager, NYS DHSES		
	Tony Subbio, Project Manager, Tetra Tech, Inc.		



MEETING NOTES

Discussion Points

This section summarizes each discussion point addressed during the Planning Partnership Kickoff Meeting.

Introductions

Mr. Yaeger welcomed attendees to the meeting. Attendees introduced themselves.

Attendees identified areas of specific focus or concern for the planning process. Those areas included the following:

- Mr. Yaeger stated the following concerns:
 - The overall resilience of the county to drought, aging water infrastructure, and the drying of water supply sources.
 - The agricultural community is concerned with soil erosion and its cascading impacts.
 - The degree of growth of development in the floodplain; flood insurance rate maps (FIRM) still have not been updated.
 - Cyber security and data resilience.
- Mr. Bell identified the following concerns:
 - More pandemics will occur.
 - Radiological issues.
 - Civil disturbance and cyber attack.
 - The need to integrate emergency plans.
- Mr. Fiskus reported that he is concerned with air quality in the county due to farms and other facilities.
- Ms. Abrams stated that the nation is looking for information regarding the upcoming solar eclipse, and that the Science, Technology & Advanced Manufacturing Park (STAMP) Mega-Site is next to the Nation's territory.
- Mr. Chimino is concerned about the lack of volunteers for fire departments across the county.
- Mr. Landis is concerned about long-term water infrastructure.
- Mr. Hens reported that snow and ice are the county's largest threats.
- Mr. Graff identified public safety concerns with the county's concert venue, college, and the NYS Thruway.

Overview of Hazard Mitigation

Mr. Subbio provided an orientation to hazard mitigation. He described the requirements of the Disaster Mitigation Act of 2000 (DMA 2000) as they relate to development of the Genesee County HMP. He also reviewed the NYS DHSES requirements for the HMP.

Project Scope Review

Mr. Subbio reviewed the project scope and phases of the HMP update.

Phase 1 – Planning Process

Mr. Subbio described the roles of the Steering Committee and the Planning Partnership. He summarized the change since the last HMP planning effort that school districts, authorities, and other districts will



MEETING NOTES

be treated as their own jurisdictions this time. There is a drainage district in the Town of Alabama, but it is not a taxing authority and will not be treated as a jurisdiction.

Phase 2 – Update the Risk Assessment

Mr. Subbio reviewed the list of hazards of concern, shown in the following list:

- Civil Unrest
- Dam Failure
- Drought
- Earthquake
- Epidemic
- Extreme Temperature
- Flood
- Hazardous Materials
- Severe Storm
- Severe Winter Storm
- Terrorism
- Transportation Accident
- Utility Interruption
- Wildfire

There will be a solar eclipse in April 2024, in which the path of totality passes through Genesee County. Most schools are going to be closed that day. There are rumors that there will be up to 1 million people coming to the county to view the eclipse. Public safety officials are most concerned about traffic during the event. Planning has been ongoing for over a year.

Mr. Subbio described the analysis that will be conducted for each hazard of concern.

The Planning Partnership and Tetra Tech will work together on the risk assessment. Once the risk assessment is complete, it will be presented to the Planning Partnership and general public for feedback.

Phase 3 – Public Involvement Strategy

Municipalities were asked to submit letters of intent to participate in the planning process. Mr. Subbio described the outreach methods that will be used during the planning process, including stakeholder surveys, public meetings, an online mapping survey tool for users to identify problems and problem areas in the county and a StoryMap website.

Mr. Subbio described the worksheets that will be used to gather information from participating jurisdictions. The following five worksheets will be distributed:

- Worksheet A – Hazard Event History
- Worksheet B – Capability Assessment
- Worksheet C – NFIP Floodplain Administrator Questionnaire
- Worksheet D – Mitigation Action Review
- Worksheet E – Building Permits

Phase 4 – Mitigation Strategy

The Steering Committee and Tetra Tech will develop the goals and objectives and then review them with the Planning Partnership. Tetra Tech and the County will facilitate a Mitigation Strategy Workshop. During the workshop, officials will work to further develop their jurisdictions' mitigation actions for inclusion in the HMP.

Each municipality will have its own annex in the HMP. Tetra Tech will assign a planner to each municipality to guide local officials through development of the annexes.

Phase 5 – Plan Maintenance

The Plan Maintenance section will define procedures for maintaining the HMP over the next five years. Tetra Tech will load each jurisdiction's mitigation actions into a software tool to facilitate the annual review process.



MEETING NOTES

Phase 6 – Plan Update and Deliverables

Throughout the planning process, Tetra Tech will develop the HMP document. The main body will profile the county, explain the planning process, include the risk assessment and mitigation strategy, and discuss maintenance of the plan. Each jurisdiction will have its own annex in the HMP, which will provide information specific to that jurisdiction.

The draft plan will be shared with the Planning Partnership for review and comment throughout the planning process. After making any required changes, Tetra Tech will post the HMP for public review. The public review period will be advertised and will last for 30 days. Tetra Tech will then conduct a public meeting with the Planning Partnership to gather feedback on the draft plan and make any required changes.

Phase 7 – Plan Review and Adoption

Tetra Tech will submit the draft for the State's formal review. NYS DHSES will review the draft. If changes are required, Tetra Tech will make the changes and resubmit the document to the State. After the State is satisfied with the draft, the State will forward it to Federal Emergency Management Agency (FEMA) Region II for review.

FEMA Region II will review the draft within 45 days, and Tetra Tech will make any required changes upon receipt of FEMA review comments. When FEMA is satisfied with the HMP, FEMA will grant the HMP "approvable pending adoption" status to indicate that it meets all requirements.

Project Schedule Review

Mr. Subbio reviewed the project schedule with the Planning Partnership. He stated that the draft plan will be completed in July 2024 to allow for FEMA review, adoption, and formal approval by January 2025. Interim milestones of the planning process include the following:

- The risk assessment will be complete by May 2024.
- The Mitigation Strategy Workshop will be conducted in mid-June 2024.

Next Steps

Mr. Subbio reviewed the following next steps in the HMP update process with attendees:

- The information-gathering worksheets will be sent to jurisdictional officials.
- Jurisdictional officials will gather and provide existing plans and ordinances to Tetra Tech's planners.
- Tetra Tech will complete the risk assessment.

With no further questions, Mr. Subbio thanked attendees for their time and participation.

The meeting adjourned at 10:50 a.m.



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership Kickoff Meeting

SIGN-IN

Wednesday, February 7, 2024 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Erik Lang / Zoning Officer	Pembroke	zoning@townofpembroke.org	409-3267
Jordan Yager	O-A CSD	JYager@OAH.nets.org	
Chad Bliss	Bataavia CSD	cbliss@bataaviacs.org	
Joselyn Fiskus	OACSD	jfiskus@oachovnets.org	585-948-5211
Frank Riccobono Director of Em. Com	GC Sher. H's Office	Frank.Riccobono@co-genesee.ny.us	585-815-3210
David Bell public Health Emergency Preparedness (PHED)	GO Health	david.bell@co-genesee.ny.us	585-813-3925
Tim Yager	GCDEM	Tim.Yager@Co.Genesee.NY.us	585 341-0078
Kate Hoffman	Pavilion Central School	khoffman@pavilioncsd.org	585-584-1024
Matt Landers	Genesee Co Mgrs Office	Matt.Landers@co.genesee.ny.us	(585) 344-2550 x2204
Felipe O'Hramani	Genesee Co. Planning	Felipe.O'Hramani@co.genesee.ny.us	(585) 815-7901





GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership Kickoff Meeting

SIGN-IN

Wednesday, February 7, 2024 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Don Laughlin	Town of ELBA		585 704 0154
Brad Smith	MCWA	BRAD.SMITH@MCWA.COM	585 261 2341
Joshua Graham	City of Batavia	JGraham@bataviany.gov	585-703-1454
Bill Kette	Village of LeRoy	bkette@villageofleeroy.org	585 217 1134
Gary Patnode	GCEMD	gary.patnode@co.genesee.ny.us	716-864-6240
Gabe Kellomb	LeRoy Rd	gkellomb@leeroyplanning.org	585-315-2776
Mark Masse	GCEDC	mmasse@gcedc.com	343-4866, ext. 17
Joseph Chimino	Village of Bergen	jchimino@villageofbergen.com	585-703-2875
Steve Savage	MCWA	Steve.Savage@mcwa.com	(585) 442-2000
Tammi Ferringer	GC	tammi.ferringer@co.genesee.ny.us	X2200





GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership Kickoff Meeting

SIGN-IN

Wednesday, February 7, 2024 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Christine Abrams	Tonawanda Seneca Nation	tonsenece@aol.com	(716) 542-4244
Ernie Fix	City of Batavia	efix@bataviannyny.com	(585) 345-6300
Laura Wadhams	County Highway	laura.wadhams@co.genesee.ny.us	585-344-8508





GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership Kickoff Meeting

SIGN-IN

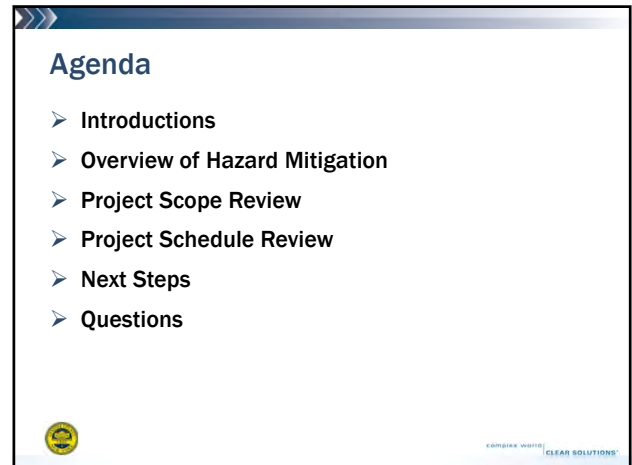
Wednesday, February 7, 2024 | 9:00 – 11:00 a.m.

NAME/TITLE	AGENCY/ORGANIZATION	E-MAIL ADDRESS	TELEPHONE
Joseph Grubb / Chief Deputy	GCSO	joseph.grubb@co.genesee.ny.us	409-7244
Brian Friday / Chief Deputy	GCSO	Brian.Friday@co.genesee.ny.us	(585) 815-3619
Craig Smith	GCHD	craig.smith@co.genesee.ny.us	585-344-8508
TIM HENS	GCHD	tim.hense@co.genesee.ny.us	344-8508
Tony Subbio / PM	Tetra Tech	tony.subbio@tetratech.com	717-839-5654

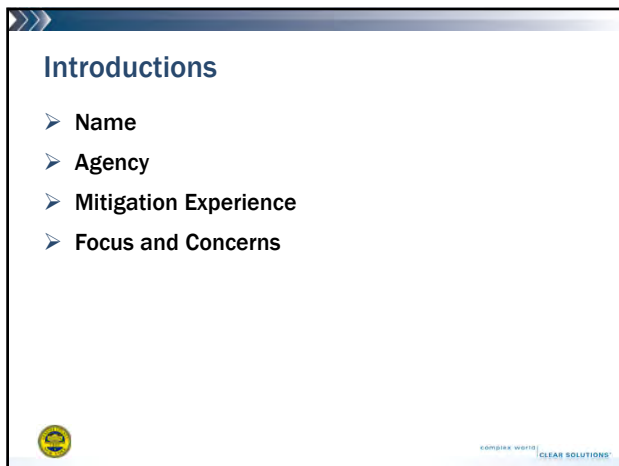




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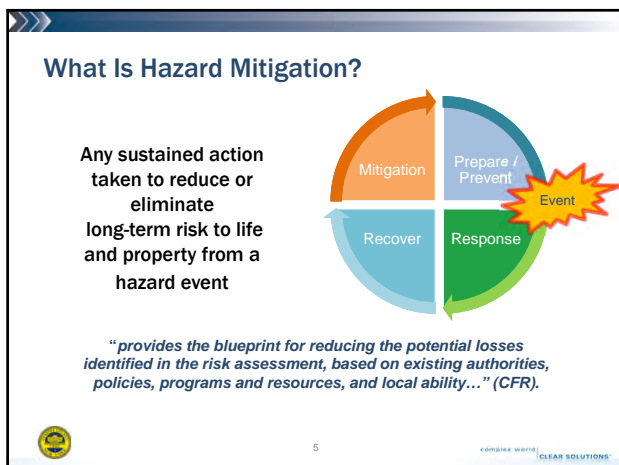
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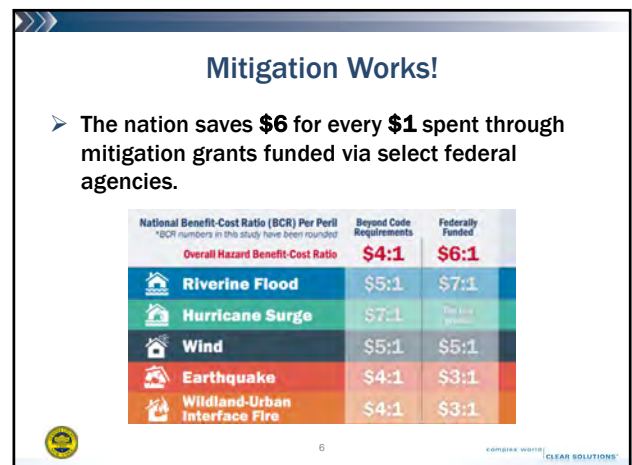
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6

Federal Requirements

- **Disaster Mitigation Act of 2000**
 - Risk assessment
 - Public outreach and participation
 - Process for update
 - Formal state and FEMA review
 - Documentation of acceptance by the community



COMPIRE WORLD CLEAR SOLUTIONS

7

New York State Requirements

- Assess critical facilities
- Include jurisdictional annexes
- Develop mitigation actions
- Post draft plan online



COMPIRE WORLD CLEAR SOLUTIONS

8



Project Scope Review

9

Project Scope Review

- **Phase 1 – Planning Process**
 - Steering Committee – Strategic oversight
 - Planning Partnership
 - Municipal officials
 - School districts
 - Other jurisdictions
 - Stakeholders
 - General public



COMPIRE WORLD CLEAR SOLUTIONS

10

Project Scope Review (Continued)

- **Phase 2 – Update the Risk Assessment**
 - **Hazards of Concern**

▪ Civil Unrest	▪ Flood	▪ Transportation Accident
▪ Dam Failure	▪ Hazardous Materials	▪ Utility Interruption
▪ Drought	▪ Severe Storm	▪ Wildfire
▪ Earthquake	▪ Severe Winter Storm	
▪ Epidemic	▪ Terrorism	
▪ Extreme Temperature		

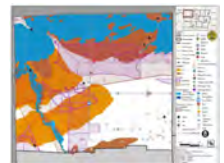


COMPIRE WORLD CLEAR SOLUTIONS

11

Project Scope Review (Continued)

- **Phase 2 – Update the Risk Assessment (Continued)**
 - **HAZUS-MH Analysis**
 - Earthquake: 500-year MRP event
 - Flood: 1-percent annual chance flood
 - Wind: 500-year MRP event
 - **Quantitative Analysis for Geographic Hazards**
 - **Review Risk Assessment with Planning Partnership (open to the public)**



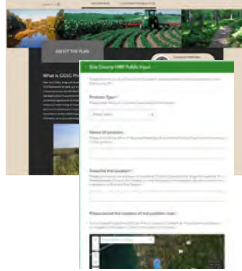
COMPIRE WORLD CLEAR SOLUTIONS

12

Project Scope Review (Continued)

➤ Phase 3 – Public Involvement Strategy

- Letter of Intent to Participate
- StoryMap Website
- Problem Identification Form
- Information Gathering Surveys
 - Individuals
 - Neighboring Counties
 - Stakeholders



COMPLEX WORLD CLEAR SOLUTIONS

13

Project Scope Review (Continued)

➤ Phase 3 – Public Involvement Strategy (continued)

- Planning Partnership Meetings (Open to the Public)
 - Risk Assessment Review
 - Plan Draft Review



COMPLEX WORLD CLEAR SOLUTIONS

14

Project Scope Review (Continued)

➤ Phase 3 – Public Involvement Strategy (continued)

- Jurisdictional Worksheets
 - Hazard Event History
 - Capability Assessment
 - NFIP Floodplain Administrator Questionnaire
 - Mitigation Action Review
 - Building Permits



COMPLEX WORLD CLEAR SOLUTIONS

15

Project Scope Review (Continued)

➤ Phase 4 – Mitigation Strategy

- Develop Goals and Objectives
- Assess Capabilities
- Conduct Mitigation Strategy Workshop
- Develop Annexes



COMPLEX WORLD CLEAR SOLUTIONS

16

Project Scope Review (Continued)

➤ Phase 5 – Plan Maintenance

➤ Phase 6 – Plan Update and Deliverables

- Develop the Document
- Review throughout the planning process
- Public Review
- Draft Plan Review Meeting (open to the public)



COMPLEX WORLD CLEAR SOLUTIONS

17

Project Scope Review (Continued)

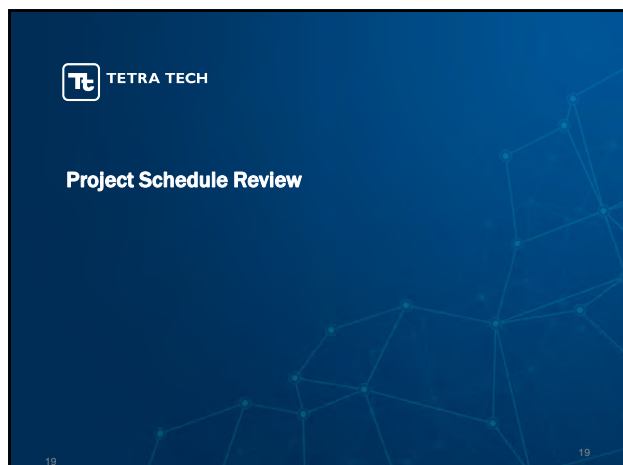
➤ Phase 7 – Plan Review and Adoption

- Submittal to the New York State Division of Homeland Security and Emergency Services (NYS DHSES)
- Update as Necessary
- Adoption
- FEMA Review
- Approval
- Final Deliverables

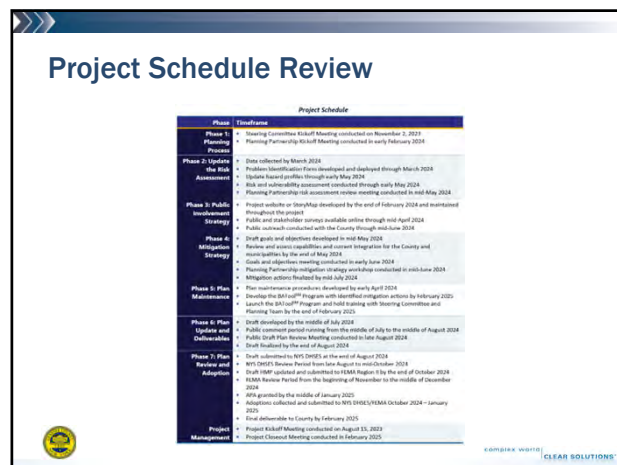


COMPLEX WORLD CLEAR SOLUTIONS

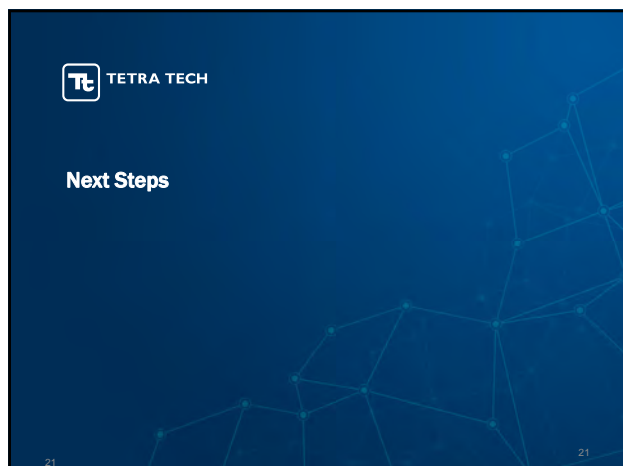
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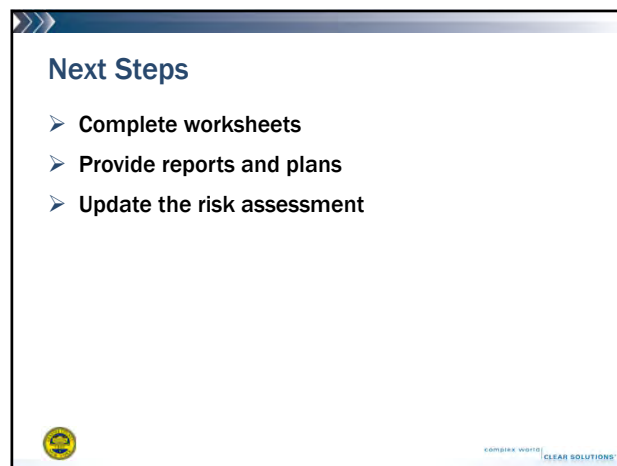
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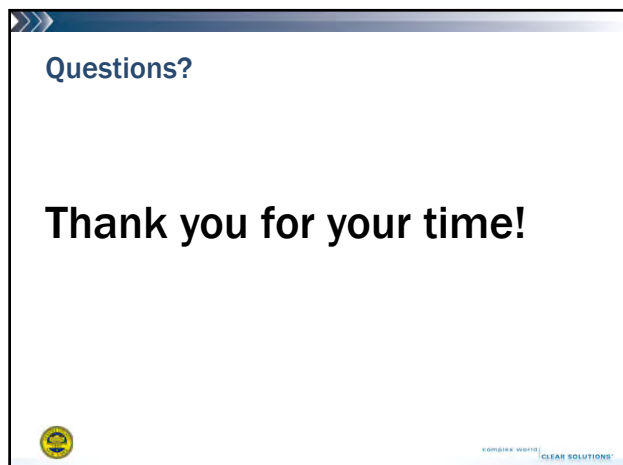
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21



22



23



24

Project Schedule

Phase	Timeframe
Phase 1: Planning Process	<ul style="list-style-type: none"> Steering Committee Kickoff Meeting conducted on November 2, 2023 Planning Partnership Kickoff Meeting conducted in early February 2024
Phase 2: Update the Risk Assessment	<ul style="list-style-type: none"> Data collected by March 2024 Problem Identification Form developed and deployed through March 2024 Update hazard profiles through early May 2024 Risk and vulnerability assessment conducted through early May 2024 Planning Partnership risk assessment review meeting conducted in mid-May 2024
Phase 3: Public Involvement Strategy	<ul style="list-style-type: none"> Project website or StoryMap developed by the end of February 2024 and maintained throughout the project Public and stakeholder surveys available online through mid-April 2024 Public outreach conducted with the County through mid-June 2024
Phase 4: Mitigation Strategy	<ul style="list-style-type: none"> Draft goals and objectives developed in mid-May 2024 Review and assess capabilities and current integration for the County and municipalities by the end of May 2024 Goals and objectives meeting conducted in early June 2024 Planning Partnership mitigation strategy workshop conducted in mid-June 2024 Mitigation actions finalized by mid-July 2024
Phase 5: Plan Maintenance	<ul style="list-style-type: none"> Plan maintenance procedures developed by early April 2024 Develop the BAToolSM Program with identified mitigation actions by February 2025 Launch the BAToolSM Program and hold training with Steering Committee and Planning Team by the end of February 2025
Phase 6: Plan Update and Deliverables	<ul style="list-style-type: none"> Draft developed by the middle of July 2024 Public comment period running from the middle of July to the middle of August 2024 Public Draft Plan Review Meeting conducted in late August 2024 Draft finalized by the end of August 2024
Phase 7: Plan Review and Adoption	<ul style="list-style-type: none"> Draft submitted to NYS DHSES at the end of August 2024 NYS DHSES Review Period from late August to mid-October 2024 Draft HMP updated and submitted to FEMA Region II by the end of October 2024 FEMA Review Period from the beginning of November to the middle of December 2024 APA granted by the middle of January 2025 Adoptions collected and submitted to NYS DHSES/FEMA October 2024 – January 2025 Final deliverable to County by February 2025
Project Management	<ul style="list-style-type: none"> Project Kickoff Meeting conducted on August 15, 2023 Project Closeout Meeting conducted in February 2025



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Steering Committee Risk Assessment Meeting – AGENDA
MEETING DATE/TIME: December 9, 2024 – 2:00 pm – 3:00 pm



Virtual Meeting via Teams

Meeting Link: [click here](#)

Meeting ID: 230 780 385 790

Passcode: HZ3TL9RX

Dial in by phone

+1 213-357-2812

Phone conference ID: 645 303 11#

- 1. Opening Remarks**
- 2. Project Status** - where we are in the process, public outreach
- 3. Risk Assessment Overview**
 - Results of risk assessment for each hazard
 - Hazards of concern risk ranking
 - How will this information be used in the HMP?
- 4. SWOO**
- 5. Feedback and Input**
- 6. Next Steps**
- 7. Questions**

Genesee County Project Contact

Timothy Yaeger; Director
Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contacts

Jessica Stokes, MSEM, NJCEM; Project Manager
(973) 630-8017 | jessica.stokes@tetrattech.com

Emily Vassallo; Lead Planner
(717)-839-5655 | emily.vassallo@tetrattech.com

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Steering Committee Risk Assessment Meeting | Meeting Minutes



Purpose of Meeting:	Steering Committee Risk Assessment Meeting	
Location of Meeting:	Virtual via Teams	
Date of Meeting:	December 9, 2024 @ 2:00 P.M.	
Attendees:	<ul style="list-style-type: none"> • Genesee County Manager's Office <ul style="list-style-type: none"> ○ Tammi Ferringer, Deputy County Manager • Genesee County Emergency Management Services <ul style="list-style-type: none"> ○ Tim Yaeger, Coordinator ○ Gary Patnode, Deputy Coordinator • Genesee County Planning Department <ul style="list-style-type: none"> ○ Felipe Oltramari, Director • Genesee County Sheriff's Office <ul style="list-style-type: none"> ○ Brian Frieday, Chief Deputy ○ Joe Graff, Chief Deputy ○ Frank Riccobono, Director of Emergency Communications • Genesee County Highway Department <ul style="list-style-type: none"> ○ Craig Smith, Deputy Highway Superintendent, Genesee County Highway Department 	<ul style="list-style-type: none"> • Genesee County Economic Development Corporation <ul style="list-style-type: none"> ○ Mark Masse, Senior VP of Operations • Genesee County Public Health <ul style="list-style-type: none"> ○ Paul Pettit, Public Health Director • Genesee County Soil & Water Conservation District <ul style="list-style-type: none"> ○ Jared Elliott, Senior Field Manager • Batavia (C) <ul style="list-style-type: none"> ○ Josh Graham, Fire Chief • Tetra Tech <ul style="list-style-type: none"> ○ Jessica Stokes, Project Manager ○ Emily Vassallo, Lead Planner
Agenda Summary:	The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the hazard ranking, and introduce the SWOO exercise to the Steering Committee.	
Item No.	Description	Action item(s):
1	Introductions	-
2	Project Status <ul style="list-style-type: none"> • Review Municipal Participation <ul style="list-style-type: none"> ○ Identify outstanding worksheets • Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Stakeholder and neighboring municipalities surveys have been distributed ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors ○ Socially Vulnerable Populations 	Steering Committee <ul style="list-style-type: none"> • Post links on social media and department/agency websites • Make efforts to reach out to general public, stakeholders, neighbors, and socially vulnerable populations • Encourage jurisdictional participation
3	Risk Assessment Overview <ul style="list-style-type: none"> • Risk is defined as a function of: <ul style="list-style-type: none"> ○ Hazard <ul style="list-style-type: none"> ▪ Source of potential danger or adverse condition ○ Exposure <ul style="list-style-type: none"> ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability <ul style="list-style-type: none"> ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) <ul style="list-style-type: none"> ▪ Plans/policies ▪ Response/recovery ○ Financial resources 	-

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Steering Committee Risk Assessment Meeting | Meeting Minutes



4	Risk Assessment Results <ul style="list-style-type: none"> Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. 	-
5	Hazard Rankings <ul style="list-style-type: none"> The calculated probability of a hazard occurring based on historical data <i>Impacts to <u>people</u>, <u>property</u>, and the <u>economy</u></i> based on GIS data and analysis of exposure. The degree to which <i><u>climate change</u></i> will affect future occurrences based on best available data. The degree to which existing <i><u>capabilities</u></i> (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. Ranking: <ul style="list-style-type: none"> High: Severe Winter Storm, Severe Storm, Utility Interruption, Transportation Accident Medium: Wildfire, Flood, Extreme Temperature, Epidemic, Hazardous Materials, Dam Failure, Drought Low: Terrorism, Civil Unrest, Earthquake Introduced Hazard Ranking Worksheet 	-
6	Strengths, Weaknesses, Obstacles, and Opportunities (SWOO) <ul style="list-style-type: none"> Strengths – what the County and communities do well; things upon which we can capitalize. Weaknesses – what can be done better; what can be strengthened. Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues). Opportunities - actions or projects to mitigate issues or improve resilience. 	-
7	Next Steps <ul style="list-style-type: none"> Share information about the HMP Update via social media, community groups, and networks Attend the Planning Partnership/Public Risk Assessment Meeting on Tuesday, December 10 @ 4:00 p.m. Complete SWOO 	-
8	Questions/Discussion <ul style="list-style-type: none"> Tim: Question on if we/GIS received the new preliminary/draft FIRMs. Gary: 58,204 is 2022 ACS population for the County. Tim: More of a focus on cyber-terrorism in the Terrorism hazard profile Tim: Fix spelling of jurisdiction County agreed with all of the hazard rankings 	Tetra Tech Follow up with GIS about ACS numbers and flood data maps used



TETRA TECH

Genesee County, NY Hazard Mitigation Plan – 2025 Update


**Steering Committee Risk Assessment
Meeting**

December 9, 2024

While waiting for the meeting to start,
please enter your name, title, and
jurisdiction in the chat!



Today's Agenda

1. Welcome and Introductions
 2. Project Status
 3. Risk Assessment Overview
 4. Feedback and Input
 5. Next Steps
 6. Questions/Wrap Up
- 



Project Status



Municipal Participation Status

- To date, we have not received all municipal worksheets. Your assigned Tetra Tech planner will be sending a summary of information needed.

Municipality	Assigned Planner
Town of Alabama	Emily Vassallo
Town of Alexander	Grace Altenburg
Village of Alexander	Grace Altenburg
Village of Attica	Grace Altenburg
City of Batavia	Stacy Umbel
Town of Batavia	Stacy Umbel
Town of Bergen	Emily Vassallo
Village of Bergen	Emily Vassallo
Town of Bethany	Grace Altenburg
Town of Byron	Emily Vassallo

Municipality	Assigned Planner
Village of Corfu	Stacy Umbel
Town of Darien	Grace Altenburg
Town of Elba	Emily Vassallo
Town of Le Roy	Stacy Umbel
Village of Le Roy	Stacy Umbel
Town of Oakfield	Emily Vassallo
Village of Oakfield	Emily Vassallo
Town of Pavilion	Grace Altenburg
Town of Pembroke	Stacy Umbel
Town of Stafford	Stacy Umbel

Public Outreach Strategy



- Public Outreach Toolkit
 - Social media templates and posts
 - Press release templates
 - Printable materials
- Surveys
 - Stakeholders
 - Neighboring communities
 - Public
- County HMP Website
 - <https://www.geneseecountynyhmp.com/>



Risk Assessment Overview





What is Risk?

Risk is defined as a function of :

- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources





Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Civil Unrest



- Civil unrest can occur anywhere within Genesee County.
- Damage to or disruption of operations at government facilities could profoundly impact Genesee County's population.
- More common to see civil disturbances occur at government facilities, landmarks, prisons, and universities where crowds can easily gather in reference to a common issue or message.
- The severity of civil disturbance coincides with the level of public unrest and outrage. Civil disturbances often arise from protests on political issues, unions, institutional uprisings, or even from large celebrations that become out of control.



Dam Failure



Dam failures in Genesee County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

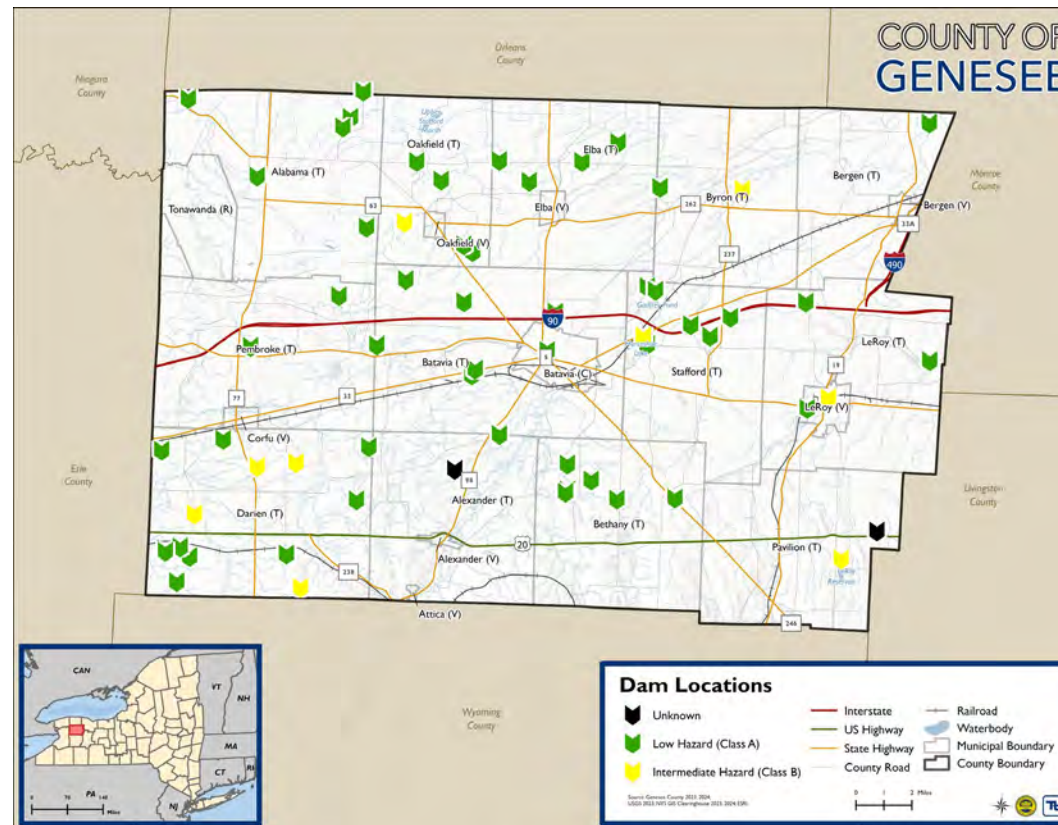
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- 8 Intermediate Hazard
- 50 Low Hazard
- 2 Unknown/Not Ranked Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dams by Class in Genesee County



Climate Change Impacts

Genesee County is expected to experience increased precipitation and more frequent, intense storms. Excessive rainfall can cause a dam to overflow since these structures are designed partly based on assumptions about river flow and precipitation patterns. More frequent and intense precipitation leads to more intense dam overtopping, potentially affecting a larger area and producing stronger water velocities that exacerbate damages to general building stock and critical facilities.

Drought



Droughts can affect Genesee County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population (2022 ACS) Exposed

60,339

(100%)

The entire County is susceptible

Climate Change Impacts

Short-term seasonal droughts lasting weeks or months could increase, especially in the summer. This is because of precipitation falling in more intense bursts with longer dry spells in between and higher temperatures in the summer causing more water to evaporate. The potential increase of short-term droughts may impact water systems, resulting in water shortages.

Drought Damaged Field



Hazard Types



Meteorological



Hydrological



Agricultural



Socioeconomic

Earthquake



Earthquakes in Genesee County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Residential buildings are the most impacted structure type in terms of incurred damages, followed by commercial buildings.

Population Exposed

11,523

Hazard Types

Surface Faulting

Ground Motion

Liquefaction

Tectonic Deformation

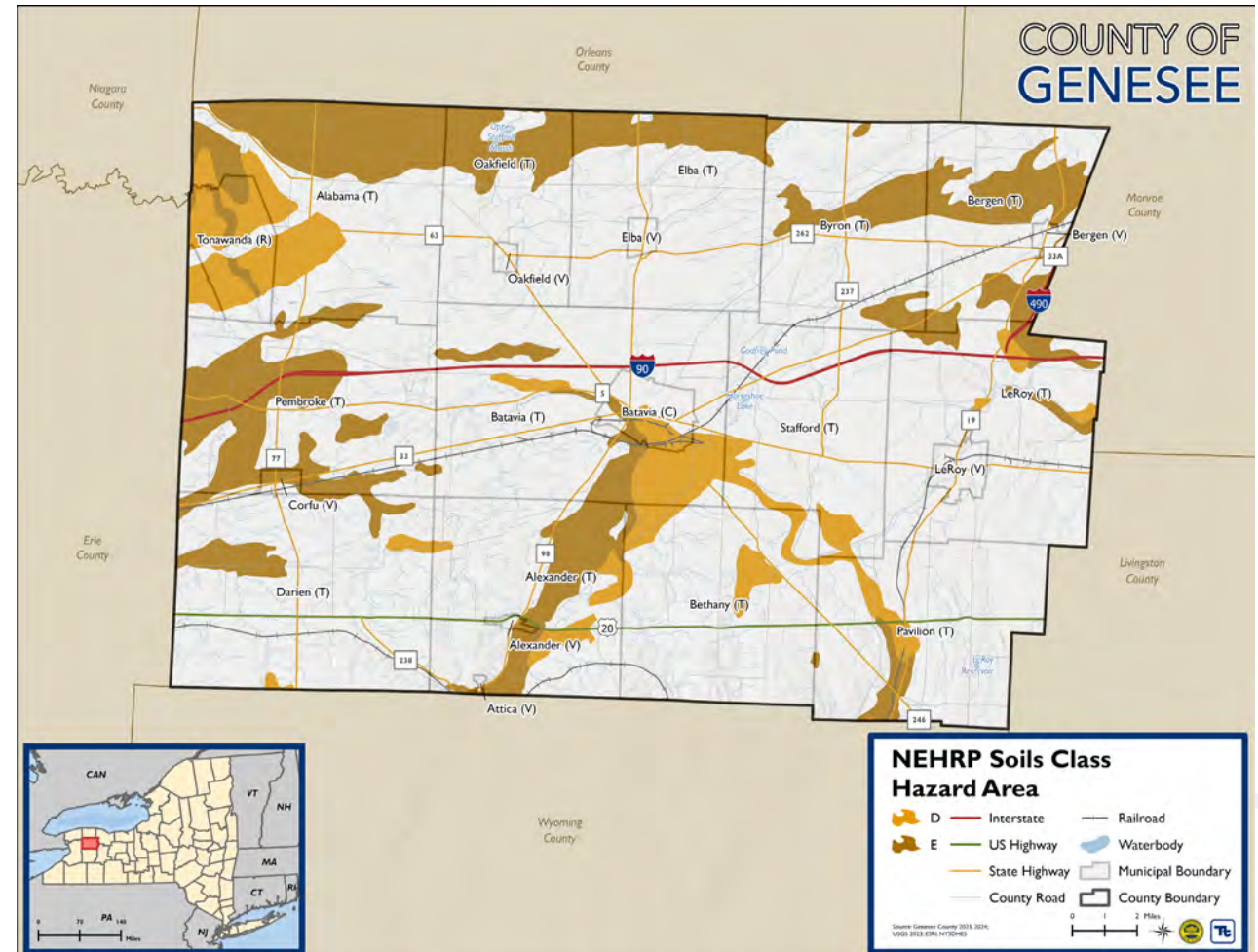
Number of Buildings Exposed

6,235

Building Replacement Cost Value

\$4,382,723,608

NEHRP (D & E) Soils in Genesee County



Epidemics



Epidemics can impact the entirety of Genesee County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible. As population density increases in the County, so too will the probability of a disease outbreak event to occur.

Vulnerable Populations

- Healthcare providers and first responders have an increased risk of exposure due to their frequent contact with infected populations.
- The elderly and immunocompromised individuals may have increased vulnerability to becoming infected or experience exacerbated impacts depending upon the disease.

Climate Change Impacts

There has been discussion that rising temperatures will increase the number of mosquitoes that can transmit disease among humans. Furthermore, the increase in projected precipitation may lead to larger areas of pooling water, creating a more favorable environment for mosquito habitats.

COVID-19 Cases Per Day in Genesee County, March 2020 – May 2023



COVID-19 Deaths Per Day in Genesee County, March 2020 – May 2023





Extreme Temperature

Extreme temperature includes both heat and cold events, which affects the entire County including, human health and commercial/agricultural businesses. Extreme temperature events can have primary and secondary effects on infrastructure.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

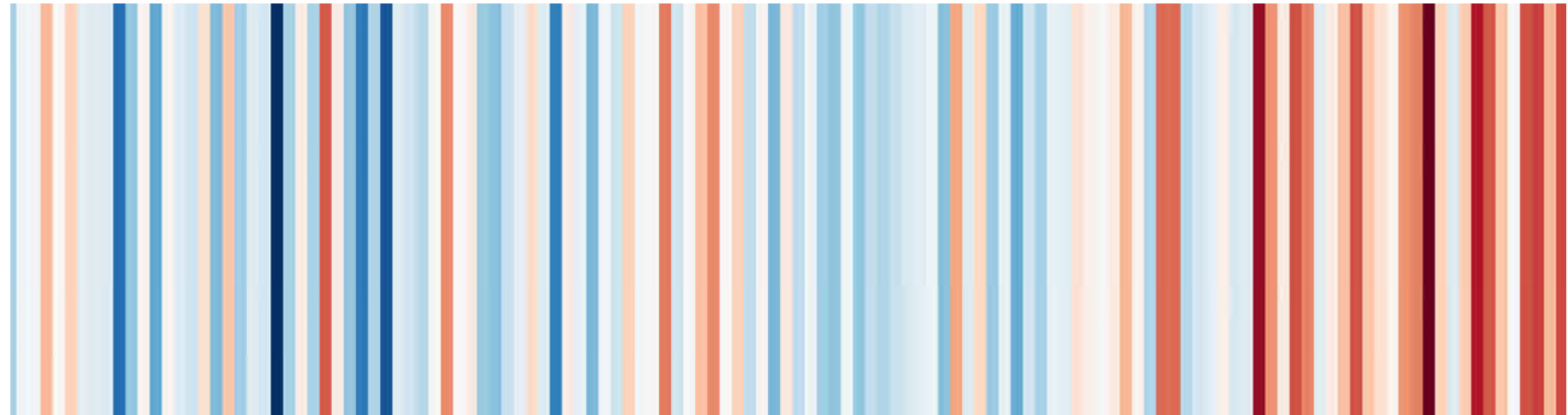
Occurrences Between 2007 and 2024

- Extreme Cold – 3 occurrences
- Cold/Wind Chill – 29 occurrences
- Extreme Heat – 23 occurrences

Climate Change Impacts

Evidence shows that extremely hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades.

Climate Stripes for Genesee County



Annual temperature in Genesee County (1895-2023) arranged from left to right. Each line shows a given year's temperature or precipitation compared to the 20th-century average. The darker the red or blue, the warmer or cooler the year.

Flood



Floods can happen almost anywhere in County but tend to occur in and around areas near existing bodies of water. Sloped land in the County results in flowing water moving down steeper gradients and being naturally or artificially channelized through valleys and gullies.

Population Exposed

3,800

In 1% Annual Chance Flood Area

5,057

In 0.2% Annual Chance Flood Area

Land Exposed to Flood
Hazard (acres)

38,861

In 1% Annual Chance Flood Area

39,312

In 0.2% Annual Chance Flood Area

Flood Building Replacement Cost Value

\$1,303,600,253

In 1% Annual Chance Flood Area

\$1,773,285,352

In 0.2% Annual Chance Flood Area

Number of Buildings Exposed

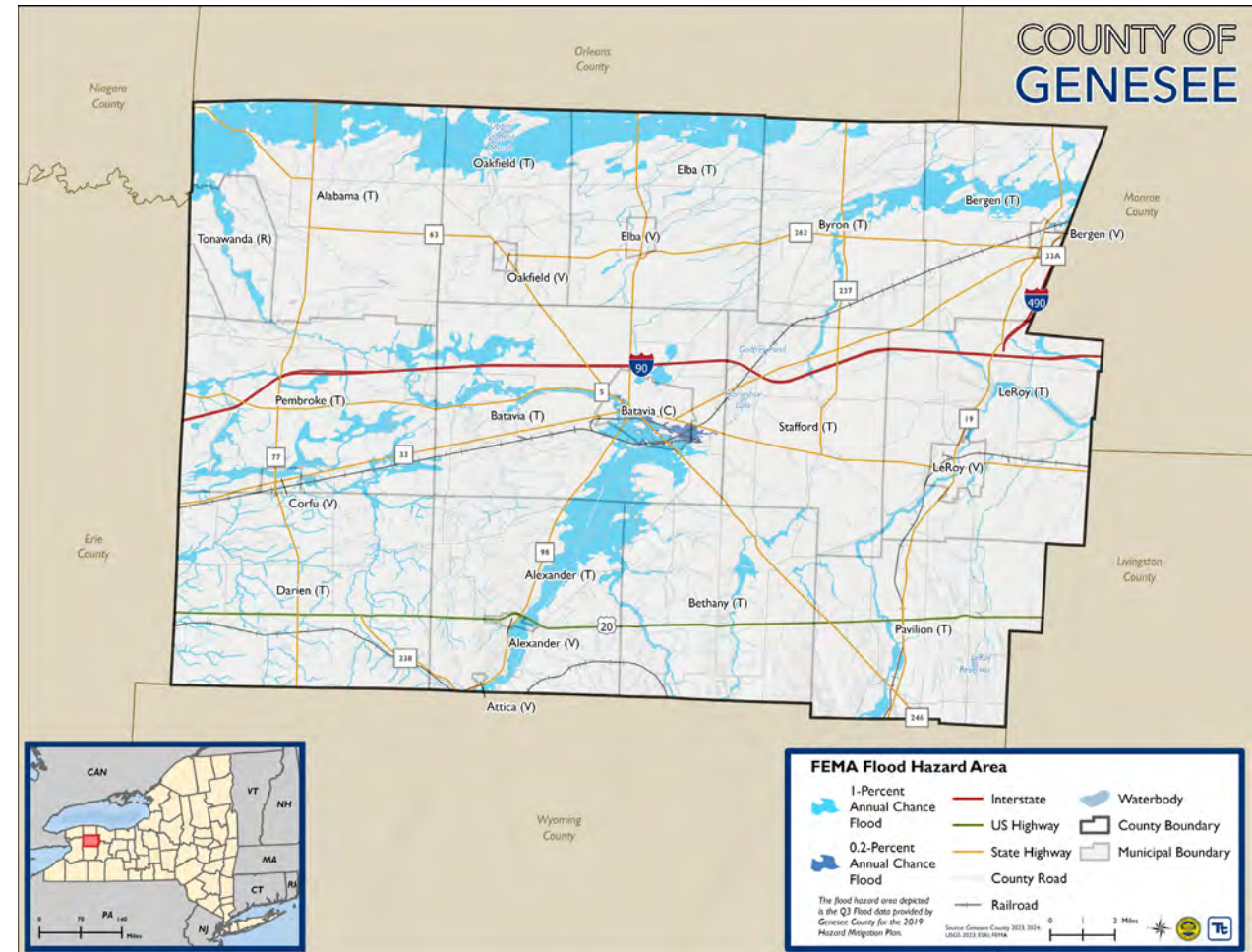
1,774

In 1% Annual Chance Flood Area

2,285

In 0.2% Annual Chance Flood Area

FEMA Flood Hazard Areas



Hazardous Materials



A hazardous materials incident may occur in transit or at a fixed facility. Release of certain products can adversely impact the general population, ranging from evacuations to personal injury and even death. Moreover, any release can compromise the local environment through contamination of soil, groundwater, or local flora and fauna.

Population Exposed

44,985

Within 0.5 miles of a major highway

19,115

Within 0.5 miles of a rail line

48,678

Unique radius for SARA Sites

Number of Buildings Exposed

21,917

Within 0.5 miles of a major highway

9,001

Within 0.5 miles of a rail line

25,720

Unique radius for SARA Sites

Community Lifelines Exposed

1,590

Within 0.5 miles of a major highway

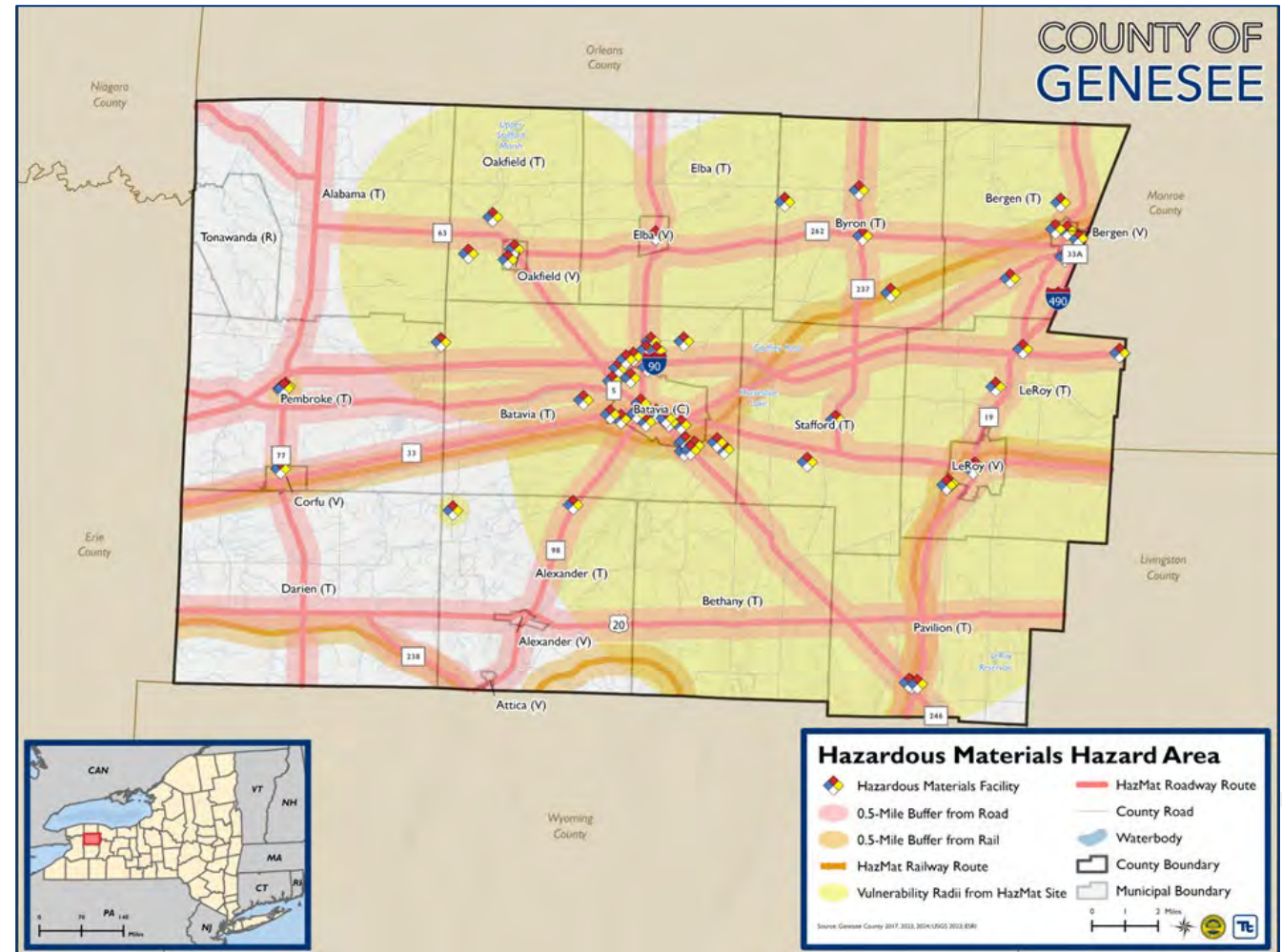
689

Within 0.5 miles of a rail line

1,829

Unique radius for SARA Sites

Hazardous Materials Hazard Areas in Genesee County



Severe Storm



Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Notable Occurrences

A strong October storm produced 1-3 inches of rain and wind gusts of 61 mph which produced substantial property damage, road closures and power outages. A total of \$575,000 in property damages were reported.

Population (2022 ACS) Exposed

60,339
(100%)

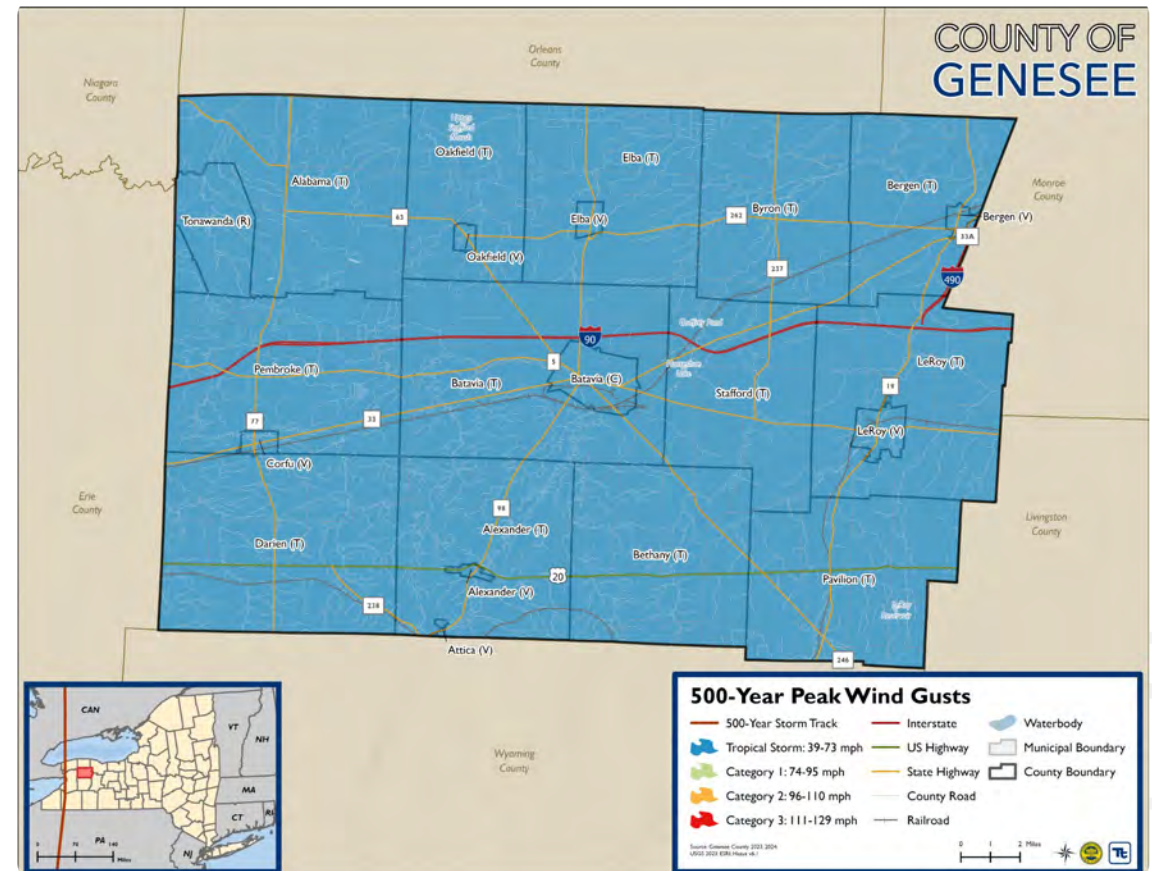
The entire County is susceptible

Hazard Types

- ### Potential Impacts
- Power Outages
 - Traffic Accidents
 - Downed Trees
 - Property Damage
 - Personal Injury / Loss of Life

- High Wind
- Tornado
- Thunderstorm
- Lightning
- Hail
- Hurricanes/Tropical Cyclones

500-Year Peak Wind Gusts in Genesee County



Severe Winter Storm



Severe winter weather can occur anywhere in the County and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population (2022 ACS) Exposed

60,339

(100%)

The entire County is susceptible

Snow Removal from Severe Winter Storm Event



Notable Occurrence

A winter storm in November 2022 resulted in \$500,000 in property damages due to a barn collapsing in the Town of Darien due to the weight of the snow.

Hazard Types

- Heavy Snow
- Blizzard
- Ice Storm
 - Sleet
 - Freezing Rain

Climate Change Impacts

As winters continue to warm, ice is projected to become rarer in the upcoming decades, which may lead to more lake-effect snow in the short term due to additional moisture available in the atmosphere to create precipitation. Over the long term, however, more of this is likely to fall as rain.

Terrorism



- Terrorism can occur anywhere within Genesee County.
- Damage to or disruption of operations at government facilities could profoundly impact Genesee County's population, even if the terrorism event is relatively small-scale.
- While the probability of a terrorist attack is possible, the impacts can vary in severity from nominal to catastrophic and are contingent upon the method of the attack, the volume of force applied, and the population density of the attack site.



Transportation Accident



Transportations accidents can occur anywhere in the County at any time. Transportation accidents are incidents involving highway, air, and rail travel, resulting in death, serious injury, property loss or damage or situations that cause delay or closure.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

Hazard Types



Vehicular



Aviation



Rail

Transportation Overview

Interstate Highway	64 mi.
County Roads	261.08 mi.
Local Roads	605 mi.
Total miles of roads	1,129 mi.
Rail Freight	65 mi.
Rail Passenger	30 mi.
Civil Use and Seaplane Airports	1
Other airports	6
Total Airports	7
Bridges in fair condition	86
Bridges in good condition	50
Bridges in poor condition	27
Total Bridges	163

2023 Transportation Accidents

2,135

Vehicle

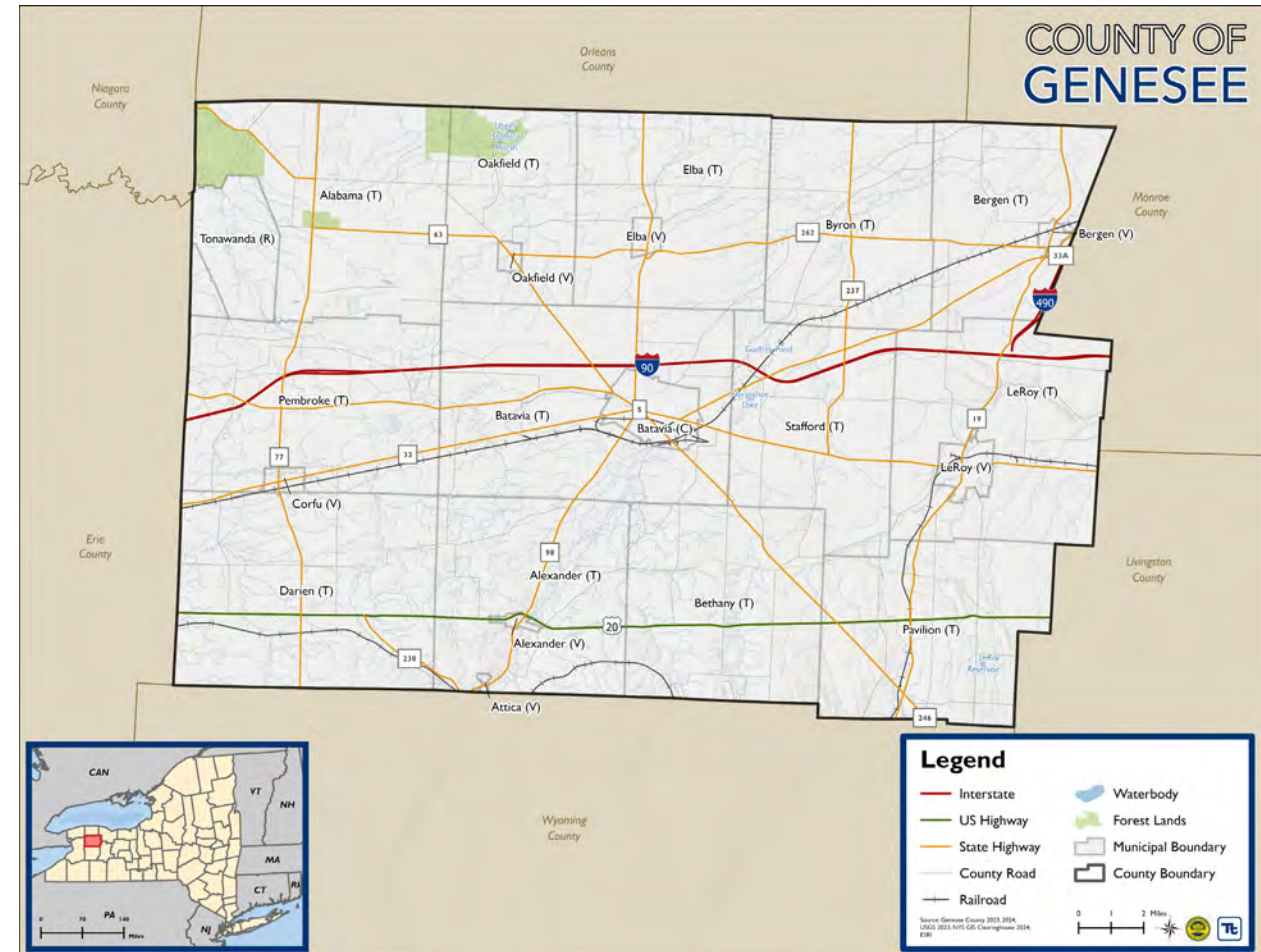
0

Aviation

1

Rail

Transportation Routes in Genesee County





Utility Interruption

Utility interruption can occur anywhere in the County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions which may result in utility interruptions.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

Vulnerable Populations

Utility interruptions most severely affect individuals with access and functional needs (such as children, the elderly, and individuals with special medical needs). Special medical equipment will not function without power.

Climate Change Impacts

New York State has warmed more rapidly than the national average, and winter is warming faster than other seasons. Evidence shows that hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades which may impact utilities in the County.

Power Restoration



Cascading Impacts



Fires

Temperature-Related Illnesses



Traffic Accidents

Loss of Food, Water, and Medical Resources



Wastewater and Potable Water Utility Interruption

Wildfire



Wildfires can occur at any time of the year but are most likely in Genesee County during a drought, and can occur in fields, grass, and brush as well as in the forest itself. Under dry conditions or droughts, wildfires have the potential to burn forests as well as croplands. Wildfires can have impacts on critical services, utilities, and properties, and may cause injury.

Population Exposed

4,371

WUI Interface Hazard Area

7,875

WUI Intermix Hazard Area

Lifelines Exposed

311

WUI Interface Hazard Area

392

WUI Intermix Hazard Area

Number of Buildings Exposed

3,299

WUI Interface Hazard Area

4,355

WUI Intermix Hazard Area

Building Replacement Cost Value

\$1,501,604,160

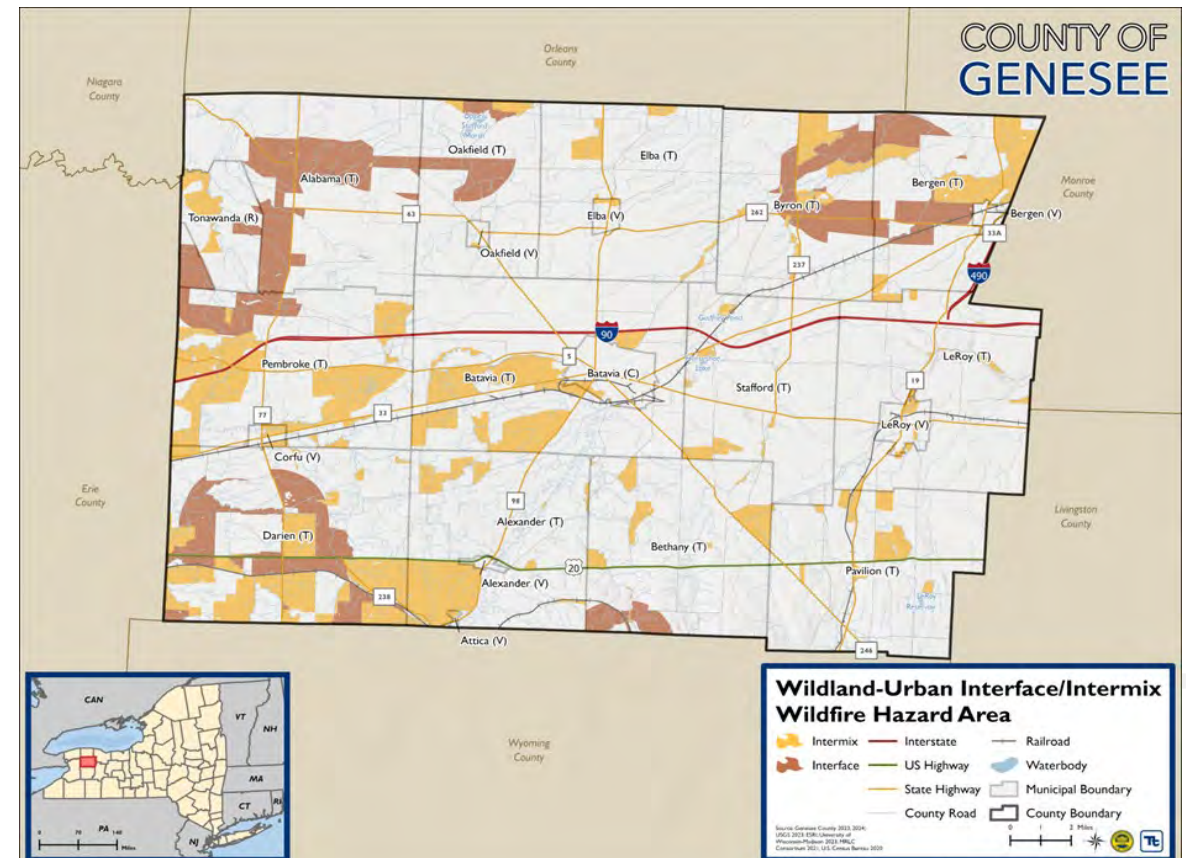
WUI Interface Hazard Area

\$1,805,572,036

WUI Intermix Hazard Area

Climate Change Impacts
Genesee County can expect warmer and drier conditions which may increase the frequency and intensity of wildfires. Higher temperatures are expected to increase the evaporation rates from land and water. These changes have the potential to lead to more frequent and severe droughts, which, in turn, may increase the likelihood of wildfires.

Wildfire Urban Intermix/Interface for Genesee County





Hazard Rankings

Review the calculated hazard rankings and provide your feedback.



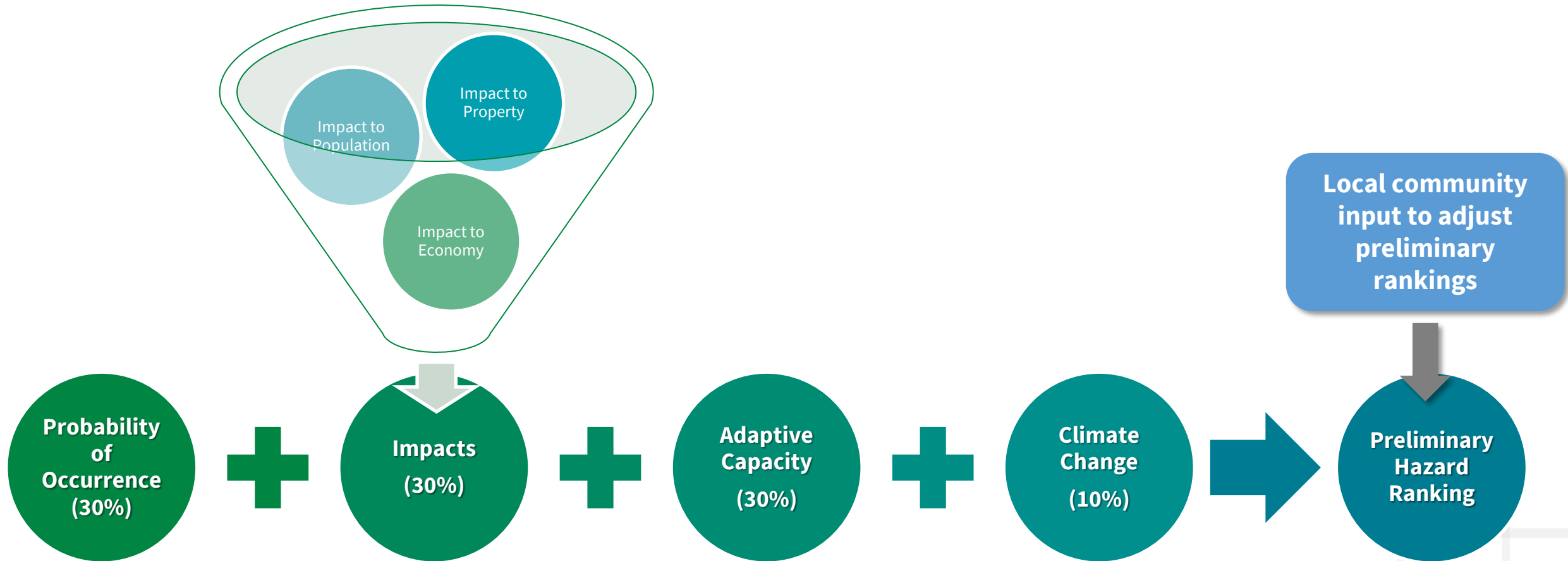
Preliminary Hazard Ranking Methodology

- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which climate change will affect future occurrences based on best available data.
- The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.





Preliminary Hazard Ranking Formula





Preliminary Risk Ranking (County)

High

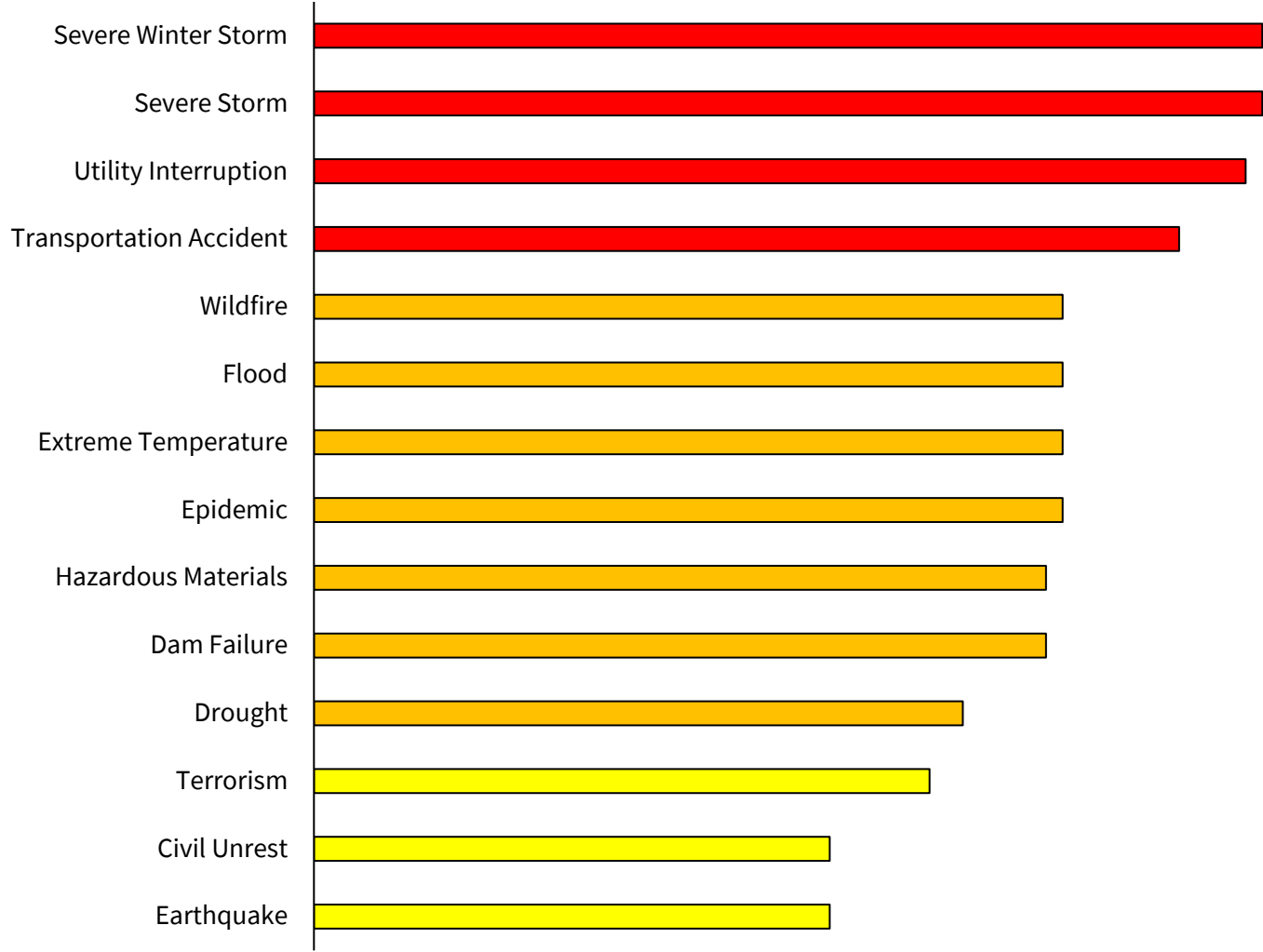
- Severe Winter Storm
- Severe Storm
- Utility Interruption
- Transportation Accident

Medium

- Wildfire
- Flood
- Extreme Temperature
- Epidemic
- Hazardous Materials
- Dam Failure
- Drought

Low

- Terrorism
- Civil Unrest
- Earthquake



Review Preliminary Rankings



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

Complete this worksheet and return to Stacy Umbel (stacy.umbel@tetratech.com) by Friday, December 20

Municipality: _____
Name/Title of Individual
Completing Worksheet: _____

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. The calculated probability of a hazard occurring based on historical data.
2. Impacts to people, property, and the economy based on GIS data and analysis of exposure.
3. The degree to which climate change will affect future occurrences based on best available data.
4. Adaptive Capacity, which is the ability your community has to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness.

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for your community. Please review the calculated rankings and indicate whether or not you want to adjust the ranking. If you are changing the ranking, please provide detail as to why you are changing the ranking. **REMEMBER for every hazard of concern, you need at least one mitigation action.**

Continued on next page.



Genesee County Hazard Mitigation Plan



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Genesee County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazards of Concern

Hazard	Preliminary Ranking	Agree with preliminary ranking (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Civil Unrest	Low		
Dam Failure	Medium		
Drought	Medium		
Earthquake	Low		
Epidemic	Medium		
Extreme Temperature	Medium		
Flood	Low		
Hazardous Materials	Medium		
Severe Storm	High		
Severe Winter Storm	High		
Terrorism	Low		
Transportation Accident	High		
Utility Interruption	High		
Wildfire	High		



Genesee County Hazard Mitigation Plan



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

What is Adaptive Capacity?

Adaptive capacity describes a jurisdiction's current ability to protect from or withstand a hazard event.

- **Weak** adaptive capacity means the jurisdiction does not have the capability to effectively respond, which leads to an increase in vulnerability. Examples include weak/outdated/inconsistent plans, policies, codes/ordinances in place, no redundancies, limited to no deployable resources, limited capabilities to respond, long recovery.
- **Moderate** adaptive capacity means minimum requirements are in place, moderate capabilities; mitigation measures are identified but not implemented widespread; jurisdiction can recover but needs outside resources.
- **Strong** adaptive capacity means the jurisdiction does have the capability to effectively respond, plans/policies exceed minimum requirements; deployable resources all of which decreases vulnerability.

Table 2. Adaptive Capacity

Hazard	Preliminary Ranking	What should we indicate for your community's adaptive capacity for each hazard?
Civil Unrest	Moderate	
Dam Failure	Moderate	
Drought	Moderate	
Earthquake	Moderate	
Epidemic	Moderate	
Extreme Temperature	Moderate	
Flood	Moderate	
Hazardous Materials	Moderate	
Severe Storm	Moderate	
Severe Winter Storm	Moderate	
Terrorism	Moderate	
Transportation Accident	Moderate	
Utility Interruption	Moderate	
Wildfire	Moderate	

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



Genesee County Hazard Mitigation Plan

STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)



Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)



- The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Genesee County HMP. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. Look at the following for each hazard of concern:
 - Strengths – what your jurisdiction does well; things upon which can be capitalized on;
 - Weaknesses – what can be done better; what can be strengthened;
 - Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
 - Opportunities - actions or projects to mitigate issues or improve resilience.
- Return this sheet to Stacy Umbel (Stacy.Umbel@tetrattech.com) at Tetra Tech.

The screenshot shows a worksheet titled "Genesee County / Hazard Mitigation Plan 2025 Update: SWOO". At the top, it says "Update this worksheet and return this worksheet to Stacy Umbel at Stacy.Umbel@tetrattech.com". Below this, there are fields for "Name/Title of Individual Completing Worksheet:" and "Jurisdiction:". The main section is titled "STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)". It explains the purpose of the SWOO and lists four categories: Strengths, Weaknesses, Obstacles, and Opportunities. Below this, there is a table with four rows, each corresponding to one of these categories. The first row is labeled "Civil Unrest" and "Strengths". The other three rows are labeled "Weaknesses", "Obstacles", and "Opportunities". At the bottom, there is a Tetra Tech logo and the text "Genesee County Hazard Mitigation Plan".

STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)	
The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Genesee County Hazard Mitigation Plan. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. The opportunities developed from this process will serve as the basis for our catalog of potential mitigation alternatives. The alternatives will address our risks, meet our planning goals, and fall within our capabilities. We need to look at the following for each hazard of concern:	
<ul style="list-style-type: none">• Strengths – what the County and communities do well; things upon which we can capitalize;• Weaknesses – what can be done better; what can be strengthened;• Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and• Opportunities - actions or projects to mitigate issues or improve resilience.	
Civil Unrest	Strengths
	Weaknesses
	Obstacles
	Opportunities



Next Steps

- Share information about the HMP Update via social media, community groups, and networks
- Complete SWOO exercise





Questions?

Genesee County Project Contact

Timothy Yaeger, Director | Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com

Thank
You!



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Planning Partnership Risk Assessment Meeting – AGENDA
MEETING DATE/TIME: December 10, 2024 – 4:00 pm – 5:00 pm



Virtual Meeting via Teams

Meeting Link: [click here](#)

Meeting ID: 257 319 474 738

Passcode: wo2qj65E

Dial in by phone

+1 213-357-2812

Phone conference ID: 770 724 055#

- 1. Opening Remarks**
- 2. Project Status** - where we are in the process, public outreach
- 3. Risk Assessment Overview**
 - Results of risk assessment for each hazard
 - Hazards of concern risk ranking
 - How will this information be used in the HMP?
- 4. SWOO**
- 5. Feedback and Input**
- 6. Next Steps**
- 7. Questions**

Somerset County Project Contact

Timothy Yaeger; Director

Genesee County Office of Emergency Management

(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contacts

Jessica Stokes, MSEM, NJCEM; Project Manager

(973) 630-8017 | jessica.stokes@tetrattech.com

Emily Vassallo; Lead Planner

(717)-839-5655 | emily.vassallo@tetrattech.com

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Planning Partnership Risk Assessment Meeting | Meeting Minutes



Purpose of Meeting:	Planning Partnership Risk Assessment Meeting	
Location of Meeting:	Virtual via Teams	
Date of Meeting:	December 10, 2024 @ 4:00 P.M.	
Attendees:	<ul style="list-style-type: none"> • Genesee County Emergency Management Services <ul style="list-style-type: none"> ○ Tim Yaeger, Coordinator ○ Gary Patnode, Deputy Coordinator • Genesee County Planning Department <ul style="list-style-type: none"> ○ Felipe Oltramari, Director • Genesee County Legislature <ul style="list-style-type: none"> ○ Shelly Stein, Chair • Genesee County Department of Social Services and Youth <ul style="list-style-type: none"> ○ Carla Mindler, Commissioner • Genesee County Public Health <ul style="list-style-type: none"> ○ David Bell, Public Health Emergency Preparedness Coordinator • NYS DHSES <ul style="list-style-type: none"> ○ Kevin Clapp, HMP Supervisor ○ Michael Tarasoff, Planning Manager ○ Betsy Parmerter ○ John Wilkinson 	<ul style="list-style-type: none"> • Alexander (T) <ul style="list-style-type: none"> ○ David Miller, Town Supervisor • Batavia (C) <ul style="list-style-type: none"> ○ Rachael Tabelski, City Manager • Batavia (T) <ul style="list-style-type: none"> ○ Gregory Post, Supervisor ○ Raymond Tourt, Highway Superintendent • Elba (T) <ul style="list-style-type: none"> ○ Dan Coughlin, Town Council • Tetra Tech <ul style="list-style-type: none"> ○ Jessica Stokes, Project Manager ○ Emily Vassallo, Lead Planner
Agenda Summary:	The purpose of the meeting was to provide an overview of the hazard mitigation planning process, discuss public and stakeholder outreach efforts, review the risk assessment results, including the hazard ranking, and introduce the SWOO exercise to the Planning Partnership.	
Item No.	Description	Action item(s):
1	Introductions	-
2	Project Status <ul style="list-style-type: none"> • Review Municipal Participation <ul style="list-style-type: none"> ○ Identify outstanding worksheets • Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Stakeholder and neighboring municipalities surveys have been distributed ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors ▪ Socially Vulnerable Populations 	Planning Partnership <ul style="list-style-type: none"> • Post links on social media and department/agency websites • Make efforts to reach out to general public, stakeholders, neighbors, and socially vulnerable populations
3	Risk Assessment Overview <ul style="list-style-type: none"> • Risk is defined as a function of: <ul style="list-style-type: none"> ○ Hazard <ul style="list-style-type: none"> ▪ Source of potential danger or adverse condition ○ Exposure <ul style="list-style-type: none"> ▪ Manmade or natural features that are exposed to the hazard ○ Vulnerability <ul style="list-style-type: none"> ▪ Damage susceptibility of the exposed features ○ Adaptive Capacity (or capability) <ul style="list-style-type: none"> ▪ Plans/policies ▪ Response/recovery ▪ Financial resources 	-

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Planning Partnership Risk Assessment Meeting | Meeting Minutes



4	Risk Assessment Results <ul style="list-style-type: none"> Provided an overview of the results from the risk assessment for each hazard. Results were a combination of qualitative and quantitative data. 	-
5	Hazard Rankings <ul style="list-style-type: none"> The calculated probability of a hazard occurring based on historical data <i>Impacts to <u>people</u>, <u>property</u>, and the <u>economy</u></i> based on GIS data and analysis of exposure. The degree to which <i><u>climate change</u></i> will affect future occurrences based on best available data. The degree to which existing <i><u>capabilities</u></i> (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk. Ranking: <ul style="list-style-type: none"> High: Severe Winter Storm, Severe Storm, Utility Interruption, Transportation Accident Medium: Wildfire, Flood, Extreme Temperature, Epidemic, Hazardous Materials, Dam Failure, Drought Low: Terrorism, Civil Unrest, Earthquake Introduced Hazard Ranking Worksheet 	-
6	Strengths, Weaknesses, Obstacles, and Opportunities (SWOO) <ul style="list-style-type: none"> Strengths – what the County and communities do well; things upon which we can capitalize. Weaknesses – what can be done better; what can be strengthened. Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues). Opportunities - actions or projects to mitigate issues or improve resilience. 	-
7	Next Steps <ul style="list-style-type: none"> Share information about the HMP Update via social media, community groups, and networks Complete SWOO worksheet (optional) Complete hazard ranking worksheet 	-
8	Questions/Discussion <ul style="list-style-type: none"> Gregory Post: No Petroleum pipes were identified on the map. <ul style="list-style-type: none"> Jes Stokes: It is discussed in the profile. 	Tetra Tech Follow up about MSW



TETRA TECH

Genesee County, NY Hazard Mitigation Plan – 2025 Update


**Planning Partnership Risk Assessment
Meeting**

December 10, 2024

While waiting for the meeting to start,
please enter your name, title, and
jurisdiction in the chat!



Today's Agenda

1. Welcome and Introductions
 2. Project Status
 3. Risk Assessment Overview
 4. Feedback and Input
 5. Next Steps
 6. Questions/Wrap Up
- 



Project Status



Municipal Participation Status

- To date, we have not received all municipal worksheets. Your assigned Tetra Tech planner will be sending a summary of information needed.

Municipality	Assigned Planner
Town of Alabama	Emily Vassallo
Town of Alexander	Grace Altenburg
Village of Alexander	Grace Altenburg
Village of Attica	Grace Altenburg
City of Batavia	Stacy Umbel
Town of Batavia	Stacy Umbel
Town of Bergen	Emily Vassallo
Village of Bergen	Emily Vassallo
Town of Bethany	Grace Altenburg
Town of Byron	Emily Vassallo

Municipality	Assigned Planner
Village of Corfu	Stacy Umbel
Town of Darien	Grace Altenburg
Town of Elba	Emily Vassallo
Town of Le Roy	Stacy Umbel
Village of Le Roy	Stacy Umbel
Town of Oakfield	Emily Vassallo
Village of Oakfield	Emily Vassallo
Town of Pavilion	Grace Altenburg
Town of Pembroke	Stacy Umbel
Town of Stafford	Stacy Umbel

Public Outreach Strategy



- Public Outreach Toolkit
 - Social media templates and posts
 - Press release templates
 - Printable materials
- Surveys
 - Stakeholders
 - Neighboring communities
 - Public
- County HMP Website
 - <https://www.geneseecountynyhmp.com/>



Risk Assessment Overview





What is Risk?

Risk is defined as a function of :

- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources





Purpose of Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings





Preliminary Risk Assessment Results

Civil Unrest



- Civil unrest can occur anywhere within Genesee County.
- Damage to or disruption of operations at government facilities could profoundly impact Genesee County's population.
- More common to see civil disturbances occur at government facilities, landmarks, prisons, and universities where crowds can easily gather in reference to a common issue or message.
- The severity of civil disturbance coincides with the level of public unrest and outrage. Civil disturbances often arise from protests on political issues, unions, institutional uprisings, or even from large celebrations that become out of control.



Dam Failure



Dam failures in Genesee County are a low-probability and high-consequence event. A dam failure can have devastating impacts on the County. While most dams have storage volumes small enough that failures would have little or no consequences, dams with large storage amounts could cause significant flooding downstream.

Number of Dams

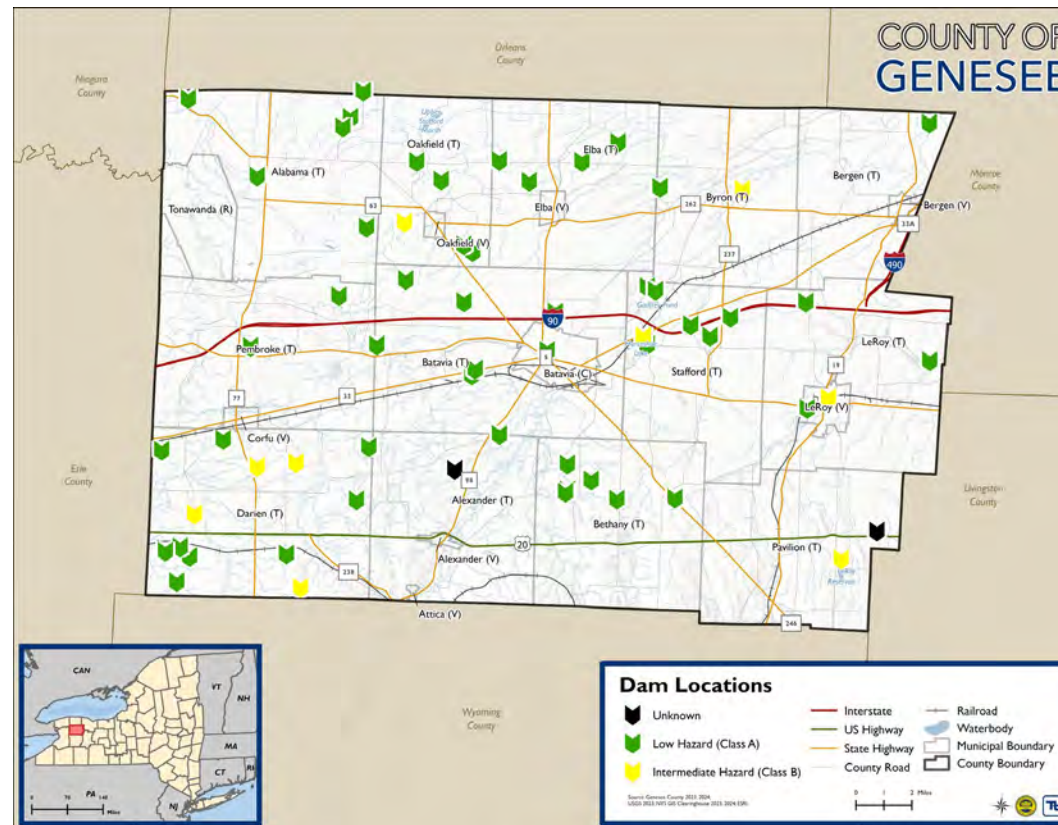
60

- 8 Intermediate Hazard
- 50 Low Hazard
- 2 Unknown/Not Ranked Hazard

Impacts

- Dam failure can cut evacuation routes, limit emergency access, and/or create isolation issues.
- Severe flooding can cause extensive structural damage and withhold essential services.
- The environmental impacts of a dam failure can include significant water-quality and debris-disposal issues or severe erosion that can impact local ecosystems.

Dams by Class in Genesee County



Climate Change Impacts

Genesee County is expected to experience increased precipitation and more frequent, intense storms. Excessive rainfall can cause a dam to overflow since these structures are designed partly based on assumptions about river flow and precipitation patterns. More frequent and intense precipitation leads to more intense dam overtopping, potentially affecting a larger area and producing stronger water velocities that exacerbate damages to general building stock and critical facilities.

Drought



Droughts can affect Genesee County's industries and make day to day tasks more difficult to complete when water usage must be monitored.

Population (2022 ACS) Exposed

60,339

(100%)

The entire County is susceptible

Climate Change Impacts

Short-term seasonal droughts lasting weeks or months could increase, especially in the summer. This is because of precipitation falling in more intense bursts with longer dry spells in between and higher temperatures in the summer causing more water to evaporate. The potential increase of short-term droughts may impact water systems, resulting in water shortages.

Drought Damaged Field



Hazard Types



Meteorological



Hydrological



Agricultural



Socioeconomic

Earthquake



Earthquakes in Genesee County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

Residential buildings are the most impacted structure type in terms of incurred damages, followed by commercial buildings.

Population Exposed

11,523

Hazard Types

Surface Faulting

Ground Motion

Liquefaction

Tectonic Deformation

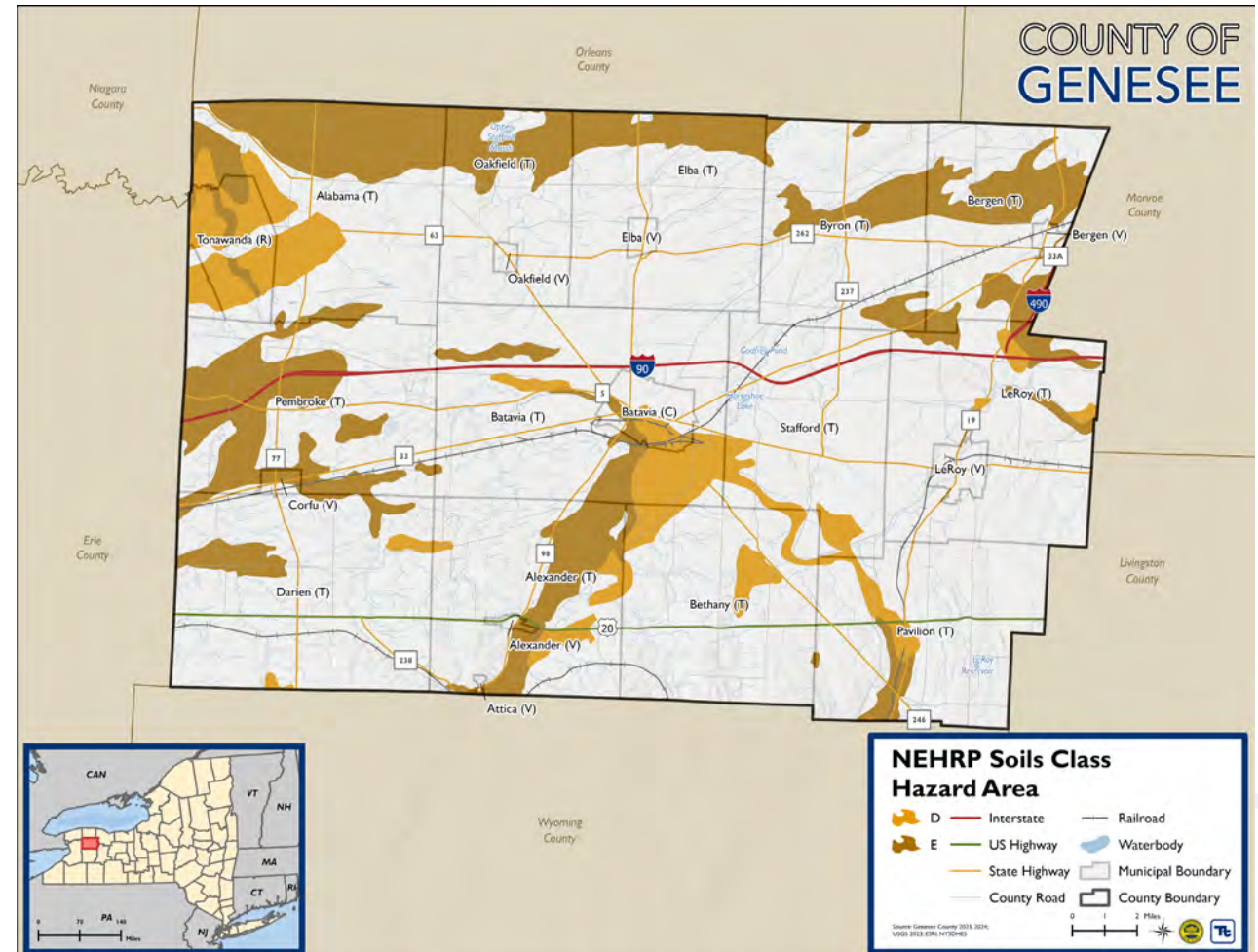
Number of Buildings Exposed

6,235

Building Replacement Cost Value

\$4,382,723,608

NEHRP (D & E) Soils in Genesee County



Epidemics



Epidemics can impact the entirety of Genesee County. Emerging diseases are difficult to contain or treat and present significant challenges to risk communication since the mechanics of transmission, laboratory identification, and effective treatment protocols may be unknown.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible. As population density increases in the County, so too will the probability of a disease outbreak event to occur.

Vulnerable Populations

- Healthcare providers and first responders have an increased risk of exposure due to their frequent contact with infected populations.
- The elderly and immunocompromised individuals may have increased vulnerability to becoming infected or experience exacerbated impacts depending upon the disease.

Climate Change Impacts

There has been discussion that rising temperatures will increase the number of mosquitoes that can transmit disease among humans. Furthermore, the increase in projected precipitation may lead to larger areas of pooling water, creating a more favorable environment for mosquito habitats.

COVID-19 Cases Per Day in Genesee County, March 2020 – May 2023



COVID-19 Deaths Per Day in Genesee County, March 2020 – May 2023





Extreme Temperature

Extreme temperature includes both heat and cold events, which affects the entire County including, human health and commercial/agricultural businesses. Extreme temperature events can have primary and secondary effects on infrastructure.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

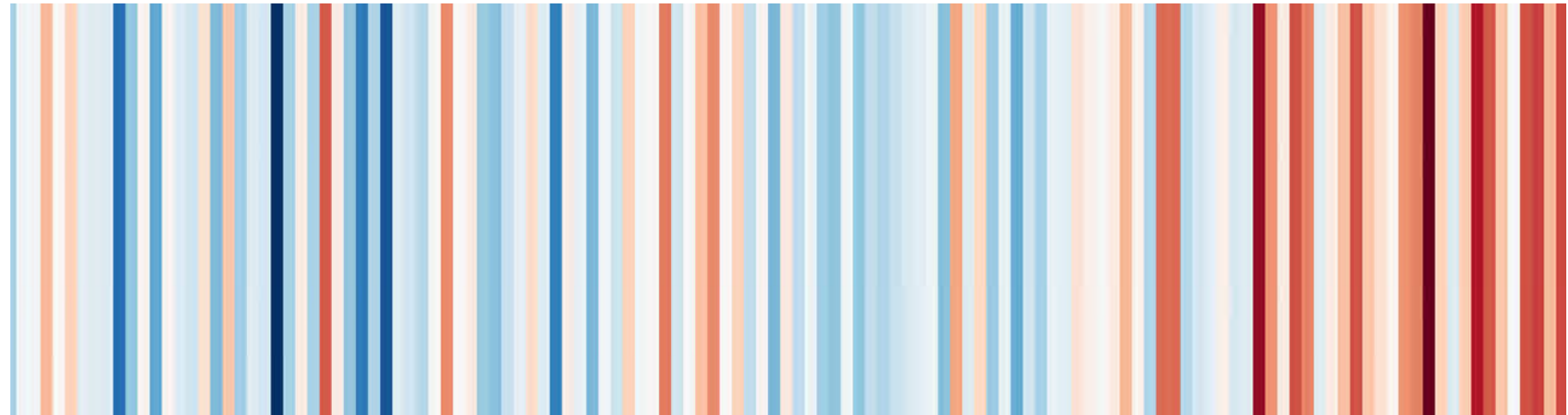
Occurrences Between 2007 and 2024

- Extreme Cold – 3 occurrences
- Cold/Wind Chill – 29 occurrences
- Extreme Heat – 23 occurrences

Climate Change Impacts

Evidence shows that extremely hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades.

Climate Stripes for Genesee County



Annual temperature in Genesee County (1895-2023) arranged from left to right. Each line shows a given year's temperature or precipitation compared to the 20th-century average. The darker the red or blue, the warmer or cooler the year.

Flood



Floods can happen almost anywhere in County but tend to occur in and around areas near existing bodies of water. Sloped land in the County results in flowing water moving down steeper gradients and being naturally or artificially channelized through valleys and gullies.

Population Exposed

3,800

In 1% Annual Chance Flood Area

5,057

In 0.2% Annual Chance Flood Area

Land Exposed to Flood
Hazard (acres)

38,861

In 1% Annual Chance Flood Area

39,312

In 0.2% Annual Chance Flood Area

Flood Building Replacement Cost Value

\$1,303,600,253

In 1% Annual Chance Flood Area

\$1,773,285,352

In 0.2% Annual Chance Flood Area

Number of Buildings Exposed

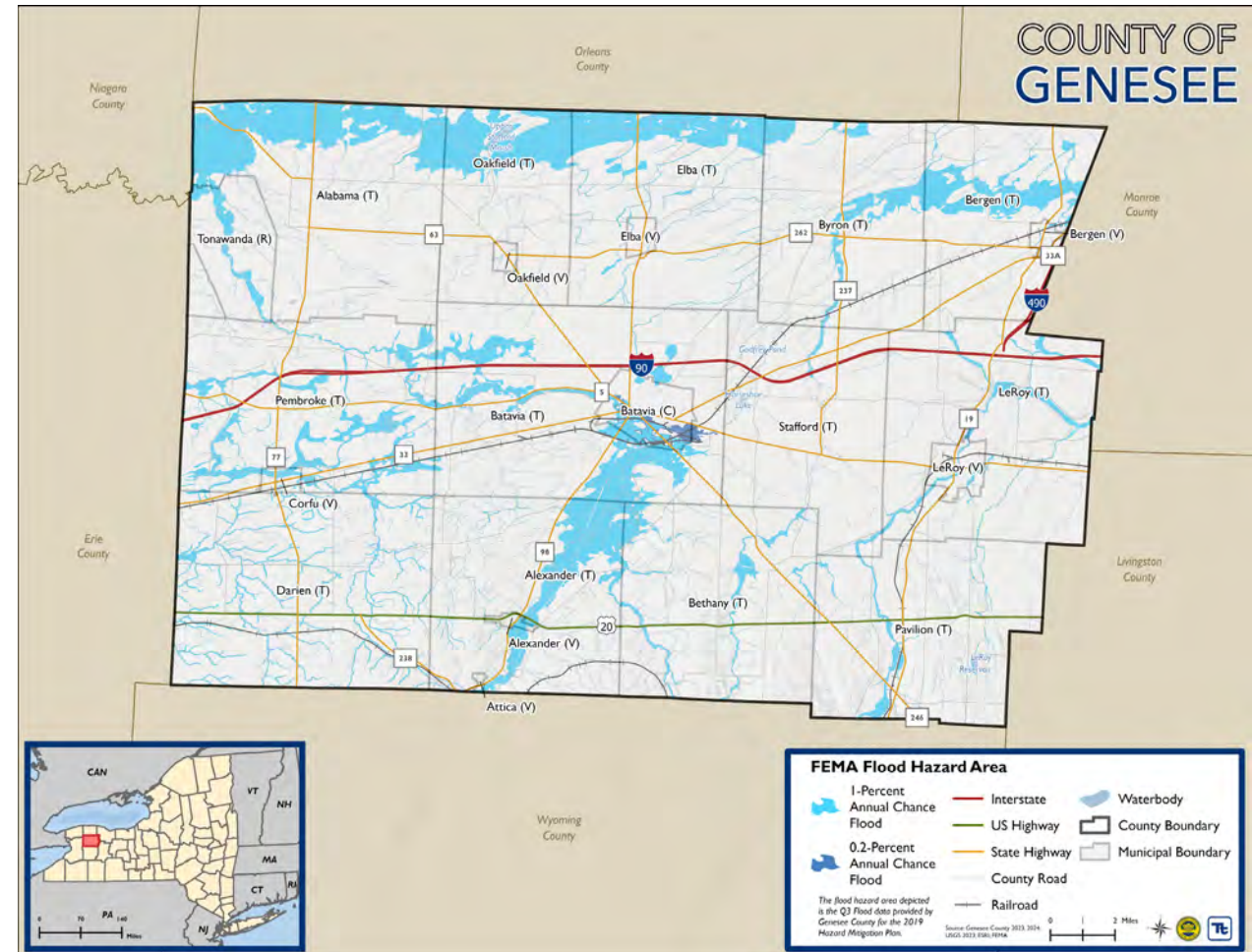
1,774

In 1% Annual Chance Flood Area

2,285

In 0.2% Annual Chance Flood Area

FEMA Flood Hazard Areas



Hazardous Materials



A hazardous materials incident may occur in transit or at a fixed facility. Release of certain products can adversely impact the general population, ranging from evacuations to personal injury and even death. Moreover, any release can compromise the local environment through contamination of soil, groundwater, or local flora and fauna.

Population Exposed

44,985

Within 0.5 miles of a major highway

19,115

Within 0.5 miles of a rail line

48,678

Unique radius for SARA Sites

Number of Buildings Exposed

21,917

Within 0.5 miles of a major highway

9,001

Within 0.5 miles of a rail line

25,720

Unique radius for SARA Sites

Community Lifelines Exposed

1,590

Within 0.5 miles of a major highway

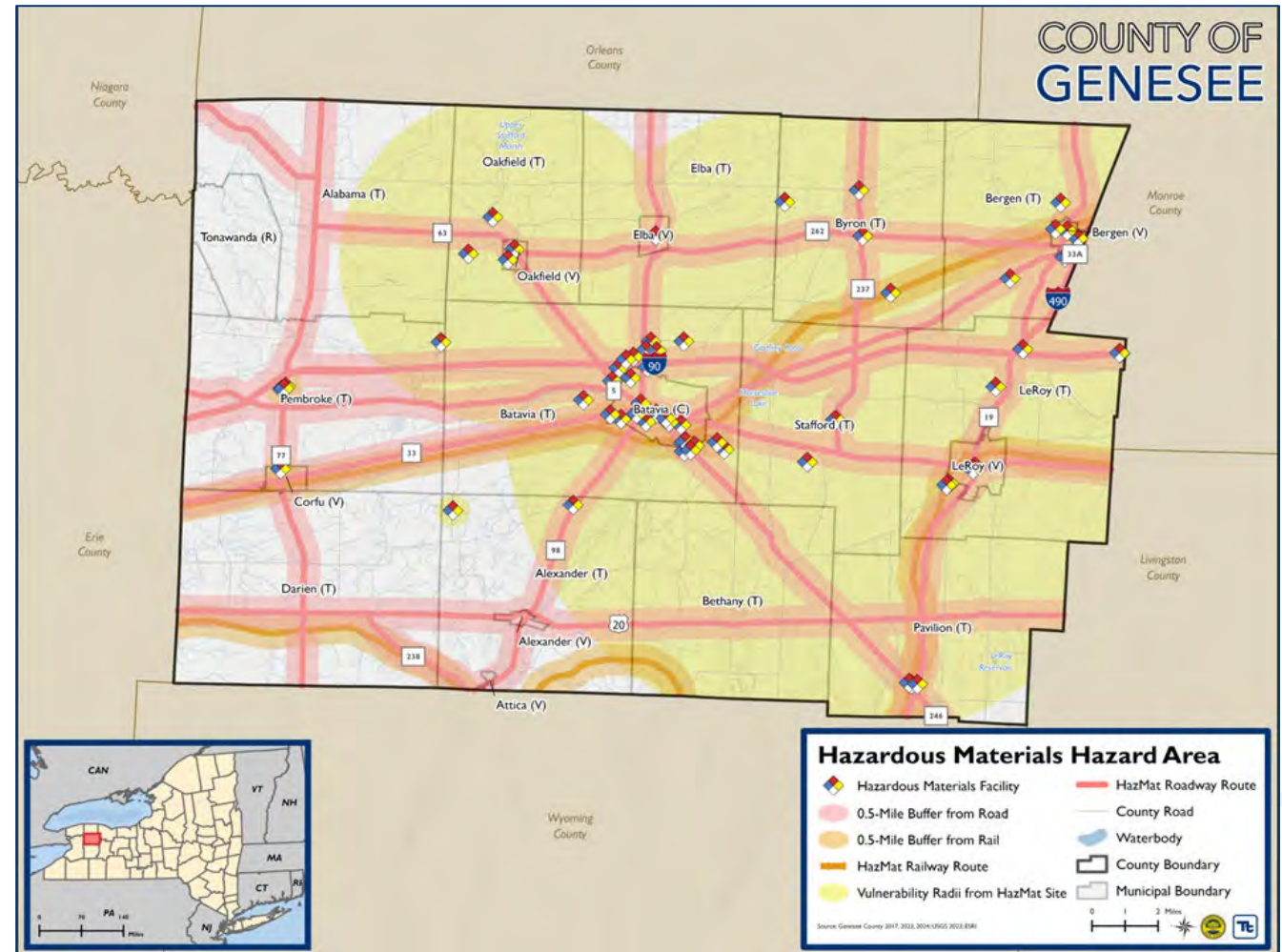
689

Within 0.5 miles of a rail line

1,829

Unique radius for SARA Sites

Hazardous Materials Hazard Areas in Genesee County



Severe Storm



Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Notable Occurrences

A strong October storm produced 1-3 inches of rain and wind gusts of 61 mph which produced substantial property damage, road closures and power outages. A total of \$575,000 in property damages were reported.

Population (2022 ACS) Exposed

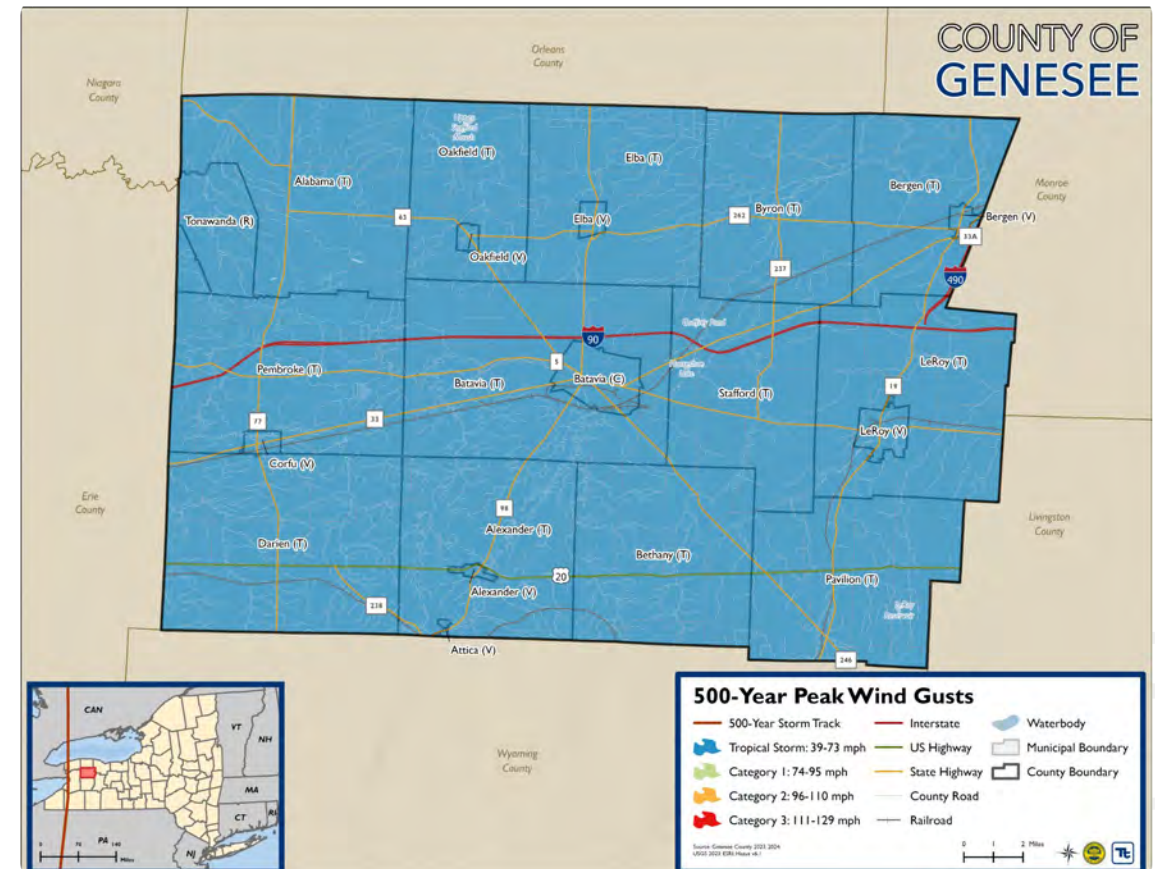
60,339
(100%)

The entire County is susceptible

Hazard Types

- High Wind
- Tornado
- Thunderstorm
- Lightning
- Hail
- Hurricanes/Tropical Cyclones

500-Year Peak Wind Gusts in Genesee County



Severe Winter Storm



Severe winter weather can occur anywhere in the County and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

Population (2022 ACS) Exposed

60,339

(100%)

The entire County is susceptible

Snow Removal from Severe Winter Storm Event



Notable Occurrence

A winter storm in November 2022 resulted in \$500,000 in property damages due to a barn collapsing in the Town of Darien due to the weight of the snow.

Hazard Types

- Heavy Snow
- Blizzard
- Ice Storm
 - Sleet
 - Freezing Rain

Climate Change Impacts

As winters continue to warm, ice is projected to become rarer in the upcoming decades, which may lead to more lake-effect snow in the short term due to additional moisture available in the atmosphere to create precipitation. Over the long term, however, more of this is likely to fall as rain.

Terrorism



- Terrorism can occur anywhere within Genesee County.
- Damage to or disruption of operations at government facilities could profoundly impact Genesee County's population, even if the terrorism event is relatively small-scale.
- While the probability of a terrorist attack is possible, the impacts can vary in severity from nominal to catastrophic and are contingent upon the method of the attack, the volume of force applied, and the population density of the attack site.



Transportation Accident



Transportations accidents can occur anywhere in the County at any time. Transportation accidents are incidents involving highway, air, and rail travel, resulting in death, serious injury, property loss or damage or situations that cause delay or closure.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

Hazard Types



Vehicular



Aviation



Rail

Transportation Overview

Interstate Highway	64 mi.
County Roads	261.08 mi.
Local Roads	605 mi.
Total miles of roads	1,129 mi.
Rail Freight	65 mi.
Rail Passenger	30 mi.
Civil Use and Seaplane Airports	1
Other airports	6
Total Airports	7
Bridges in fair condition	86
Bridges in good condition	50
Bridges in poor condition	27
Total Bridges	163

2023 Transportation Accidents

2,135

Vehicle

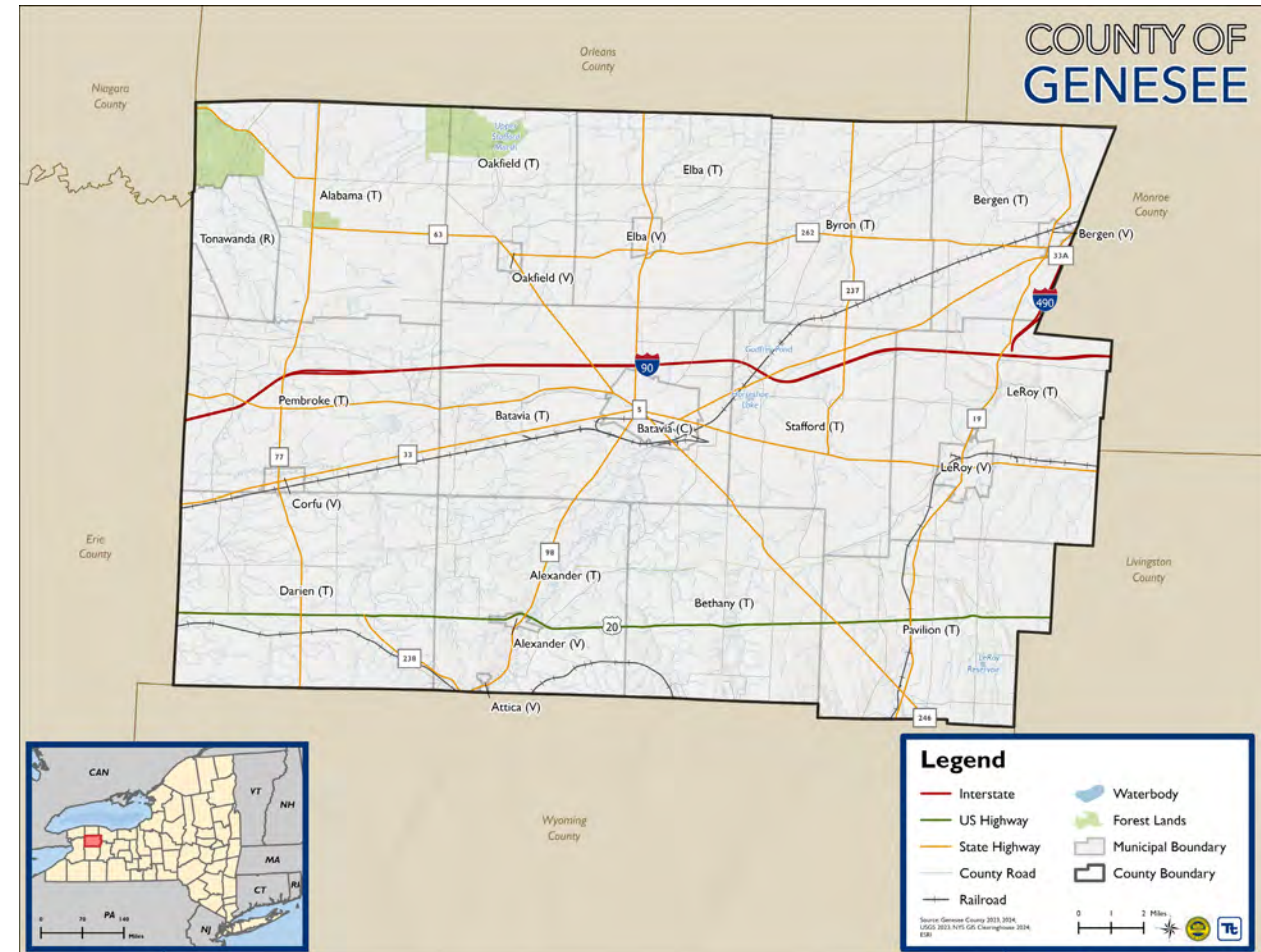
0

Aviation

1

Rail

Transportation Routes in Genesee County





Utility Interruption

Utility interruption can occur anywhere in the County and has the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions which may result in utility interruptions.

Population (2022 ACS) Exposed

60,339

The entire County is susceptible

Vulnerable Populations

Utility interruptions most severely affect individuals with access and functional needs (such as children, the elderly, and individuals with special medical needs).

Special medical equipment will not function without power.

Climate Change Impacts

New York State has warmed more rapidly than the national average, and winter is warming faster than other seasons. Evidence shows that hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades which may impact utilities in the County.

Power Restoration



Cascading Impacts



Fires

Temperature-Related Illnesses



Traffic Accidents

Loss of Food, Water, and Medical Resources



Wastewater and Potable Water Utility Interruption





Hazard Rankings

Review the calculated hazard rankings and provide your feedback.



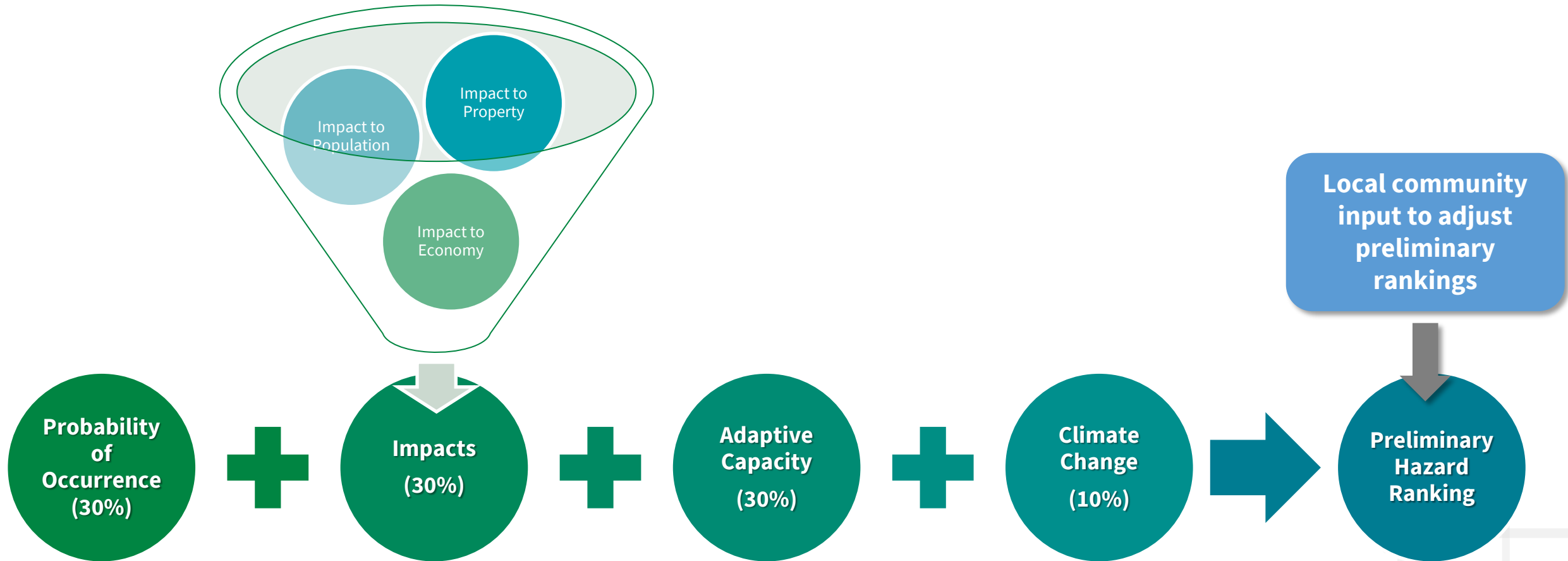
Preliminary Hazard Ranking Methodology

- The calculated probability of a hazard occurring based on historical data
- *Impacts to people, property, and the economy* based on GIS data and analysis of exposure.
- The degree to which climate change will affect future occurrences based on best available data.
- The degree to which existing capabilities (the ability of your community to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness) decrease overall risk.





Preliminary Hazard Ranking Formula





Preliminary Risk Ranking (County)

High

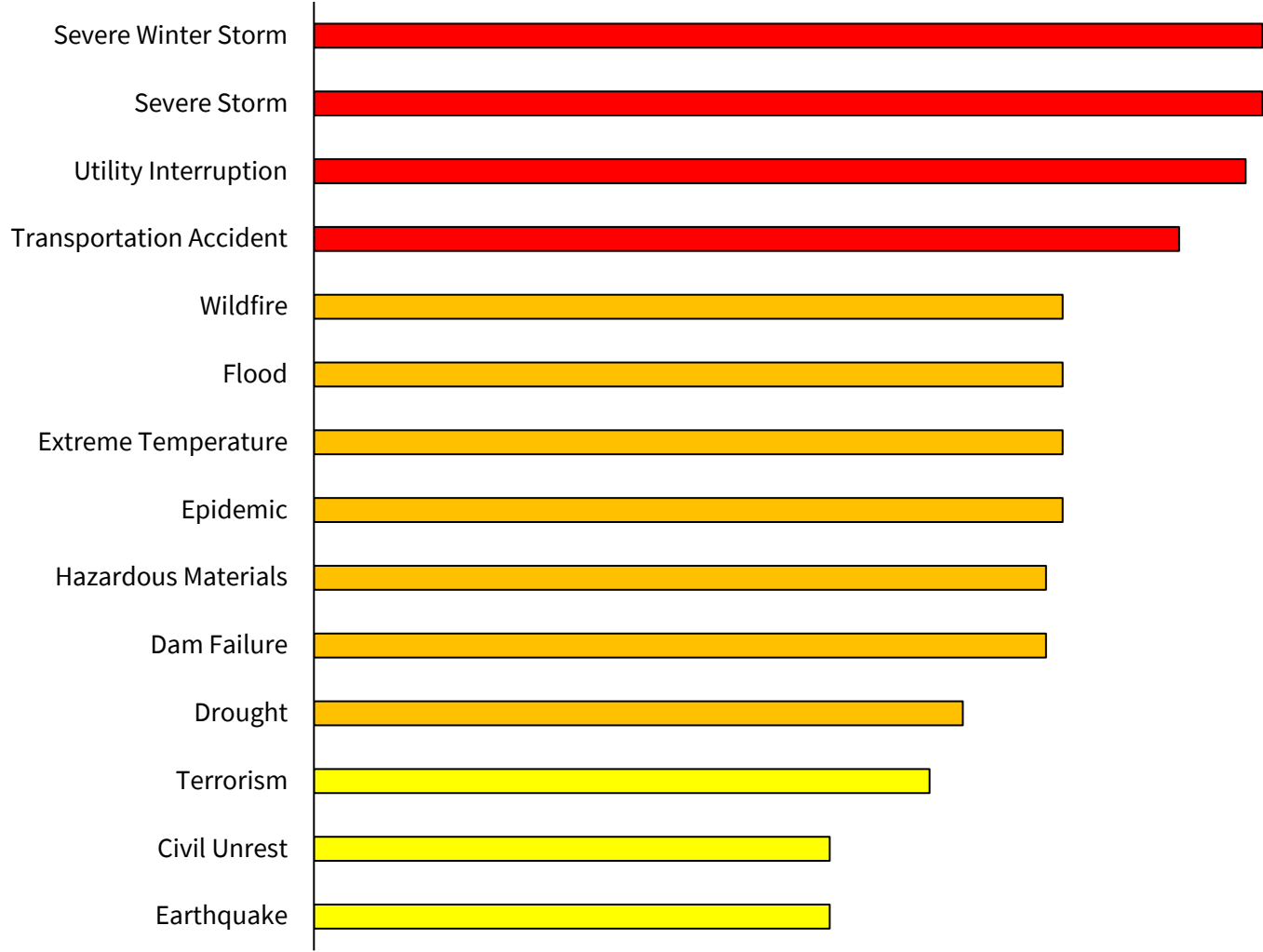
- Severe Winter Storm
- Severe Storm
- Utility Interruption
- Transportation Accident

Medium

- Wildfire
- Flood
- Extreme Temperature
- Epidemic
- Hazardous Materials
- Dam Failure
- Drought

Low

- Terrorism
- Civil Unrest
- Earthquake



Review Preliminary Rankings



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

Complete this worksheet and return to Stacy Umbel (stacy.umbel@tetratech.com) by Friday, December 20

Municipality: _____
Name/Title of Individual
Completing Worksheet: _____

What is a hazard ranking?

Hazard Ranking is used to understand your community's vulnerabilities to hazards and to prioritize projects and activities for mitigation.

Hazard Ranking is determined by quantitative and qualitative factors including:

1. The calculated probability of a hazard occurring based on historical data.
2. Impacts to people, property, and the economy based on GIS data and analysis of exposure.
3. The degree to which climate change will affect future occurrences based on best available data.
4. Adaptive Capacity, which is the ability your community has to respond to the hazard based on ordinances, mitigation strategies and procedures, and readiness.

What is my hazard ranking?

The following table represent the calculated rankings for the hazards of concern for your community. Please review the calculated rankings and indicate whether or not you want to adjust the ranking. If you are changing the ranking, please provide detail as to why you are changing the ranking. **REMEMBER for every hazard of concern, you need at least one mitigation action.**

Continued on next page.



Genesee County Hazard Mitigation Plan



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

What are the hazards we need to address?

FEMA requires each participating jurisdiction include at least one mitigation action for each of the hazards of concern. If your jurisdiction does not incur impacts or has determined it does not endure risks from an identified hazard(s), please indicate so. For the Genesee County 2025 Hazard Mitigation Plan update, the hazards of concern are as follows:

Table 1. Hazards of Concern

Hazard	Preliminary Ranking	Agree with preliminary ranking (Y/N)? If No, indicate preferred ranking.	What local information or conditions have resulted in the adjustment in hazard ranking?
Civil Unrest	Low		
Dam Failure	Medium		
Drought	Medium		
Earthquake	Low		
Epidemic	Medium		
Extreme Temperature	Medium		
Flood	Low		
Hazardous Materials	Medium		
Severe Storm	High		
Severe Winter Storm	High		
Terrorism	Low		
Transportation Accident	High		
Utility Interruption	High		
Wildfire	High		



Genesee County Hazard Mitigation Plan



Genesee County | Hazard Mitigation Plan 2025 Update
Hazard Ranking Worksheet

What is Adaptive Capacity?

Adaptive capacity describes a jurisdiction's current ability to protect from or withstand a hazard event.

- **Weak** adaptive capacity means the jurisdiction does not have the capability to effectively respond, which leads to an increase in vulnerability. Examples include weak/outdated/inconsistent plans, policies, codes/ordinances in place, no redundancies, limited to no deployable resources, limited capabilities to respond, long recovery.
- **Moderate** adaptive capacity means minimum requirements are in place, moderate capabilities; mitigation measures are identified but not implemented widespread; jurisdiction can recover but needs outside resources.
- **Strong** adaptive capacity means the jurisdiction does have the capability to effectively respond, plans/policies exceed minimum requirements; deployable resources all of which decreases vulnerability.

Table 2. Adaptive Capacity

Hazard	Preliminary Ranking	What should we indicate for your community's adaptive capacity for each hazard?
Civil Unrest	Moderate	
Dam Failure	Moderate	
Drought	Moderate	
Earthquake	Moderate	
Epidemic	Moderate	
Extreme Temperature	Moderate	
Flood	Moderate	
Hazardous Materials	Moderate	
Severe Storm	Moderate	
Severe Winter Storm	Moderate	
Terrorism	Moderate	
Transportation Accident	Moderate	
Utility Interruption	Moderate	
Wildfire	Moderate	

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



Genesee County Hazard Mitigation Plan

STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)



Strengths, Weaknesses, Obstacles, and Opportunities (SWOO)



- The purpose of the SWOO is to identify mitigation strategies and capabilities that will meet the goals and objectives for the Genesee County HMP. The results will be used to develop a catalog of potential mitigation actions for use by the County and all jurisdictions. Look at the following for each hazard of concern:
 - Strengths – what your jurisdiction does well; things upon which can be capitalized on;
 - Weaknesses – what can be done better; what can be strengthened;
 - Obstacles – what stands in the way to implementation to prevent mitigation or response (for example regulatory, geographical, environmental, financial issues); and
 - Opportunities - actions or projects to mitigate issues or improve resilience.
- Return this sheet to Stacy Umbel (Stacy.Umbel@tetrattech.com) at Tetra Tech.

The screenshot shows a worksheet titled "Genesee County / Hazard Mitigation Plan 2025 Update: SWOO". At the top, it says "Update this worksheet and return this worksheet to Stacy Umbel at Stacy.Umbel@tetrattech.com". Below this, there are fields for "Name/Title of Individual Completing Worksheet:" and "Jurisdiction:". The main section is titled "STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)". It explains the purpose of the SWOO and lists four categories: Strengths, Weaknesses, Obstacles, and Opportunities. Below this, there is a table with four rows, each corresponding to one of these categories. The first row is labeled "Civil Unrest" and "Strengths". The other three rows are labeled "Weaknesses", "Obstacles", and "Opportunities". At the bottom, there is a Tetra Tech logo and the text "Genesee County Hazard Mitigation Plan".

STRENGTHS, WEAKNESSES, OBSTACLES, AND OPPORTUNITIES (SWOO)	
Civil Unrest	Strengths
	Weaknesses
	Obstacles
	Opportunities



Next Steps

- Share information about the HMP Update via social media, community groups, and networks
- Complete SWOO exercise
- Complete hazard ranking worksheet





Questions?

Genesee County Project Contact

Timothy Yaeger, Director | Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com

Thank
You!



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Mitigation Strategy Workshop – AGENDA
MEETING DATE/TIME: March 18, 2025 @ 3:00PM



In-Person Meeting

Genesee County Office of Emergency Management
7690 State St. Rd., Batavia, NY 14020

- 1. Opening Remarks**
- 2. Project Status**
 - Where we are in the process
 - Public outreach
- 3. Identifying and Developing Mitigation Strategies**
- 4. Review Previous Actions**
- 5. Developing New Potential Actions**
- 6. Next Steps**
 - Continue developing actions
 - Work with Tetra Tech staff to complete outstanding worksheets
- 7. Questions**
- 8. Workshop**

Genesee County Project Contact

Timothy Yaeger, Director
Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contacts

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com

Emily Vassallo
(717) 839-5655 | emily.vassallo@tetrattech.com

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Mitigation Strategy Workshop | Meeting Minutes



Purpose of Meeting:	Mitigation Strategy Workshop	
Location of Meeting:	Genesee County Office of Emergency Management (7690 State St. Rd., Batavia, NY 14020)	
Date of Meeting:	March 18, 2025 (3:00 pm – 5:00 pm)	
Attendees:	<ul style="list-style-type: none"> • Genesee County Emergency Management Services <ul style="list-style-type: none"> ○ Tim Yaeger, Coordinator ○ Gary Patnode, Deputy Coordinator ○ Elizabeth Allen, Financial Management Assistant • Genesee County Legislature <ul style="list-style-type: none"> ○ Shelly Stein, Chair • Genesee County Department of Social Services and Youth <ul style="list-style-type: none"> ○ Carla Mindler, Commissioner • Genesee County Public Works <ul style="list-style-type: none"> ○ Craig Smith, Deputy Commissioner • Genesee County Sheriff's Office <ul style="list-style-type: none"> ○ Brian Frieday, Chief Deputy ○ Frank Riccobono, Director of Emergency Communications • Genesee County Administration <ul style="list-style-type: none"> ○ Tammi Fernngel, Deputy County Manager • Alexander (T) <ul style="list-style-type: none"> ○ Ron Merrill, Town Board Member • Alexander (V) <ul style="list-style-type: none"> ○ Pork Breton, Mayor • Bergen (T) <ul style="list-style-type: none"> ○ Joseph Chimino, Mayor ○ Ralph Marsocci, Former Mayor • Bergen (V) <ul style="list-style-type: none"> ○ Gary Cecere, Code Enforcement Officer • Darien (T) <ul style="list-style-type: none"> ○ Jerry Yoder, Zoning/Code Enforcement Officer • Elba (V) <ul style="list-style-type: none"> ○ Norm Itjer, Mayor • NYS DHSES <ul style="list-style-type: none"> ○ Kevin Clapp, HMP Supervisor • Tetra Tech <ul style="list-style-type: none"> ○ Jessica Stokes, Project Manager ○ Emily Vassallo, Lead Planner 	
Agenda Summary:	The purpose of the meeting was to describe the contains within the mitigation strategy, provide an opportunity for jurisdictions to review their previous mitigation actions, complete outstanding worksheets with assistance from Tetra Tech planners, discuss what makes a good mitigation action, review previous goals and objectives, and identify potential 2025 mitigation actions.	
Item No.	Description	Action item(s):
1	Introductions	
2	Project Status <ul style="list-style-type: none"> • Public Outreach Toolkit <ul style="list-style-type: none"> ○ Social media templates and posts ○ Press release templates ○ Printable materials • Surveys <ul style="list-style-type: none"> ○ Stakeholders – 0 responses ○ Neighboring communities – 2 responses ○ Public – 0 responses • HMP Website 	Planning Partnership <ul style="list-style-type: none"> • Post about the plan update and complete/send out surveys. Tetra Tech <ul style="list-style-type: none"> • Resend outreach materials to Planning Partnership.
3	Identifying and Developing Mitigation Strategies <ul style="list-style-type: none"> • 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. • Mitigation Actions are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk. <ul style="list-style-type: none"> ○ Forward-looking and incorporate changing conditions for the life of the County's assets 	-



	<ul style="list-style-type: none"> ○ Consider changing demographics, development patterns, impacts of climate change. ○ Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement. • What is a Mitigation Strategy? <ul style="list-style-type: none"> ○ A group of projects or actions to reduce the impacts of the hazards of concern on your community <ul style="list-style-type: none"> ▪ Plans and Regulations ▪ Structure and Infrastructure Studies and Projects ▪ Natural Systems Protection Studies and Projects ▪ Education and Awareness Programs • Terms to describe the <u>Mitigation Strategy</u> include: <ul style="list-style-type: none"> ○ Mitigation Action Plan or Action Plan ○ Mitigation Projects or Initiatives or Actions • Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions. • The capability assessment can provide insight into challenges and opportunities for the mitigation strategy. • All actions proposed in the mitigation strategy must have a factual basis tied to hazards (<i>this shouldn't be a wish list!</i>) 	
4	Hazards of Concern <ul style="list-style-type: none"> • Civil Unrest, Dam Failure, Drought, Earthquake, Epidemic, Extreme Temperature, Flood, Hazardous Materials, Severe Storm, Severe Winter Storm, Terrorism, Transportation Accidents, Utility Interruption, Wildfire 	-
5	Developing New Potential Actions <ul style="list-style-type: none"> • Quality not quantity <ol style="list-style-type: none"> 1. Each action needs detailed information on the why, who, what, and when of the action. • 2019 projects <ol style="list-style-type: none"> 1. If a project is not finished and still a priority, include in 2025 HMP 2. Remove general projects or make more specific 3. Remove ongoing capabilities like maintenance or annual outreach • Each hazard needs at least one mitigation action • If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses) • Four types of Mitigation Actions <ol style="list-style-type: none"> 1. Plans and regulations 2. Structure and Infrastructure 3. Natural systems protection 4. Education and awareness 	-
6	2025 HMP Suggested Goals and Objectives <ol style="list-style-type: none"> 1. Reduce the likelihood and impacts of hazards on life, property, and the environment. <ul style="list-style-type: none"> ○ Objective 1.1: Develop and/or update local regulations based on current information and best practices. 	-



	<ul style="list-style-type: none"> ○ Objective 1.2: Maintain natural systems to reduce the impacts of hazards. ○ <i>Objective 1.3: Strengthen understanding of, and adaptation to, a changing climate</i> ○ <i>Objective 1.4: Encourage the use of green and natural infrastructure</i> <p>2. Protect life, property, critical infrastructure, the environment, and the economy from the impacts of natural, technological, and human-caused disasters.</p> <ul style="list-style-type: none"> ○ Objective 2.1: Acquire, retrofit, or relocate structures from flood-prone areas. ○ Objective 2.2: Retrofit critical infrastructure to protect against hazard impacts. ○ Objective 2.3: Ensure that critical facilities can continue to function during and after hazard impacts. ○ Objective 2.4: Work with residents to maintain drainage ditches on private property. ○ Objective 2.5: Encourage residents and business owners to insure their property against hazard impacts, including through flood insurance through the National Flood Insurance Program (NFIP). <p>3. Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.</p> <ul style="list-style-type: none"> ○ Objective 3.1: Work with legislators to develop and enact legislation that reduces long-term vulnerability to hazards. ○ Objective 3.2: Increase public awareness of the hazards and risks faced by the County's residents and businesses, and what measures they can take to protect their property. ○ <i>Objective 3.3: Increase local government official awareness regarding funding opportunities for mitigation and participating/contributing to plan updates.</i> <p>4. <i>Reduce the risk of natural hazards for socially vulnerable populations.</i></p> <ul style="list-style-type: none"> ○ <i>Objective 4.1: Identify and provide additional resources to vulnerable and marginalized populations that have reduced capacity to respond to hazards compared with the general population.</i> ○ <i>Objective 4.2: Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit socially vulnerable populations and underserved communities</i> <p>5. <i>Address long-term vulnerabilities from hazardous dams.</i></p> <ul style="list-style-type: none"> ○ <i>Objective 5.1: Ensure dam infrastructure is maintained.</i> ○ <i>Objective 5.2: Support the identification of and access to funding for the repair or replacement of dams.</i> ○ <i>Objective 5.3: Ensure emergency action plans are developed and updated.</i> <p>Comments:</p> <ul style="list-style-type: none"> • Concern regarding Objective 2.4 with private property owner cooperation in terms of flood related issues on a small creek. • Recommendation to update Goal 4 to include human-caused hazards. • Recommendation to update Goal 4 to be "the best of the County and jurisdictional ability". 	
7	Workshop	-

**Genesee County, NY – Hazard Mitigation Plan 2025 Update
Mitigation Strategy Workshop | Meeting Minutes**



	<ul style="list-style-type: none"> • Work on New Action Development Workshop to identify problem areas within your jurisdiction • Work with Tetra Tech Planner(s) to complete missing worksheets 	
8	Next Steps <ul style="list-style-type: none"> • Share information about the HMP Update via social media, community groups, and networks • Schedule meeting with Tetra Tech planner to complete annex • Complete and return the New Action Development worksheet within 2 weeks 	-
9	Questions/Discussion <ul style="list-style-type: none"> • There is HMGP funding available through DHSES. Grant applications are due at the end of April. More information for these opportunities can be found on the DHSES website (www.dhses.ny.gov/hazard-mitigation). 	-



Genesee County 2025 Hazard Mitigation Plan

Topic: Mitigation Strategy Workshop

Date: March 18, 2025

Time: 3:00 PM – 5:00 PM



Name	Title	Jurisdiction	Email
GARY CECERE	CEO &	Village of Bergen	CEO@VillageofBergen.com
Jessica Stokes	Project Manager	Tetra Tech	jessica.stokes@tetratech.com
Kevin Ciapp	Supervisor - Highway	NYS DHSR	Kevin.Ciapp@dhsr.ny.gov
Joseph Chimino	MAYOR	Village of Bergen	jchimino@villageofbergen.com
RALPH	FORMER MAYOR))	RALPHMARSOCCE@GMAIL.COM
Carla Hindler	Commissioner	Gen. Co. DSS	carla.mindler@dof.state.ny.us
Pork Breton	Mayor	Village of Alexander	porkbreton@yahoo.com



Genesee County 2025 Hazard Mitigation Plan
Topic: Mitigation Strategy Workshop
Date: March 18, 2025
Time: 3:00 PM – 5:00 PM



Name	Title	Jurisdiction	Email
ROB MERRILL	TOWN BOARD	TOWN OF ALEXANDER	rp.mgs3@YAHOO.com
Emily Vassallo	Planner	Tetra Tech	emily.vassallo@tetra.tech.com
Jerry Yoder	ZONING / CODE ENFORCEMENT OFFICER	Town, Tonawanda	2eo@townofdrumville.ny.com
Norm Itjen	Mayor	Village Elba	litjen@rochester.rr.com
CRAIG SMITH	PUBLIC WORKS - GENESSEE COUNTY	GENESSEE COUNTY	Craig.Smith@geneseeny.gov
Brian Friday	Chief Deputy	Genesee Co S.O.	Brian.Friday@geneseeny.gov
Frank Riccobono	Dir of Emergency Community	Gen. Co Sheriff's Office	Frank.riccobono@geneseeny.gov
GARY PATNODE	Deputy Director GEOEM	Emergency Management	gary.patnode@geneseeny.gov
Tammi Ferninger	Deputy County Mgr	Genesee County	tammi.ferninger@geneseeny.gov
Elizabeth Allen		Emerg mgmt	elizabeth.allen@geneseeny.gov
Shelley Stein	Chair Gen. Co.	Leg. for Hedley	RocheStein@geneseeny.gov



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Mitigation Strategy Workshop – AGENDA
MEETING DATE/TIME: March 18, 2025 @ 6:00PM



In-Person Meeting

Genesee County Office of Emergency Management
7690 State St. Rd., Batavia, NY 14020

- 1. Opening Remarks**
- 2. Project Status**
 - Where we are in the process
 - Public outreach
- 3. Identifying and Developing Mitigation Strategies**
- 4. Review Previous Actions**
- 5. Developing New Potential Actions**
- 6. Next Steps**
 - Continue developing actions
 - Work with Tetra Tech staff to complete outstanding worksheets
- 7. Questions**
- 8. Workshop**

Genesee County Project Contact

Timothy Yaeger, Director
Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contacts

Jessica Stokes, MSEM, NJCEM
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Emily Vassallo
(717) 839-5655 | emily.vassallo@tetrattech.com

Genesee County, NY – Hazard Mitigation Plan 2025 Update
Mitigation Strategy Workshop | Meeting Minutes



Purpose of Meeting:	Mitigation Strategy Workshop	
Location of Meeting:	Genesee County Office of Emergency Management (7690 State St. Rd., Batavia, NY 14020)	
Date of Meeting:	March 18, 2025 (6:00 pm – 8:00 pm)	
Attendees:	<ul style="list-style-type: none"> • Genesee County Emergency Management Services <ul style="list-style-type: none"> ○ Tim Yaeger, Coordinator ○ Gary Patnode, Deputy Coordinator ○ Elizabeth Allen, Financial Management Assistant • Genesee County Planning Department <ul style="list-style-type: none"> ○ Felipe Oltramari, Director • Batavia (T) <ul style="list-style-type: none"> ○ Raymond Tourt, Highway Superintendent 	<ul style="list-style-type: none"> • Towanda Seneca Nation <ul style="list-style-type: none"> ○ Christina Abrami, Office Administrator • NYS DHSES <ul style="list-style-type: none"> ○ Kevin Clapp, HMP Supervisor • Tetra Tech <ul style="list-style-type: none"> ○ Jessica Stokes, Project Manager ○ Emily Vassallo, Lead Planner
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4	<p>Hazards of Concern</p> <ul style="list-style-type: none"> • Civil Unrest, Dam Failure, Drought, Earthquake, Epidemic, Extreme Temperature, Flood, Hazardous Materials, Severe Storm, Severe Winter Storm, Terrorism, Transportation Accidents, Utility Interruption, Wildfire 	-
5	<p>Developing New Potential Actions</p> <ul style="list-style-type: none"> • Quality not quantity <ol style="list-style-type: none"> 1. Each action needs detailed information on the why, who, what, and when of the action. • 2019 projects <ol style="list-style-type: none"> 1. If a project is not finished and still a priority, include in 2025 HMP 2. Remove general projects or make more specific 3. Remove ongoing capabilities like maintenance or annual outreach • Each hazard needs at least one mitigation action • If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses) • Four types of Mitigation Actions <ol style="list-style-type: none"> 1. Plans and regulations 2. Structure and Infrastructure 3. Natural systems protection 4. Education and awareness 	-
6	<p>2025 HMP Suggested Goals and Objectives</p> <ol style="list-style-type: none"> 1. Reduce the likelihood and impacts of hazards on life, property, and the environment. <ul style="list-style-type: none"> ○ Objective 1.1: Develop and/or update local regulations based on current information and best practices. ○ Objective 1.2: Maintain natural systems to reduce the impacts of hazards. ○ <i>Objective 1.3: Strengthen understanding of, and adaptation to, a changing climate</i> ○ <i>Objective 1.4: Encourage the use of green and natural infrastructure</i> 2. Protect life, property, critical infrastructure, the environment, and the economy from the impacts of natural, technological, and human-caused disasters. <ul style="list-style-type: none"> ○ Objective 2.1: Acquire, retrofit, or relocate structures from flood-prone areas. 	-



	<ul style="list-style-type: none"> ○ Objective 2.2: Retrofit critical infrastructure to protect against hazard impacts. ○ Objective 2.3: Ensure that critical facilities can continue to function during and after hazard impacts. ○ Objective 2.4: Work with residents to maintain drainage ditches on private property. ○ Objective 2.5: Encourage residents and business owners to insure their property against hazard impacts, including through flood insurance through the National Flood Insurance Program (NFIP). <p>3. Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.</p> <ul style="list-style-type: none"> ○ Objective 3.1: Work with legislators to develop and enact legislation that reduces long-term vulnerability to hazards. ○ Objective 3.2: Increase public awareness of the hazards and risks faced by the County's residents and businesses, and what measures they can take to protect their property. ○ <i>Objective 3.3: Increase local government official awareness regarding funding opportunities for mitigation and participating/contributing to plan updates.</i> <p>4. Reduce the risk of natural hazards for socially vulnerable populations.</p> <ul style="list-style-type: none"> ○ <i>Objective 4.1: Identify and provide additional resources to vulnerable and marginalized populations that have reduced capacity to respond to hazards compared with the general population.</i> ○ <i>Objective 4.2: Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit socially vulnerable populations and underserved communities</i> <p>5. Address long-term vulnerabilities from hazardous dams.</p> <ul style="list-style-type: none"> ○ <i>Objective 5.1: Ensure dam infrastructure is maintained.</i> ○ <i>Objective 5.2: Support the identification of and access to funding for the repair or replacement of dams.</i> ○ <i>Objective 5.3: Ensure emergency action plans are developed and updated.</i> <p>Comments:</p> <ul style="list-style-type: none"> • Recommendation to update Goal 4 to include human-caused hazards. 	
7	<p>Workshop</p> <ul style="list-style-type: none"> • Work on New Action Development Workshop to identify problem areas within your jurisdiction • Work with Tetra Tech Planner(s) to complete missing worksheets 	-
8	<p>Next Steps</p> <ul style="list-style-type: none"> • Share information about the HMP Update via social media, community groups, and networks • Schedule meeting with Tetra Tech planner to complete annex • Complete and return the New Action Development worksheet within 2 weeks 	-
9	<p>Questions/Discussion</p> <ul style="list-style-type: none"> • Add that new FEMA maps have come out since the Risk Assessment was performed. 	-



	<ul style="list-style-type: none">• There is HMGP funding available through DHSES. Grant applications are due at the end of April. More information for these opportunities can be found on the DHSES website (www.dhses.ny.gov/hazard-mitigation).	
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Genesee County 2025 Hazard Mitigation Plan

Topic: Mitigation Strategy Workshop

Date: March 18, 2025

Time: 6:00 PM – 8:00 PM



Name	Title	Jurisdiction	Email
Emily Vassallo	Planner	Tetra Tech	emily.vassallo@tetratech.com
Jessica Stokes	Project Manager	Tetra Tech	jessica.stokes@tetratech.com
Felipe Otrameri	Director of Planning	Gen. Co. Planning Dept.	Felipe.Otrameri@geneseny.gov
JAMES THAYER	TOWN SUPERVISOR	TOWN OF PAVILION	supervisor@TOWN OF pavilion.com
Christine Abram	TIN office Admin	Tonawanda Seneca Nation	tonseneca@col.com



Genesee County 2025 Hazard Mitigation Plan

Topic: Mitigation Strategy Workshop

Date: March 18, 2025

Time: 6:00 PM – 8:00 PM



Name	Title	Jurisdiction	Email
Kevin Clapp	Supervisor - Hamlet	DHSES	Kevin.Clapp@dhSES.ny.gov
Raymond Tourt	Hwy Supt.	Town of Batavia	RTOURT@TOWNOFBATAVIA.COM

Types of Mitigation Actions

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

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

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

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



1



2



3



4

Public Outreach Strategy

- Public Outreach Toolkit
 - Social media templates and posts
 - Press release templates
 - Printable materials
- Surveys
 - Stakeholders - 0
 - Neighboring communities - 2
 - Public - 0
- County HMP Website
 - <https://www.geneseecountynyhmp.com/>

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5



6

Purpose of 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.
- Mitigation Actions** are specific activities, such as policies, projects, and studies, that stakeholders identify to reduce risk.
 - Forward-looking and incorporate changing conditions for the life of the County's assets
 - Consider changing demographics, development patterns, impacts of climate change.
 - Examples of actions may include elevating electrical and HVAC equipment to reduce the likelihood of damage from floodwaters or planting trees to lower temperatures exacerbated by pavement.
- Actions included in the plan are eligible for certain types of FEMA funding.**

7

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 is included in your annex. Each action will be developed on individual Action Worksheets to include detailed information that can serve as starting points for grant applications and guide implementation

8

Connecting to the Mitigation Strategy

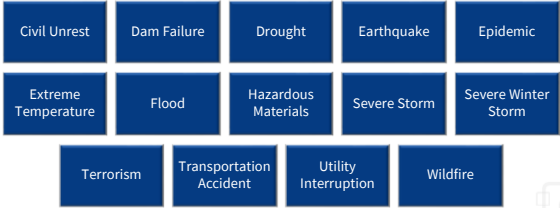
- Need a clear connection between vulnerabilities identified in the risk assessment and proposed mitigation actions.
- The capability assessment can provide insight into challenges and opportunities for the mitigation strategy.
- All actions proposed in the mitigation strategy must have a factual basis tied to hazards (*this shouldn't be a wish list*)

```

graph TD
    RA[Risk Assessment] --> MS((Mitigation Strategy))
    CA[Capability Assessment] --> MS
    PAC[Problem Areas in Community] --> MS
  
```

9

Hazards of Concern




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10

Capability Assessment

- Capabilities
 - What does your jurisdiction use to reduce risk to hazards?




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11


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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12




2025 HMP Goals and Objectives

Goal	
1	Reduce the likelihood and impacts of hazards on life, property, and the environment.
Objectives	
1.1	Develop and/or update local regulations based on current information and best practices.
1.2	Maintain natural systems to reduce the impacts of hazards.
1.3	<i>Strengthen understanding of, and adaptation to, a changing climate</i>
1.4	<i>Encourage the use of green and natural infrastructure</i>




13




2025 HMP Goals and Objectives

Goal	
2	Protect life, property, critical infrastructure, the environment, and the economy from the impacts of natural, technological, and human-caused disasters
Objectives	
2.1	Acquire, retrofit, or relocate structures from flood-prone areas.
2.2	Retrofit critical infrastructure to protect against hazard impacts.
2.3	Ensure that critical facilities can continue to function during and after hazard impacts.
2.4	Work with residents to maintain drainage ditches on private property.
2.5	Encourage residents and business owners to insure their property against hazard impacts, including through flood insurance through the National Flood Insurance Program (NFIP).




14



2025 HMP Goals and Objectives

Goal	
3	Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.
Objectives	
3.1	Work with legislators to develop and enact legislation that reduces long-term vulnerability to hazards.
3.2	Increase public awareness of the hazards and risks faced by the County's residents and businesses, and what measures they can take to protect their property.
3.3	<i>Increase local government official awareness regarding funding opportunities for mitigation and participating/contributing to plan updates.</i>



15

2025 HMP Goals and Objectives

Goal

4 Reduce the risk of natural hazards for socially vulnerable populations.

Objectives

4.1 Identify and provide additional resources to vulnerable and marginalized populations that have reduced capacity to respond to hazards compared with the general population.

4.2 Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit socially vulnerable populations and underserved communities

16

2025 HMP Goals and Objectives

Goal

5 Address long-term vulnerabilities from hazardous dams.


Objectives

5.1 Ensure dam infrastructure is maintained.

5.2 Support the identification of and access to funding for the repair or replacement of dams.

5.3 Ensure emergency action plans are developed and updated.

17



Developing New Potential Actions

18

Requirements for the Mitigation Strategy Update

- **Quality not quantity**
 - Each action needs detailed information on the why, who, what, and when of the action.
- **2019 projects**
 - If a project is not finished and still a priority, include in 2025 HMP
 - Remove general projects or make more specific
 - Remove ongoing capabilities like maintenance or annual outreach
- **Each hazard needs at least one mitigation action**
 - If your jurisdiction has Repetitive Loss Properties - an action is needed to mitigate the properties (elevation or acquisition) with specifics (street or neighborhood names, not specific addresses)
 - If your jurisdiction has a High Hazard Potential Dam, an action will be included to work with the dam owner to assess the integrity of the dam and ensure EAPs are up to date and shared.
 - If your jurisdiction has Critical Facilities identified to be in the flood hazard area, an action will be included to notify the facility manager(s) of the risk and inform them of flood mitigation methods.


19

Where do you need to focus?


- **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
- **Diverse actions**
 - You need at least **one action per hazard of concern**. Think about actions that can cover multiple hazards.
 - Include a variety of action types (e.g., plans, floodproof critical facilities, outreach programs, etc.)

20

Examples of Hazard Mitigation




- Enlarging the size of a culvert to increase capacity
- Implementing zoning to restrict development in hazard prone areas
- Public awareness campaigns aimed at educating the public on risk



- Conducting tabletop exercises and drills
- Stockpiling essential supplies and equipment
- Informing the public about emergency procedures

21

Other Mitigation Actions to Consider




- Substantial Damage Management Plan
- Actions to address high-hazard or significant-hazard dams
- Generators at critical facilities and community lifelines
- Floodproofing critical facilities and community lifelines
- Addressing repetitive and severe repetitive loss properties


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22


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.

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23

Hazard Mitigation Planning

- Proactive process to assess risk and reduce vulnerabilities.
- Provides an overview of the impact hazards may have on the community.
- Serves as a roadmap to reducing the impact of these hazards.
- Assist with building relationships and partnerships in the community.
- FEMA requires a hazard mitigation plan for certain grant funding.

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24

Time to Workshop!

25

Municipal Participation Status

- To date, we have not received all municipal worksheets. We can help you complete these!

Municipality	Worksheets	Municipality	Worksheets
Town of Alabama	HE, CA, NFIP, PA, PER, HR	Village of Corfu	HE, CA, NFIP, PA, PER, HR
Town of Alexander	HR	Town of Darien	PA
Village of Alexander	HE, CA, NFIP, PA, PER, HR	Town of Elba	HE, CA, NFIP, PA, PER, HR
Village of Attica	HE, CA, NFIP, PA, PER, HR	Town of Le Roy	PA, HR
City of Batavia	PA, HR	Town of Oakfield	HE, CA, NFIP, PA, PER, HR
Town of Batavia	HE, CA, NFIP, PA, PER	Village of Oakfield	HE, CA, NFIP, PA, PER, HR
Town of Bergen	HR	Town of Pavilion	HE, CA, NFIP, PA, PER, HR
Town of Bethany	HE, CA, NFIP, PA, PER, HR	Town of Pembroke	HR
Town of Byron	HE, CA, NFIP, PA, PER, HR	Town of Stafford	HE, CA, NFIP, PA, PER, HR


(HE) - Hazard Events; (CA) - Capability Assessment; (NFIP) - National Floodplain Insurance Program; (PA) - Previous Actions; (PER) - Permitting; (HR) - Hazard Ranking

26

New Action Development

- Consider information gathered to date from the capability assessment, risk assessment, and other input received from the public or other staff.
- Identify problems and potential solutions in the sections below that will provide the basis for your new mitigation actions. Identify the hazard(s) of concern for each of your proposed actions.
- Not every table needs actions listed but remember that each hazard of concern must be addressed with at least one mitigation action!

27



Next Steps

- **NOW:** Complete your worksheets, ask questions, and provide to Tetra Tech staff
- **NOW:** Provide update to Tetra Tech staff on any missing worksheets, when you will submit them, and how Tetra Tech can assist you
- **AFTER WORKSHOP:** Continue to share information about the HMP Update via social media, community groups, and networks. Let us know who you share information with!
- **NEXT MONTH:** Work with Tetra Tech planners to complete annexes and finalize actions.

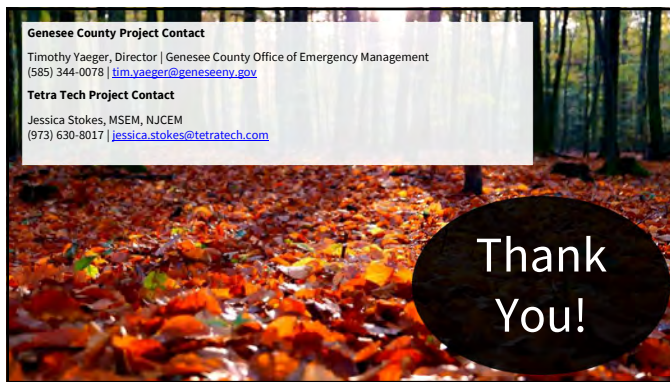
28

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Thank
You!

29



DAM FAILURE		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ○ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ Relocate out of dam failure inundation areas. • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Elevate home to appropriate levels. • Increase Capability: <ul style="list-style-type: none"> ○ Learn about risk reduction for the dam failure hazard. ○ Learn the evacuation routes for a dam failure event. ○ Educate yourself on early warning systems and the dissemination of warnings. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ○ Remove dams. ○ Harden dams. • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ Replace earthen dams with hardened structures. ○ Relocate facilities out of dam failure inundation areas. • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Floodproof facilities within dam failure inundation areas. • Increase Capability: <ul style="list-style-type: none"> ○ Educate employees on the probable impacts of a dam failure. ○ Develop a continuity of operations plan. 	<ul style="list-style-type: none"> • Manipulate the hazard: <ul style="list-style-type: none"> ○ Remove dams. ○ Harden dams. • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ Replace earthen dams with hardened structures. ○ Relocate critical facilities out of dam failure inundation areas. ○ Consider open space land use in designated dam failure inundations areas. • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Adopt higher floodplain standards in mapped dam failure inundation areas. ○ Retrofit critical facilities within dam failure inundation areas. • Increase Capability: <ul style="list-style-type: none"> ○ Map dam failure inundation areas. ○ Enhance emergency operations plans to include a dam failure component. ○ Institute monthly communications checks with dam operators. ○ Inform the public on risk reduction techniques. ○ Adopt real-estate disclosure requirements for the re-sale of property located within dam failure inundation areas. ○ Consider the probable impacts of climate change in assessing the risk associated with the dam failure hazard. ○ Establish early warning capability downstream of listed high-hazard dams. ○ Consider the residual risk associated with protection provided by dams in future land use decisions.



DROUGHT		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Consider stored water/captured water techniques during dry seasons.○ Establishing an irrigation time/scheduling program or process so that all agricultural land gets the required amount of water. Through incremental timing, each area is irrigated at different times so that all water is not consumed at the same time. Spacing usage may also help with recharge of groundwater.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Drought resistant landscapes.○ Reduce water system losses.○ Regularly check for leaks to minimize water supply losses.○ Install low-flow water saving showerheads and toilets.○ Turn water flow off while brushing teeth or during other cleaning activities.○ Adjust sprinklers to water the lawn and not the sidewalk or street.○ Run the dishwasher and washing machine only when they are full.○ Check for leaks in plumping or dripping faucets.○ Install rain-capturing devices for irrigation.○ Install graywater systems in homes to encourage water reuse.○ Rotate crops by growing a series of different types of crops on the same fields every season to reduce soil erosion.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Consider stored water/captured water techniques during dry seasons.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Drought resistant landscapes.○ Reduce private water system losses.○ Identify alternate water supply sources.○ Install low-flow water saving showerheads and toilets.○ Adjust sprinklers to water the lawn and not the sidewalk or street.• Increase Capability:<ul style="list-style-type: none">○ Practice active water conservation.○ Develop a COOP.○ Create a water conservation plan.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Ground Water Recharge through stormwater management.○ Implement cloud seeding techniques during dry seasons.• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Identify and create ground water back up sources.○ Create /identify new impounded water supply points.○ Developing new or upgrading existing water delivery systems to eliminate breaks and leaks.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Water use conflict regulations.○ Reduce water system losses.○ Distribute water saving kits.○ Identify sites ideally suited for ground water recharge.○ Implement stormwater retention in regions ideally suited for groundwater recharges.○ Utilize drought resistant landscapes on community owned facilities.○ Encourage citizens to take water-saving measures.• Increase Capability:<ul style="list-style-type: none">○ Public education on drought resistance.○ Identify alternative water supplies for time of drought. Mutual aid agreements with alternative suppliers.○ Develop a drought contingency plan.○ Develop criteria-"triggers" for drought related actions.○ Improve accuracy of water supply forecasts.



DROUGHT		
<ul style="list-style-type: none">○ Planting “cover crops,” such as oats, wheat, and buckwheat, to prevent soil erosion.● Increase Capability:<ul style="list-style-type: none">○ Practice active water conservation techniques.○ Seek ways to operate wells in such a way to enhance their functional longevity and supply capability.		<ul style="list-style-type: none">○ Provide incentives to influence active water conservation techniques such as water user rate reductions.○ Consider providing incentives to property owners that utilize drought resistant landscapes in the design of their homes.○ Use of water buffalo tankers.○ Promote well usage techniques that strive to enhance functional longevity and supply capability of private water supply wells.○ Develop an ordinance to restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, filling swimming pools, etc.



EARTHQUAKE		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate outside of hazard area (off soft soils).• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Retrofit structure (anchor house structure to foundation).○ Secure household items that can cause injury or damage such as water heaters, bookcases, and other appliances.○ Build to higher design standards.• Increase Capability:<ul style="list-style-type: none">○ Practice "drop, cover and hold"○ Develop household mitigation plan, such as creating a retrofit savings account, communication capability with outside, 72 hr. self-sufficiency during an event.○ Increase capability by having cash reserves for reconstruction.○ Become informed on the hazard and risk reduction alternatives available.○ Develop a post-disaster action plan for your household.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate/relocate mission critical functions outside hazard area where possible.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Build redundancy for critical functions/facilities.○ Retrofit critical buildings/areas housing mission critical functions.• Increase Capability:<ul style="list-style-type: none">○ Adopt higher standard for new construction -- Consider "performance-based design" when building new structures.○ Increase capability by having cash reserves for reconstruction.○ Inform your employees on the possible impacts of earthquake and how to deal with them at your work facility.○ Develop a Continuity of Operations Plan (COOP).	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate critical facilities or functions outside of hazard area where possible.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Harden infrastructure.○ Provide redundancy for critical functions.○ Adopt higher regulatory standards for structures.○ Conduct "rapid screening" programs for critical facilities to identify facilities that may be particularly prone to EQ damage, then develop investigation/action plans to address such structures.• Increase Capability:<ul style="list-style-type: none">○ Provide better hazard maps.○ Provide technical information and guidance.○ Enact tools to help manage development in hazard areas: tax incentives, information.○ Include retrofitting/replacement of critical system elements in CIP.○ Develop strategy to take advantage of post disaster opportunities.○ Warehouse critical infrastructure components such as pipe, power line, and road repair material.○ Develop and adopt a Continuity of Operations / Continuity of Government Plan (COOP/COG).○ Initiate triggers guiding improvements such as: (< 50% substantial damage/improvements).○ Further enhance seismic risk assessment to target high hazard



EARTHQUAKE		
Personal Scale	Corporate Scale	Government Scale
		<p>buildings for mitigation opportunities.</p> <ul style="list-style-type: none">○ Develop a post disaster action plan that includes a grant funding and debris removal components.○ Utilize warning systems.○ Educate builders and developers on seismic construction standards.



EXTREME TEMPERATURE		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Increase tree plantings○ Installation of green roofs to provide shade and remove heat○ Use cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold• Increase Capability:<ul style="list-style-type: none">○ None	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Increase tree plantings○ Installation of green roofs to provide shade and remove heat○ Use cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold• Increase Capability:<ul style="list-style-type: none">○ Set rules restricting outdoor work during extreme temperature events	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Increase tree plantings○ Encourage installation of green roofs to provide shade and remove heat○ Encourage the use of cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Require minimum temperatures in housing/landlord codes• Increase Capability:<ul style="list-style-type: none">○ Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur○ Establish warming and cooling centers○ Establish extreme temperature planning in emergency operation plans○ Create a database to track those individuals at high risk of death such as the elderly, homeless, etc.



FLOOD		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Clear stormwater drains and culverts• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate or re-locate outside of hazard area○ Institute low impact development techniques on property• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Retrofit existing structures and utilities above Base Flood Elevation (BFE)○ Floodproof existing structures (wet- or dry floodproofing).○ Store hazardous materials above BFE or outside of floodprone areas• Increase Capability:<ul style="list-style-type: none">○ Develop household mitigation plan, such as retrofit savings, communication capability with outside, 72-hr. self-sufficiency during and after an event○ Buy flood insurance	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Clear stormwater drains and culverts• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate business critical facilities or functions outside hazard area○ Institute low impact development techniques on property• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Build redundancy for critical functions/ retrofit critical buildings.○ Provide flood-proofing measures when new critical infrastructure must be located in floodplains.○ Harden structures and infrastructure (wet and dry-floodproofing)○ Store hazardous materials above BFE or outside of floodprone areas• Increase Capability<ul style="list-style-type: none">○ Increase capability by having cash reserves for reconstruction○ Develop and adopt a Continuity of Operations Plan (COOP)○ Solicit 'cost-sharing" through partnerships with private sector stakeholders on projects with multiple benefits.○ Dam owner/operators should continue to be aware of and understand dam inspection and reporting requirements.○ Ensure that all dam EAP's are kept in compliance with State Regulations.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Clear stormwater drains and culverts○ Dredging, levee construction, providing retention areas.○ Structural flood control: levee's, dams, channelization, revetments.○ Construct regional stormwater control facilities○ Lead and develop a county-wide stream clearing strategy including the development of thresholds for response/action.• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Locate/re-locate critical facilities outside of hazard area○ Acquire or relocate identified repetitive loss properties.○ Promote open space uses in identified high hazard areas via techniques such as: PUD's, easements, setbacks, greenways, sensitive area tracks.○ Adopt land development criteria such as PUD's, Density transfers, clustering○ Institute low impact development techniques on property○ Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff○ Pass an ordinance to incorporate additional zoning classifications into flood zones within each municipality.○ Increase floodplain standards within municipal ordinances and include provisions for enforcing best practice standards○ Consider increasing minimum freeboard beyond 1' freeboard state requirement○ Continue development application reviews by County Planning Board to reduce risky development practices.• Reduce vulnerability to the hazard:



FLOOD		
Personal Scale	Corporate Scale	Government Scale
		<ul style="list-style-type: none">○ Harden structures and infrastructure (wet and dry-floodproofing)○ Provide redundancy for critical functions and infrastructure○ Adopt appropriate regulatory standards such as cumulative substantial improvement/damage, freeboard, lower substantial damage threshold, compensatory storage.○ Stormwater management regulations and master planning.○ Adopt "no-adverse impact" floodplain management policies that strive to not increase the flood risk on down-stream communities.○ Participate in the Community Rating System (CRS)○ Implement as-built regulatory requirements○ Implement site review ordinances/requirements○ Establish stream maintenance programs with stakeholders (e.g. Soil and Water Conservation District) - support county leads of such efforts○ Incorporate retrofitting/replacement of critical facilities and infrastructure in Capital Improvement Plans (CIPs)○ Promote the use of vegetation/plants as green erosion control measures to reduce localized flooding.○ Work with environmental groups to address removal of debris, log jams, etc. in flood vulnerable stream sections● Increase Capability<ul style="list-style-type: none">○ Produce better hazard maps, and improve access to flood hazard mapping○ Capture/survey "high-water" marks during flood events.



FLOOD		
Personal Scale	Corporate Scale	Government Scale
		<ul style="list-style-type: none">○ Provide technical information and guidance on appropriate mitigation options available to businesses and homeowners○ Enact tools to help manage development in hazard areas (stronger controls, tax incentives, information)○ Establish an additional layer of zoning within flood hazard areas○ Develop strategy to take advantage of post disaster opportunities○ Improve compliance with and enforcement of the NFIP○ Develop mitigation partnerships with regional stakeholders○ Join Community Rating System (CRS) program, or improve level of participation in CRS○ Develop and implement a public information strategy for flood hazard awareness, flood insurance (NFIP) and mitigation○ Maintain existing data as well as gather new data needed to define risks and vulnerability.○ Create a building and elevation inventory of structures in the floodplain○ Identify flood prone areas that may be in need of new flood studies○ Establish a program to identify and educate owners of flood-prone properties of potential mitigation options (e.g. elevations, relocations)○ Charge a hazard mitigation fee on all new permits to create a hazard mitigation funding source for initiatives or grant cost share requirements.○ Integrate floodplain management policies into other planning mechanisms within the planning area.○ Establish a Stormwater Utility to deal with urban drainage/flooding issues



FLOOD		
Personal Scale	Corporate Scale	Government Scale
		<ul style="list-style-type: none">o Establish incentives to promote flood hazard mitigation of private property (e.g. permit fee waivers).o Adopt ordinances/standards for cumulative damages and/or improvementso Upgrade NFIP Floodplain ordinance, as well as other ordinances to current or above current state and federal standards.o Develop and adopt a COOPo Join "Storm Ready" Programo Participate in county and regional training programso Provide additional training/certification to NFIP floodplain administrators and code officials.o Implement annual training to account for turnover of municipal officials.o Maintain and enhance flood forecasting ability, including the establishment and maintenance of critical stream gageso Explore grant funding opportunities and potential partnerships to help maintain existing gages and install additional gages to improve forecasting and flood warning ability.o Promote awareness and participation in alert systemso Support and participate in regional flood management effortso Support and implement hazard disclosure for the sale/re-sale of property in identified risk zones.o Provide continued and enhanced training for emergency responderso Establish a revolving "bank" or budget line item to fund grant application supporto Continue to review updated Flood Insurance Rate Maps to ensure accuracy as well as maintaining lines of communication with homeowners to make them aware of



FLOOD		
Personal Scale	Corporate Scale	Government Scale
		<p>potential changes related to their property status.</p> <ul style="list-style-type: none">○ Provide trainings for FPA's on the NFIP/Floodplain Best Practices and also pursue CFM accreditation for municipal FPA's.○ Build and maintain relationships to develop regional watershed/floodplain mitigation solutions.○ Pursue grant funding opportunities to fund repairs of catchments and infrastructure on a proactive basis.○ Explore grant funding opportunities related to climate change to fund mitigation projects.



SEVERE STORM		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none"> • Manipulate the Hazard: <ul style="list-style-type: none"> ○ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Retrofit structures (improved roofing, glazing, insulation, etc.) ○ Provide for redundant heat and power ○ Contact municipality or utilities to trim or remove trees that could affect power lines ○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation Program. • Increase Capability: <ul style="list-style-type: none"> ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio) ○ Promote 72-hour self-sufficiency ○ Provide for redundant heat and power 	<ul style="list-style-type: none"> • Manipulate the Hazard: <ul style="list-style-type: none"> ○ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Relocate critical infrastructure, such as power lines, underground ○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations. • Increase Capability: <ul style="list-style-type: none"> ○ Contact municipality or utilities to trim or remove trees that could affect power lines ○ Create redundancy (e.g. backup generators) ○ Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio) ○ Develop a Continuity of Operations Plan (COOP) ○ Monitor impending storm events so that you can release employees in such a manner as to not negatively impact emergency response personnel/services. 	<ul style="list-style-type: none"> • Manipulate the Hazard: <ul style="list-style-type: none"> ○ None • Reduce exposure to the hazard: <ul style="list-style-type: none"> ○ None • Reduce vulnerability to the hazard: <ul style="list-style-type: none"> ○ Harden infrastructure such as locating utilities underground. ○ Trimming trees back from power lines ○ Designate and strengthen critical road sections and bridges. ○ Adopt ordinances that regulate the type and quantity of trees planted near utility lines ○ Relocate critical infrastructure, such as power lines, underground • Increase Capability: <ul style="list-style-type: none"> ○ Support programs such as "Tree Watch" that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc. ○ Enforce building codes ○ Increase communication alternatives ○ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors. ○ Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines ○ Promote awareness and participation in alert systems ○ Provide NOAA weather radios to the public ○ Create/Enhance "mutual aid" agreements for response to all emergencies



SEVERE STORM		
Personal Scale	Corporate Scale	Government Scale
		<ul style="list-style-type: none">○ Create/identify evacuation routes to be utilized during severe storm events.○ Develop debris management plans.○ Join "Storm-Ready" program○ Provide early warning of impending severe storm events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals○ Promote emergency power supplies to private property.○ Improve, expand or harden communications facilities and services○ Recruit additional emergency personnel or use mutual aid agreements○ Increase sheltering capabilities○ Increase capability to respond to power outages and downed power lines. Establish partnerships with utility providers through pro-active planning.



SEVERE WINTER STORM		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation)• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Insulate House to provide greater thermal efficiency and reduce heat loss.○ Provide redundant heat and power○ Insulate Structure○ Ensure natural gas input/release valves do not get covered in snow• Increase Capability:<ul style="list-style-type: none">○ Trim or remove trees that could affect power lines○ Prepare emergency food and supplies to be self-sufficient for at least 72 hours in the event of a severe winter storm.○ Be aware of inclement weather conditions and move your vehicles off of the street as severe weather systems approach.○ Retrofit structures	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Relocate critical infrastructure, such as power lines, underground○ Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.○ Install tree wire• Increase Capability:<ul style="list-style-type: none">○ Trim or remove trees that could affect power lines○ Create redundancy in utilities and communications○ Develop a Continuity of Operations Plan (COOP) to address operations before, during and after coastal storm events.○ Utilize weather radios at the work place to keep your employees aware of severe weather conditions.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Harden infrastructure such as locating utilities underground where appropriate.○ Trimming trees back from power lines○ Designate snow routes and strengthen critical road sections and bridges.○ Adopt codes and regulations that address the issues of parking of vehicles along roadways during severe weather events.○ Develop or enhance the capacity/capability of stormwater conveyance systems.○ Provide backup power sources at vital critical facilities.• Increase Capability:<ul style="list-style-type: none">○ Support programs that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.○ Establish and enforce building codes that require all roofs to withstand snow loads-- Develop/Improve/Enforce building Codes in Hazard Areas○ Increase communication alternatives○ Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.○ Modify landscape and other ordinances to encourage



SEVERE WINTER STORM		
Personal Scale	Corporate Scale	Government Scale
		<p>appropriate planting near overhead power, cable, and phone lines</p> <ul style="list-style-type: none">○ Provide weather radios to vulnerable populations○ Enhance public awareness campaigns to address those issues of alert and warning and actions to take during severe weather events.○ Utilize the best available technology to enhance the warning systems for all severe weather events (i.e.: tornado warning systems).○ Coordinate severe weather warning capabilities and the dissemination of warning amongst those agencies within the planning are with the highest degree of capability.○ Encourage local ordinances for planting tree near lines and join Tree City USA.○ Increase tree management programs.○ Join the Community Rating System○ Join "Storm-Ready"○ Retrofit critical structures and promote hazard resistant construction○ Keep open communications and education of hazards for mobile home communities○ Retrofit above-ground utilities to underground facilities if appropriate○ Create a salt reserve or research alternates to stretch salt reserve.○ Ensure accessibility to hospitals.○ Provide better debris logistics and removal.○ Provide better communication systems and back-up communication systems to inform



SEVERE WINTER STORM		
Personal Scale	Corporate Scale	Government Scale
		public of hazards and to communicate during the hazard event.



WILDFIRE		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ Clear potential fuels on property; dry, overgrown underbrush; diseased trees• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Clean and maintain defensible space around structures○ Locate outside hazard area○ Mow regularly• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Create and maintain defensible space around structures, provide water on site.○ Use fire-retardant building materials○ Create defensible spaces around your home.• Increase Capability:<ul style="list-style-type: none">○ Employ Firewise techniques to safeguard your home○ Identify alternative water supply points proximate to your home such as swimming pools, lakes, streams○ Support your local fire department○ Be aware of weather conditions that support/enhance the probability of wildfires	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Create and maintain defensible space around structure and infrastructure and provide water onsite○ Use fire-retardant building materials○ Provide stored water to be utilized for firefighting with appropriate fire department connections at facilities not equipped with fire hydrants or inadequate fire hydrant spacing• Increase Capability:<ul style="list-style-type: none">○ Support Firewise community initiatives	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">○ None• Reduce exposure to the hazard:<ul style="list-style-type: none">○ Clear fuels (dry underbrush, diseased trees) on land that can trigger and maintain wildfires○ Implement Best Management Practices on public lands• Reduce vulnerability to the hazard:<ul style="list-style-type: none">○ Create and maintain defensible space around structure and infrastructure○ Higher regulatory standards○ Establish water main supply and hydrants in unhydranted areas○ Decrease hydrant spacing• Increase Capability:<ul style="list-style-type: none">○ Public outreach and education efforts○ Identify fire response and alternative evacuation routes○ Seek alternative water supplies in urban wildland interface areas.○ Become a "Firewise" community○ Increase capability to fight wildfires utilizing equipment that can support wildfire fighting such as: tankers, engines with "pump-and-run" capabilities, dump tanks for tanker shuttle operations.○ Develop and implement wildfire management plans.○ Establish Mutual Aid Agreements with the Tender Task Force○ Develop a Water Supply Plan



**GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Draft Plan Review Meeting, Afternoon Option – AGENDA
MEETING DATE/TIME: July 30, 2025 @ 1:00PM**



Virtual via Teams

Dial-In Phone Number: +1 213-357-2812; Conference ID: 330 557 517#

Join by Meeting: <https://msteams.link/XEMD>

- 1. Opening Remarks**
- 2. Project Status**
 - Where we are in the process
 - Public outreach
- 3. Public and Stakeholder Engagement**
- 4. HMP Draft Review**
 - What's New?
 - 2025 Framework
 - Review Process
- 5. Next Steps**
- 6. Questions/Wrap Up**

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Genesee County, NY – Hazard Mitigation Plan 2025 Update
Draft Plan Review Meeting | Meeting Minutes



Purpose of Meeting:	Draft Plan Review Meeting – Afternoon Option	
Location of Meeting:	Virtual via Teams	
Date of Meeting:	July 30, 2025 (1:00 pm – 2:00 pm)	
Attendees:	<div> <ul style="list-style-type: none"> • Genesee County Emergency Management Services <ul style="list-style-type: none"> ○ Tim Yaeger, Coordinator ○ Gary Patnode, Deputy Coordinator • Genesee County Planning Department <ul style="list-style-type: none"> ○ Felipe Oltramari, Director ○ Julie Boasi, Senior Planner • Genesee County Department of Social Services and Youth <ul style="list-style-type: none"> ○ Carla Mindler, Commissioner • Genesee County Public Health <ul style="list-style-type: none"> ○ David Bell, Public Health Emergency Preparedness Coordinator • Genesee County Sheriff's Office <ul style="list-style-type: none"> ○ Frank Riccobono, Director of Emergency Communications ○ Brian Frieday, Chief Deputy • Genesee County Manager's Office <ul style="list-style-type: none"> ○ Tammi Ferringer, Deputy County Manager </div> <div> <ul style="list-style-type: none"> • Genesee County Economic Development Corporation <ul style="list-style-type: none"> ○ Mark Masse, Senior VP of Operations • Genesee County Highway Department <ul style="list-style-type: none"> ○ Laura Wadhams, Assistant County Engineer • Genesee County Soil and Water Conservation District <ul style="list-style-type: none"> ○ Jared Elliott, Senior Field Manager • Alabama (T) <ul style="list-style-type: none"> ○ Robert Crossen, Supervisor • Batavia (C) <ul style="list-style-type: none"> ○ Joshua Graham, Fire Chief • Byron (T) <ul style="list-style-type: none"> ○ Candace Hensel, Town Supervisor • NYS DHSES <ul style="list-style-type: none"> ○ Kevin Clapp, HMP Supervisor • Tetra Tech <ul style="list-style-type: none"> ○ Jessica Stokes, Project Manager ○ Emily Vassallo, Lead Planner </div>	
Agenda Summary:	The purpose of the meeting was to provide an update on the planning process and status update, provide an opportunity for the Steering Committee to comment on the draft 2025 Genesee County HMP framework, discuss the Plan Maintenance strategy for the 2025 HMP, review the FEMA Approval Process, discuss next steps, and address any questions or comments.	
Item No.	Description	Action item(s):
1	Introductions	-
2	Project Status <ul style="list-style-type: none"> • In Kind Tracking • Public Outreach and Engagement <ul style="list-style-type: none"> ○ Post links on social media and department/agency websites ○ Make efforts to reach out to: <ul style="list-style-type: none"> ▪ General Public ▪ Stakeholders ▪ Neighbors 	Planning Partnership <ul style="list-style-type: none"> • Post links on social media and department/agency websites • Make efforts to reach out to general public, stakeholders, and neighbors
3	HMP Draft Review <ul style="list-style-type: none"> • What's New in the 2025 Update? • New FEMA requirements • Updated critical facilities inventory and included community lifelines • Incorporated new hazards of concern and performed new risk analysis • Enhanced the capability assessment for each participating jurisdiction 	-
4	2025 HMP Framework <ul style="list-style-type: none"> • Volume I <ul style="list-style-type: none"> ○ Executive Summary <ul style="list-style-type: none"> ▪ Provides an overview of how the plan is laid out by describing the various chapters within the plan ○ Chapter 1 Introduction 	-



	<ul style="list-style-type: none"> ▪ This is the introduction of the HMP, explains the update process, who participated, and what changes have been made since the last plan. ○ Chapter 2 Planning Process <ul style="list-style-type: none"> ▪ Provides a timeline of how the planning process was done and everything that went into developing the plan. It includes meeting dates, activities, and plan participants. ○ Chapter 3 County Profile <ul style="list-style-type: none"> ▪ Provides general information for the Planning Area and critical facilities/lifelines located within the area. ○ Chapter 4 Risk Assessment <ul style="list-style-type: none"> ▪ Provides a foundation for the rest of the planning process – which focuses on identifying and prioritizing actions to reduce risk to hazards. ○ Chapter 5 Hazard of Concern identification <ul style="list-style-type: none"> ▪ Describes the process to review all potential hazards and identify the hazards that have the potential to impact the Planning Area ○ Chapters 6 through 19 Hazard Profiles <ul style="list-style-type: none"> ▪ Documents the general description of the hazard and the outcome of the risk analysis. It is broken down into 2 sections – hazard profile and vulnerability assessment ○ Chapter 20 Hazard Ranking <ul style="list-style-type: none"> ▪ Provides information on the methodology used to determine the preliminary hazard rankings ○ Chapter 21 Capability Assessment <ul style="list-style-type: none"> ▪ Identifies the primary types of capabilities – planning and regulatory, administrative, and technical, financial, and education and outreach –existing plans, policies, programs, etc. available at the county, state, and federal level to help the County and municipalities accomplish mitigation. ○ Chapter 22 Mitigation Strategy <ul style="list-style-type: none"> ▪ Gives an overview of the process and then in each annex, we show the projects and procedures you all will do to reduce or eliminate future losses from hazards. ○ Chapter 23 Plan Maintenance <ul style="list-style-type: none"> ▪ Describes how the County will keep the hazard mitigation plan up to date over the next five years. • Volume II <ul style="list-style-type: none"> ○ Chapter 1 Planning Partnership <ul style="list-style-type: none"> ▪ Gives an overview of how each jurisdiction participated in the plan and how the annexes are laid out. ○ Chapters 2 through 23 Jurisdictional Annexes <ul style="list-style-type: none"> ▪ Where the individual jurisdictional annexes of the plan are located. It shows us who participated in the plan, gives a general description of the municipality, outlines and summarizes your capabilities at the local level, provides the jurisdictional hazard ranking, includes a status of mitigation actions from 2019 and then includes mitigation actions for the 2025 HMP. • Appendices: This is where you’ll find a draft adoption/resolution for when you need to adopt the plan, tables of who participated in the process and how; 	
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	<p>meeting documentation (minutes, presentations, etc.), public and stakeholder outreach; mitigation strategy data; plan maintenance tools; critical facilities (the list of facilities will not be posted for public review due to their sensitive nature); and linkage procedures for anyone who didn't participate this time around and would like to join the plan in the next 5 years.</p> <ul style="list-style-type: none"> ○ Appendix A. Adoptions ○ Appendix B. Meeting Documentation ○ Appendix C. Outreach ○ Appendix D. Participation ○ Appendix E. Action Worksheet ○ Appendix F. Plan Maintenance ○ Appendix G. Critical Facilities ○ Appendix H. Risk Assessment Supplement ○ Appendix I: Mitigation Strategy Supplement ○ Appendix J: NYS DHSES Guidance 	
5	<p>FEMA Approval Process</p> <ul style="list-style-type: none"> • The plan is made available for public and State review. <ul style="list-style-type: none"> 1. Feedback and comments will be incorporated into a second draft. • The second draft will be submitted to FEMA for review and approval. <ul style="list-style-type: none"> 1. If FEMA has questions or comments those will be addressed. 2. FEMA will grant the plan 'Approvable Pending Adoption' status, meaning FEMA will approve the plan once it has been locally adopted. • The County and municipalities will formally adopt the plan. <ul style="list-style-type: none"> ○ Resolution is submitted to FEMA and FEMA grants final approval. 	-
6	<p>Review the Draft Plan</p> <ul style="list-style-type: none"> • The entire plan will be posted on the Genesee County HMP website for a 30-day review period (starting tomorrow, July 31) <ul style="list-style-type: none"> ○ https://www.geneseecountynyhmp.com/draft-plan/ ○ You can review the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA • NYSDHSES will conduct their review concurrently with the public review period • Public feedback to be incorporated as appropriate prior to submittal to FEMA for their review • If needed, we will hold a brief meeting to discuss public comments and how to incorporate – date TBD 	-
7	<p>Next Steps</p> <ul style="list-style-type: none"> • Draft Plan Review Meeting – TODAY! • Public Review Period (30 days) – July 31, 2025 through August 30, 2025 • NYSDHSES Review occurring in tandem with Public Review • Submit Draft Plan for FEMA Review in October 	-
8	<p>Questions/Discussion</p> <ul style="list-style-type: none"> • None 	-



**GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE
Draft Plan Review Meeting, Evening Option – AGENDA
MEETING DATE/TIME: July 30, 2025 @ 6:00PM**



Virtual via Teams

Dial-In Phone Number: +1 213-357-2812; Conference ID: 849 638 876#

Join by Meeting: <https://msteams.link/FEYJ>

- 1. Opening Remarks**
- 2. Project Status**
 - Where we are in the process
 - Public outreach
- 3. Public and Stakeholder Engagement**
- 4. HMP Draft Review**
 - What's New?
 - 2025 Framework
 - Review Process
- 5. Next Steps**
- 6. Questions/Wrap Up**

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Genesee County, NY – Hazard Mitigation Plan 2025 Update
Draft Plan Review Meeting | Meeting Minutes



Purpose of Meeting:	Draft Plan Review Meeting – Evening Option	
Location of Meeting:	Virtual via Teams	
Date of Meeting:	July 30, 2025 (6:00 pm – 7:00 pm)	
Attendees:	No attendees	
Agenda Summary:	The purpose of the meeting was to provide an update on the planning process and status update, provide an opportunity for the Steering Committee to comment on the draft 2025 Genesee County HMP framework, discuss the Plan Maintenance strategy for the 2025 HMP, review the FEMA Approval Process, discuss next steps, and address any questions or comments.	
Item No.	Description	Action item(s):
1	Introductions	-
2	Project Status <ul style="list-style-type: none"> In Kind Tracking Public Outreach and Engagement <ul style="list-style-type: none"> Post links on social media and department/agency websites Make efforts to reach out to: <ul style="list-style-type: none"> General Public Stakeholders Neighbors 	Planning Partnership <ul style="list-style-type: none"> Post links on social media and department/agency websites Make efforts to reach out to general public, stakeholders, and neighbors
3	HMP Draft Review <ul style="list-style-type: none"> What's New in the 2025 Update? New FEMA requirements Updated critical facilities inventory and included community lifelines Incorporated new hazards of concern and performed new risk analysis Enhanced the capability assessment for each participating jurisdiction 	-
4	2025 HMP Framework <ul style="list-style-type: none"> Volume I <ul style="list-style-type: none"> Executive Summary <ul style="list-style-type: none"> Provides an overview of how the plan is laid out by describing the various chapters within the plan Chapter 1 Introduction <ul style="list-style-type: none"> This is the introduction of the HMP, explains the update process, who participated, and what changes have been made since the last plan. Chapter 2 Planning Process <ul style="list-style-type: none"> Provides a timeline of how the planning process was done and everything that went into developing the plan. It includes meeting dates, activities, and plan participants. Chapter 3 County Profile <ul style="list-style-type: none"> Provides general information for the Planning Area and critical facilities/lifelines located within the area. Chapter 4 Risk Assessment <ul style="list-style-type: none"> Provides a foundation for the rest of the planning process – which focuses on identifying and prioritizing actions to reduce risk to hazards. Chapter 5 Hazard of Concern identification 	-



	<ul style="list-style-type: none"> ▪ Describes the process to review all potential hazards and identify the hazards that have the potential to impact the Planning Area ○ Chapters 6 through 19 Hazard Profiles <ul style="list-style-type: none"> ▪ Documents the general description of the hazard and the outcome of the risk analysis. It is broken down into 2 sections – hazard profile and vulnerability assessment ○ Chapter 20 Hazard Ranking <ul style="list-style-type: none"> ▪ Provides information on the methodology used to determine the preliminary hazard rankings ○ Chapter 21 Capability Assessment <ul style="list-style-type: none"> ▪ Identifies the primary types of capabilities – planning and regulatory, administrative, and technical, financial, and education and outreach –existing plans, policies, programs, etc. available at the county, state, and federal level to help the County and municipalities accomplish mitigation. ○ Chapter 22 Mitigation Strategy <ul style="list-style-type: none"> ▪ Gives an overview of the process and then in each annex, we show the projects and procedures you all will do to reduce or eliminate future losses from hazards. ○ Chapter 23 Plan Maintenance <ul style="list-style-type: none"> ▪ Describes how the County will keep the hazard mitigation plan up to date over the next five years. • Volume II <ul style="list-style-type: none"> ○ Chapter 1 Planning Partnership <ul style="list-style-type: none"> ▪ Gives an overview of how each jurisdiction participated in the plan and how the annexes are laid out. ○ Chapters 2 through 23 Jurisdictional Annexes <ul style="list-style-type: none"> ▪ Where the individual jurisdictional annexes of the plan are located. It shows us who participated in the plan, gives a general description of the municipality, outlines and summarizes your capabilities at the local level, provides the jurisdictional hazard ranking, includes a status of mitigation actions from 2019 and then includes mitigation actions for the 2025 HMP. • Appendices: This is where you'll find a draft adoption/resolution for when you need to adopt the plan, tables of who participated in the process and how; meeting documentation (minutes, presentations, etc.), public and stakeholder outreach; mitigation strategy data; plan maintenance tools; critical facilities (the list of facilities will not be posted for public review due to their sensitive nature); and linkage procedures for anyone who didn't participate this time around and would like to join the plan in the next 5 years. <ul style="list-style-type: none"> ○ Appendix A. Adoptions ○ Appendix B. Meeting Documentation ○ Appendix C. Outreach ○ Appendix D. Participation ○ Appendix E. Action Worksheet ○ Appendix F. Plan Maintenance ○ Appendix G. Critical Facilities ○ Appendix H. Risk Assessment Supplement ○ Appendix I: Mitigation Strategy Supplement ○ Appendix J: NYS DHSES Guidance 	
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Genesee County, NY – Hazard Mitigation Plan 2025 Update
Draft Plan Review Meeting | Meeting Minutes



5	FEMA Approval Process <ul style="list-style-type: none"> The plan is made available for public and State review. <ul style="list-style-type: none"> 1. Feedback and comments will be incorporated into a second draft. The second draft will be submitted to FEMA for review and approval. <ul style="list-style-type: none"> 1. If FEMA has questions or comments those will be addressed. 2. FEMA will grant the plan 'Approvable Pending Adoption' status, meaning FEMA will approve the plan once it has been locally adopted. The County and municipalities will formally adopt the plan. <ul style="list-style-type: none"> o Resolution is submitted to FEMA and FEMA grants final approval. 	-
6	Review the Draft Plan <ul style="list-style-type: none"> The entire plan will be posted on the Genesee County HMP website for a 30-day review period (starting tomorrow, July 31) <ul style="list-style-type: none"> o https://www.geneseecountynyhmp.com/draft-plan/ o You can review the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA NYSDHSES will conduct their review concurrently with the public review period Public feedback to be incorporated as appropriate prior to submittal to FEMA for their review If needed, we will hold a brief meeting to discuss public comments and how to incorporate – date TBD 	-
7	Next Steps <ul style="list-style-type: none"> Draft Plan Review Meeting – TODAY! Public Review Period (30 days) – July 31, 2025 through August 30, 2025 NYSDHSES Review occurring in tandem with Public Review Submit Draft Plan for FEMA Review in October 	-
8	Questions/Discussion	-



TETRA TECH

Genesee County, NY Hazard Mitigation Plan – 2025 Update

Draft Plan Review Meeting

July 30, 2025

While waiting for the meeting to start,
please use the chat function to enter your
name, title, and affiliation!



Today's Agenda

1. Welcome and Introductions
2. Public and Stakeholder Outreach
3. HMP Draft Review
 - What's New?
 - 2025 Framework
 - Review Process
4. Next Steps
5. Questions/Wrap Up

Project Status



Public Outreach and Engagement



- Public Outreach Toolkit –
 - Social media templates and posts
 - Printable materials
- Surveys
 - Input on draft plan
- HMP website
 - www.geneseecountynyhmp.com
- Make efforts to reach out to:
 - General Public
 - Stakeholders
 - Neighbors



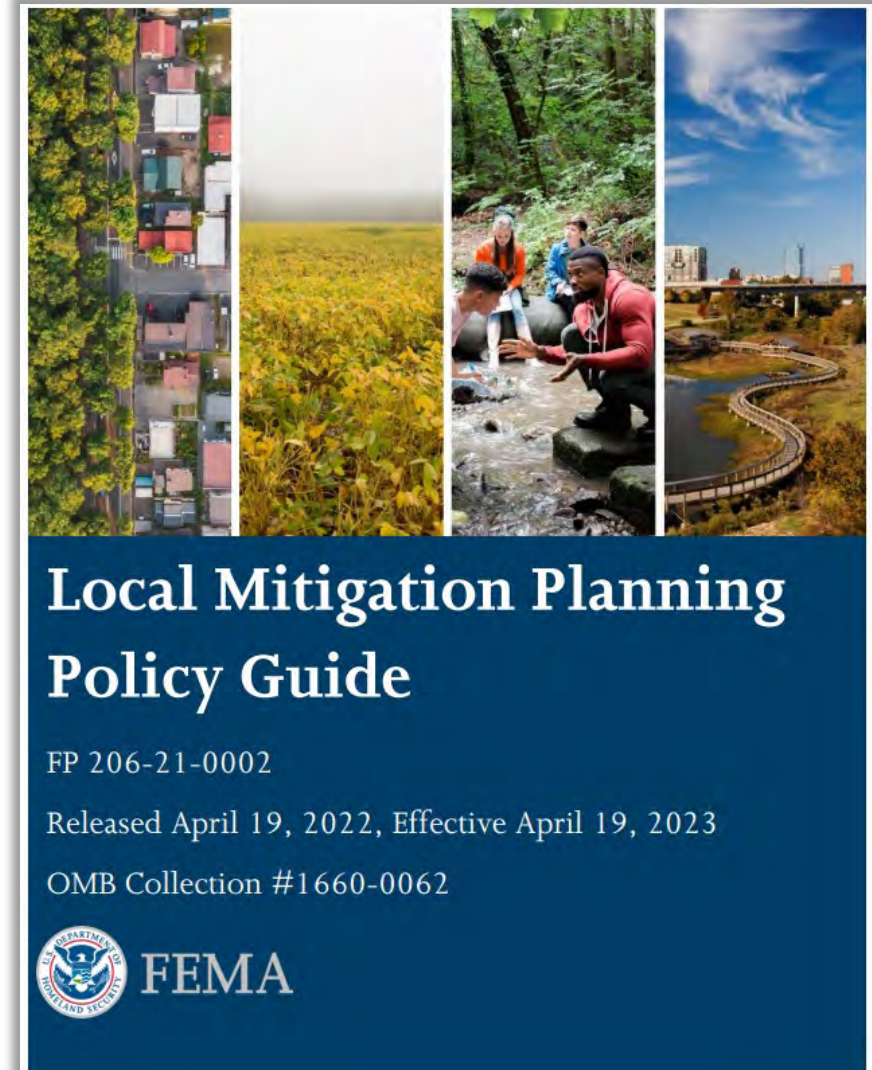
HMP Draft Review



What's New in the 2025 Update?



- New FEMA requirements
 - Participation – engaged and actively participating throughout the process
 - Stakeholder involvement
 - Community lifelines
 - Current and future capabilities integrating hazard mitigation
 - One mitigation action per hazard



What's New in the 2025 Update?

- **Critical facilities reorganized as Lifeline facilities –**
 - This includes – airports, bridges, cell towers, correctional facilities, dams, schools/daycares, EMS, fire, hazmat, hospitals/health care, police, utilities, tornado sirens, wastewater
 - Inventory has been updated





What's New in the 2025 Update?

- **Hazards of Concern –**

- Incorporated new hazards, and concise hazard profiles, including recent events
- Risk assessments for each hazard
- Adaptive capacity to reduce vulnerability used in hazard ranking
- Impacts on population (general and socially vulnerable), buildings, lifelines, and economy



What's New in the 2025 Update?

- **Jurisdictional Annexes**

- Enhanced capability assessment including how hazard mitigation is integrated
- One mitigation action for every hazard of concern





2025 HMP Framework

Volume I

- Executive Summary
- Chapter 1. Introduction
- Chapter 2. Planning Process
- Chapter 3. County Profile
- Chapter 4. Risk Assessment Methodology
- Chapter 5. Hazards of Concern ID
- Chapters 6-13. Hazard Profiles
 - Dam and Levee Failure, Flood, Landslide, Pandemic, Severe Storm, Severe Winter Storm, Utility Failure, Wildfire
- Chapter 14. Hazard Ranking
- Chapter 15. Capability Assessment
- Chapter 16. Mitigation Strategy
- Chapter 17. Plan Maintenance



2025 HMP Framework

Volume II

- Chapter 1. Introduction
- Chapters 2-23. Jurisdictional Annexes

Appendices

- Appendix A. Adoptions
- Appendix B. Meeting Documentation
- Appendix C. Outreach
- Appendix D. Participation
- Appendix E. Action Worksheet
- Appendix F. Plan Maintenance
- Appendix G. Critical Facilities
- Appendix H. Risk Assessment Supplement
- Appendix I. Mitigation Strategy Supplement
- Appendix J. NYS DHSES Guidance

Volume I

Executive Summary

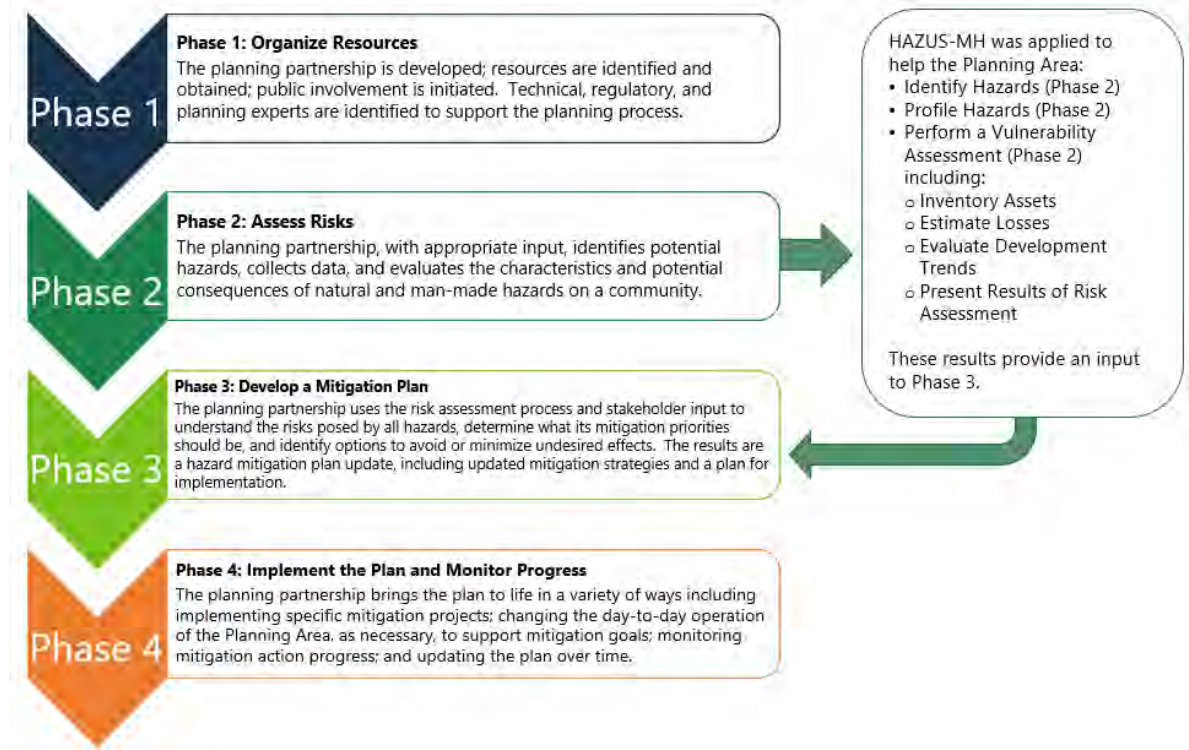


- Provides an overview of how the plan is laid out by describing the various chapters within the plan
 - Light summaries of key components of the HMP
 - Hazard Mitigation Overview
 - Planning Process
 - Involvement by Stakeholders and the Public
 - Risk Assessment for Local Hazards of Concern
 - Capability Assessment and Plan Integration
 - Mitigation Strategy

Volume I

1. Introduction

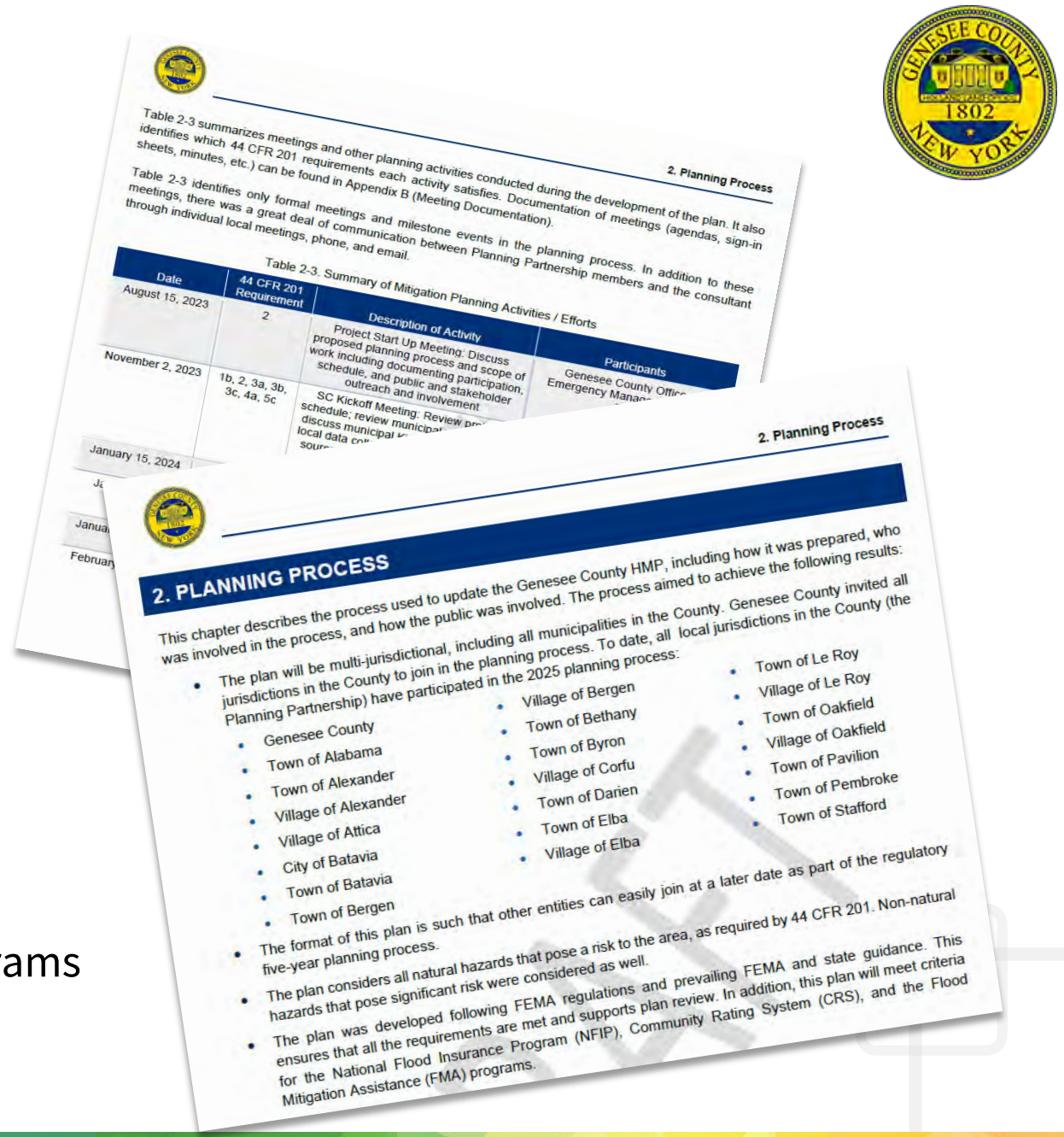
- Plan Purpose
- Background of the plan
- Plan Organization
- Planning Differences – 2019 HMP vs. 2025 HMP



Volume I

2. Planning Process

- Introduction
- Organization of the Planning Process
 - Organization of the Planning Partnership
 - Planning Activities
- Stakeholder Outreach and Involvement
 - Federal, State, and County Agencies
 - Regional and Local Stakeholders
 - Stakeholder and Neighbor Survey Summaries
- Public Participation – Public Involvement
 - Public Survey Summary
- Plan Integration
- Integration with Planning Mechanisms and Programs
- Continued Public Involvement



Volume I

3. County Profile



- General Information
- Major Past Hazard Events
- Physical Setting
 - Location
 - Hydrography and Hydrology
 - Topography and Geography
 - Climate
 - Land Use and Land Cover
- Population and Demographics
 - General Population Characteristics
 - Vulnerable Populations
 - Population Trends
- General Building Stock
 - Development Trends and New Development
- Lifeline Facilities
 - Formerly discussed as Critical Facilities

Volume I

4. Risk Assessment Methodology



- Describes the various procedures and tools used to complete the risk assessment
- Steps to do so included:
 - Identifying and profiling each hazard of concern
 - Determine exposure to each hazard
 - Assess the vulnerability of exposed population/buildings/economy



5. Hazard of Concern Identification



- Describes the process to review all potential hazards and identify the hazards that have the potential to impact the Planning Area
 - Input from all participating jurisdictions
 - Review of the New York State Hazard Mitigation Plan
 - Review of the 2019 Genesee County HMP
 - Research on the frequency, magnitude, and costs associated with hazards that have previously or could feasibly impact the region
 - Qualitative information regarding natural (not human-caused) hazards and the perceived vulnerability of the study area's assets to them.

Volume I

6 - 19. Hazard Profiles



- Created individual chapters for each hazard of concern.
- Each chapter includes:
 - Hazard Profile – description, location, extent, worst-case scenario, previous occurrences, climate change projections, and probability of future events
 - Vulnerability Assessment – impact on life/health/safety, impact on building stock and critical facilities, impact on economy, future changes that may impact vulnerability, impacts to natural, historical, and cultural resources, and changes in vulnerability since the last plan

Volume I

20. Hazard Ranking



- Provides a preliminary ranking (high, medium, low) of each hazard to show the Planning Area's hazards of greatest risk
- Provides information on the methodology used to determine the preliminary hazard rankings





Volume I

21. Capability Assessment

- What is currently available at the federal, state, and county level to support mitigation in Genesee County
 - Available plans, programs, & resources
 - Administrative and technical capabilities
 - Fiscal capabilities
 - Education and outreach



Volume I

22. Mitigation Strategy



- Past accomplishments
- Goals and Objectives
- Mitigation strategy development and update
 - Action identification
 - Evaluation and prioritization
 - Benefit/cost review



Volume I

23. Plan Maintenance



- Ongoing Planning Partnership – meet annually to discuss HMP
- Monitoring
- Continuous evaluation and progress reports
- Updating
- Integrating the HMP with existing and future programs
- Continued public involvement



Volume II

- **Chapter 1 – Introduction**
 - Participating jurisdictions
 - Introduction to jurisdictional annexes
- **Chapters 2-23 – Jurisdictional Annexes**
 - Points of Contact and Who Participated
 - Jurisdictional Profile
 - Capabilities
 - Risk Assessment
 - Status of Past Mitigation Actions
 - Current Mitigation Actions



Appendices



- Appendix A. Adoptions
- Appendix B. Meeting Documentation
- Appendix C. Outreach
- Appendix D. Participation
- Appendix E. Action Worksheet
- Appendix F. Plan Maintenance
- Appendix G. Critical Facilities
- Appendix H. Risk Assessment Supplement
- Appendix I. Mitigation Strategy Supplement
- Appendix J. NYS DHSES Guidance

FEMA Approval Process



- The plan is made available for public review.
- NYS DHSES is reviewing the plan concurrently with the public review period.
- The second draft will be submitted to FEMA for review and approval
 - Once approved, FEMA will grant the plan 'Approvable Pending Adoption' status, meaning FEMA will approve the plan once it has been locally adopted.
- The County and municipalities will formally adopt the plan.
 - Resolution is submitted to FEMA and FEMA grants final approval.





Next Steps

- Public Review Period (30 days) – July 31 through August 30
- NYS DHSES Review is occurring in tandem with the Public Review Period
- Submit Draft Plan for FEMA Review in October; begin adoption
- FEMA grants APA (November/December); continue adoption
- Implement Projects and Maintain the Plan ➡ Increase Resilience!





Questions?

Genesee County Project Contact

Timothy Yaeger, Director | Genesee County Office of Emergency Management
(585) 344-0078 | tim.yaeger@geneseeny.gov

Tetra Tech Project Contact

Jessica Stokes, MSEM, NJCEM
(973) 630-8017 | jessica.stokes@tetrattech.com

Thank
You!

APPENDIX C: PUBLIC AND STAKEHOLDER OUTREACH



This appendix provides documentation of public and stakeholder outreach. Stakeholder involvement in this planning process was broad and productive as discussed and further documented in Chapter 2 (Planning Process). Public and stakeholder input has been incorporated throughout this HMP as appropriate, as identified in Chapter 2 and the References section, as well as within specific mitigation initiatives identified within the jurisdictional annexes (Volume II). Respondent feedback filtered by jurisdiction is included in each jurisdictional annex as available to provide an indication of community resident concerns related to natural hazards.

Genesee County Public Survey Results

This section contains information and results gathered from the Genesee County Public Survey. The main objective of this survey was to gather information from citizens regarding their level of knowledge regarding hazard vulnerability and knowledge of hazard mitigation information for their local communities. Roughly 15 respondents completed this survey during the planning process. The survey was available on Genesee County website and the HMP website at (www.geneseecountynyhmp.com) The survey results are provided in the following pages, with personal information redacted.

Stakeholder Surveys

In addition to collecting information from residents of Genesee County, surveys were developed for the agencies and stakeholders in the County. Unlike steering committee or planning partnership members, stakeholders may not be involved in all stages of the planning process, but they may have information or input to provide. In order to gather that information, the surveys were sent to the following stakeholders: law enforcement, firefighters, emergency medical services, highway and public works, business and commerce, hospitals and health care providers, and utilities. Results of the surveys are provided in the following pages, with personal information redacted.


Neighboring Community Survey

A neighboring community survey was sent to the surrounding communities of Genesee due to their proximity to the County and because the effects of hazard events that impact Genesee County would be similar to that of their neighbors. A summary of the results are included on the following pages.

Website and Social Media Posts

The following provides screenshots of websites, news articles, and social media posts.

Social Media Graphics




GENESEE COUNTY

HAZARD MITIGATION PLAN SURVEY

Genesee County is seeking input for the 2025 Hazard Mitigation Plan. The plan will address the County's risks posed by hazards (e.g., flood, drought, winter storms) and identify specific strategies to help reduce or eliminate risks.

TAKE THE SURVEY

<https://bit.ly/3SwnTQH>



**WE NEED YOUR
HELP**

Genesee County is updating the Hazard Mitigation Plan and we want to hear from you.

Tell us what you think the updated plan should focus on by taking a quick survey:

<https://bit.ly/3SwnTQH>



WE NEED YOUR INPUT ON DISASTERS!

GENESEE COUNTY HAZARD MITIGATION PLAN PUBLIC SURVEY

CLICK HERE TO TAKE THE PUBLIC SURVEY



WE NEED YOUR HELP TO UPDATE GENESEE COUNTY'S HAZARD MITIGATION PLAN



Genesee County is a beautiful place to live, but it is also at risk for natural disasters including flooding, winter storms, and drought.



The County is currently updating the Hazard Mitigation Plan. The plan will assess the County's risk to hazards and disasters and develop a blueprint to reduce impacts and protect our county and residents.



**TAKE A QUICK SURVEY TO
HELP US WITH THE UPDATE:
<https://bit.ly/3SwnTQH>**



SCAN ME

GENESEE COUNTY HAZARD MITIGATION PLAN

GENESEE COUNTY IS WORKING ON AN UPDATE TO THE COUNTY'S HAZARD MITIGATION PLAN. IF YOU LIVE OR WORK IN THE COUNTY, WE NEED YOUR INPUT ABOUT LOCAL HAZARDS.

Take a quick survey to help us with the update.

<https://bit.ly/3SwnTQH>



2025



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE

Have you been impacted by storms in the County? We want to hear from you!

<https://www.surveymonkey.com/r/GeneseePublicSurvey>





GENESEE COUNTY HAZARD MITIGATION PLAN 2025 UPDATE

Genesee County is making efforts to build a stronger community and could really use your assistance! Would you mind taking a quick survey below and letting us know how you keep yourself safe when natural disasters strike?



<https://www.surveymonkey.com/r/GeneseePublicSurvey>



HAZARD MITIGATION PLAN UPDATE

Genesee County is making efforts to build a stronger community and could really use your assistance! Would you mind taking a quick survey below and letting us know how you keep yourself safe when natural disasters strike? Scan the QR code to take the survey.



<https://www.surveymonkey.com/r/GeneseePublicSurvey>

WANT TO LEARN
MORE? CHECK OUT
THE HMP WEBSITE!



<https://www.geneseecountynyhmp.com/>



GENESEE COUNTY HAZARD MITIGATION PLAN 2025 UPDATE

Help Genesee County reduce impacts from the next disaster. Share your thoughts by taking a quick survey.



<https://www.surveymonkey.com/r/GeneseePublicSurvey>



Genesee County Hazard Mitigation Plan 2025 Update

The Genesee County Office of Emergency Management is seeking public input regarding the potential natural hazards occurring in our county. We invite you to complete a quick survey to express your concerns and share your insights on the different natural hazards.

Use the link or scan below to take the survey:
<https://www.surveymonkey.com/r/GeneseePublicSurvey>



GENESEE COUNTY HAZARD MITIGATION PLAN UPDATE



**REPRESENT AN ORGANIZATION OR GROUP THAT
WORKS IN THE COUNTY? WE NEED YOUR HELP!**

USE THE LINK OR SCAN THE QR CODE TO TAKE THE STAKEHOLDER SURVEY:



[HTTPS://BIT.LY/3WBAJDZ](https://bit.ly/3WBAJDZ)

GENESEE COUNTY HAZARD MITIGATION PLAN 2025 UPDATE

CALLING ALL NEIGHBORING COMMUNITIES

Due to your proximity to Genesee County, the effects of a disaster may have similar impacts in your community. Involvement in this process could reap mutual benefits. By participating in the review of this plan, you will be engaging in the regional coordination of disaster mitigation planning, which is one of the intents of the Mitigation Planning Regulations (44 CFR 201).

**USE THE LINK OR SCAN THE QR
CODE TO TAKE THE NEIGHBORING
COMMUNITY SURVEY:**



[HTTPS://BIT.LY/4DDQMIQ](https://bit.ly/4DDQMIQ)



WE NEED YOUR



feedback

Join us for a review of the draft Genesee County Hazard Mitigation Plan (HMP) on Wednesday, July 30 at 1:00PM and 6:00PM through the provided URLs or by scanning the QR codes below.

1:00PM Meeting Option

<https://msteams.link/UIJ3>



6:00PM Meeting Option

<https://msteams.link/FEYJ>



Your Opinion Matters!

Join Genesee County for a review of the draft Hazard Mitigation Plan (HMP) on Wednesday, July 30 at 1:00PM and 6:00PM. Following the meetings, the draft HMP will be available for public review for 30 days on the County's website:

www.geneseecountynyhmp.com/draft-plan/

1:00PM Option



<https://msteams.link/XEMD>

6:00PM Option



<https://msteams.link/FEYJ>



Join through the URLs or by scanning the QR Codes above





GENESEE COUNTY

HAZARD MITIGATION PLAN UPDATE



The County needs your help!

The public review period for the draft HMP is open until August 30, 2025.

You can access the draft HMP through the County Hazard Mitigation Webpage.

Scan the QR code to submit your comments on the HMP!
or go to <https://forms.office.com/r/zCZ42ZVxAP>



The Public Review Period is Open!

Visit

<https://forms.office.com/r/zCZ42ZVxAP>

**to review the draft Hazard Mitigation
Plan now through August 30, 2025.**

**Access the survey to submit your
comments:**





“

Genesee County needs your input!
We are currently in the public review
period for the draft Hazard Mitigation
Plan. Please take a moment to visit
the County webpage and view the
draft plan. Thank you for your
participation!

”

Use the below url to view
and comment on the
HMP!

<https://forms.office.com/r/zCZ42ZVxAP>



WE NEED YOUR



feedback

www.geneseecountynyhmp.com/



The Genesee County Hazard Mitigation Plan draft is ready for review. The public commenting period is open until August 30, 2025.

Visit the County HMP webpage to view the draft plan!

Submit your feedback through online survey:

<https://forms.office.com/r/zCZ42ZVxAP>

Let Us
Know!





Your Opinion Matters!

Join Genesee County in a review of the draft Hazard Mitigation Plan. The draft HMP will be available for public review for 30 days on the County's HMP website:

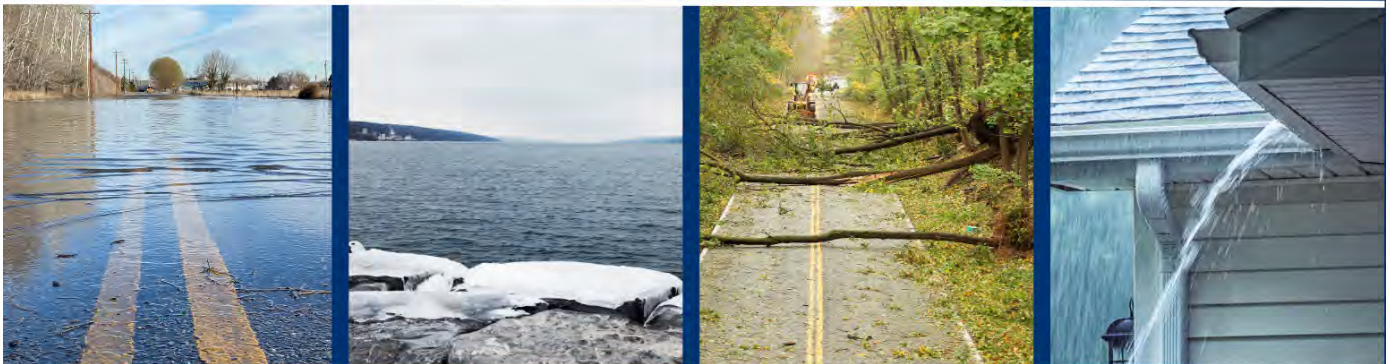
www.geneseecountynyhmp.com/draft-plan/

Use the survey through this URL or by scanning the QR Code below to provide feedback!

<https://forms.office.com/r/zCZ42ZVxAP>



GENESEE COUNTY HAZARD MITIGATION PLAN 2025 UPDATE



UPDATING THE 2019 HMP

Genesee County, along with participating jurisdictions, is in the process of updating the countywide Hazard Mitigation Plan. The objective of the plan is to identify projects that have the potential to decrease or eliminate damages caused by future natural hazards, ultimately making Genesee County a more resilient place. As a component of this planning process, we are seeking your input on which natural hazards have the most impact on you and what actions the county can take to reduce the impacts of these hazards. If you reside or work in Yates County, we kindly request that you take a few minutes to complete our mitigation survey in order to assist us in comprehending the extent to which natural hazards are affecting you and your community.

<https://www.surveymonkey.com/r/GeneseePublicSurvey>

BENEFITS OF HAZARD MITIGATION PLANS

- Awareness of risk and vulnerabilities.
- Identification of implementable strategies and funding sources.
- Reduction of natural hazard impacts (save lives, preserve property and the local economy).
- Creates partnerships and develops comprehensive approaches that enhance project grant funding opportunities.
- Pooling of resources and reducing their level of effort while avoiding duplication of effort.
- Creation of more resilient communities – bounce back from disasters faster!



WHAT IS MITIGATION?

Hazard mitigation is an action to help reduce long-term risks caused by hazards, such as flooding, hurricanes, and winter storms.



PURPOSE

The purpose of hazard mitigation is to protect people and structures and minimize the costs of disaster response and recovery.



GOALS

The goal of the Genesee County HMP is to identify projects that can reduce damages from future natural hazards.

For more information about this process, visit the project website:

[HTTPS://WWW.GENESEECOUNTYNYHMP.COM/](https://www.geneseecountynyhmp.com/)

Genesee County Hazard Mitigation Plan 2025 Update

A **Hazard Mitigation Plan (HMP)** is “the representation of the jurisdiction’s commitment to reduce risks from natural hazards, serving as a guide for decision makers as they commit resources to reducing the effects of natural hazards” (44 CFR 201.6).

The **Hazard Mitigation Plan (HMP)** aims to identify and reduce the vulnerability to natural hazards to protect the health, safety, quality of life, environment, and economy of the communities within Genesee County. HMPs must be reviewed and updated every five years and formally adopted by each participating jurisdiction. During the course of this planning project, county and local leaders and the community will work in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability.

Genesee County and its jurisdictions are **required to have a FEMA-approved HMP** to remain eligible to apply for and receive grant funding through certain pre- and post-disaster programs.

Over the next year, Genesee County and its jurisdictions will be updating the current HMP. **The objectives of this planning process are:**

- Provide the public opportunities throughout the planning process to provide input and feedback.
- Conduct a thorough risk assessment using the most recent and best available data.
- Formulate hazard mitigation goals, objectives, and actions as they relate to reducing loss of life and property from natural hazards.
- Reduce long-term impacts and damages to human health and structures, and reduced repair costs.
- Obtain state and federal approval of the HMP.
- Eligibility for federal funds for pre-disaster mitigation planning before disaster strikes.

We want to hear from you!

Scan the QR code to complete a quick survey and tell us what hazards you think impact Genesee County.



Check out the County's website to learn more about the HMP - <https://www.geneseecountynyhmp.com/>

Social Media Language Templates

Post 1:

Genesee County has updated the County Hazard Mitigation Plan (HMP) and is needing your feedback! If you live or work in Genesee County, we would appreciate your input to help us better understand the hazards that impact you and your community. Take a few minutes to complete the survey – (<https://bit.ly/3SwnTQH>).

Post 2:

In case you haven't heard, Genesee County is updating the County Hazard Mitigation Plan (HMP)-- and they want to hear from you! Your feedback will help make our county a safer place! Use this link to complete a survey about natural hazards in Genesee County (<https://bit.ly/3SwnTQH>).

Post 3:

To help reduce the risks to natural hazards and disasters, Genesee County is updating the County Hazard Mitigation Plan (HMP). We want to understand what you think are the most critical threats to your community. To help us, we are asking if you live or work in the County to complete a short survey. That information will be used to identify strategies and projects to increase our resilience as a community. To participate in the survey, follow this link – (<https://bit.ly/3SwnTQH>)

Post 4:

Genesee County needs YOUR input! The County is updating its Hazard Mitigation Plan (HMP) and would like to understand more about how Genesee County residents are prepared for disasters and emergencies. Complete the survey at (<https://bit.ly/3SwnTQH>). The more responses received will help the County better serve your community and businesses before, during, and after a disaster event.

Post 5:

Is your family prepared for a disaster event? We want to hear from you! Genesee County is updating the County Hazard Mitigation Plan (HMP) and asking those that live, or work in the county, to complete a quick survey (<https://bit.ly/3SwnTQH>). The County HMP will enable participating communities to be eligible for federal funding to rebuild stronger after disasters strikes. Your feedback will help to ensure that crucial mitigation projects can happen in your community.

Post 6:

Did you know that Genesee County can save up to \$6, for every \$1 spent on mitigating hazards? Saving lives, property, and money is why Genesee County is updating their County Hazard Mitigation Plan (HMP)! Help us understand your communities' concerns by completing a quick survey at – (<https://bit.ly/3SwnTQH>). Your responses will help to identify and prioritize actions to make Genesee County more resilient to future disasters!

Post 7:

If you live, work, or play in Genesee County and are interested in learning more about ways your community can reduce impacts to disasters, then we want to hear from YOU! Genesee County is updating their County Hazard Mitigation Plan (HMP) and are wanting your feedback. Take the survey – (<https://bit.ly/3SwnTQH>). This survey will help the County have a better understanding of community's concerns regarding natural hazards like flooding, heavy rains, drought, and extreme temperatures.

Post 8:

Genesee County is continuing the process of updating the Hazard Mitigation Plan for the County and its municipalities. Please consider attending the Public Draft Plan Review meeting virtually on Wednesday, July 30 at 1:00 PM (<https://msteams.link/XEMD>) and/or 6:00 PM (<https://msteams.link/FEYJ>), to review the structure of the draft 2025 Hazard Mitigation Plan, process of plan adoption, and address any questions or comments on the draft plan.

Following this meeting the Public Review Period will commence for 30 days. The public and stakeholders are encouraged to participate in this public review period by submitting any comments through this survey (<https://forms.office.com/r/zCZ42ZVxAP>). The draft plan will be available on the County's Hazard Mitigation Plan website (<https://www.geneseecountynyhmp.com/draft-plan/>).

Post 9:

ATTENTION!! The Genesee County Hazard Mitigation Plan 2025 Update is now ready for public review! We are asking all residents of Genesee County to review the final draft of the plan and give feedback. The projects and information included in the HMP allow your communities to remain eligible for grant funding opportunities to minimize losses from natural disasters. The Public Review Period is open until August 30, 2025 so don't miss this last chance to have your voice be heard! Your support and responses are appreciated! Use this URL for more information and to review the plan: <https://www.geneseecountynyhmp.com/draft-plan/>

Post 10:

Genesee County and its jurisdictions have been hard at work this past year to update their Hazard Mitigation Plan! The plan is now ready for public review, and we are asking residents and stakeholders to review the draft plan and provide feedback. The Public Review Period is open until August 30, 2025. Use this URL to review the plan: <https://www.geneseecountynyhmp.com/draft-plan/>

Post 11:

Did you take the Hazard Mitigation Plan survey last year? If so, then check out the draft Genesee County Hazard Mitigation Plan 2025 Update! Use this URL to see how your responses were used to create meaningful mitigation projects for your community: <https://www.geneseecountynyhmp.com/draft-plan/>

Survey Results



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Genesee County, along with its towns and villages, are in the process of updating the Hazard Mitigation Plan (HMP). The following survey is designed to help identify general needs for hazard mitigation within Genesee County pertaining to your organization or industry and identify projects that may be helping to address those needs. This survey is for stakeholders, such as fire, police, EMS, schools, churches, community organizations, etc. that are located within the County.

Hazard Mitigation is any action taken to reduce the loss of life and property by lessening the impact of disasters (natural, technological, and manmade). These include flooding, severe storms, severe winter storms, extreme temperatures, etc. and others.

The Hazard Mitigation Plan provides a "blueprint" by which local governments can make coordinated efforts towards reducing losses from natural hazards. It is required by the Federal Emergency Management Agency (FEMA) in order to be eligible for federal grant funding for public and private mitigation projects.

More information about this planning process and additional mitigation resources may be found at the Genesee County HMP website by going to https://www.co.genesee.ny.us/departments/ems/genesee_county_hazard_mitigation_plan/index.php.



Genesee County Hazard Mitigation Plan - Stakeholder Survey

General Information

The answers provided in this section will be treated as CONFIDENTIAL and will be used solely for the purpose of preparing this plan. Please note that individual answers will not be published in the plan.

1. Contact Information

Name

Department/Agency

Primary Responsibility

Phone Number

Email Address

2. Which of the following sectors and areas of expertise do you represent? Mark all that apply.

☐

Climate Change

☐

Infrastructure

☐

Emergency Management

☐

Land Use and Development

☐

Economic Development

☐

Natural and Cultural Resources

☐

Health and Social Services

☐

Social and Cultural Equity

☐

Housing, Food, Water, Shelter

☐

Socially Vulnerable and Underserved Populations

☐

Other (please specify)

3. What category does your facility operation/service fall under?

Other (please specify)

4. Based on the above category, please provide additional description and information as to what your organization does or offers (please explain)

5. Please identify the location of your facility(ies) and/ or primary service area. You may choose more than one if your service area covers multiple communities, or “*Genesee County (entire area)*” if your service area is county-wide:

- | | | |
|---|--------------------------------------|---------------------------------------|
| <input type="checkbox"/> Genesee County (entire area) | <input type="checkbox"/> Bergen (V) | <input type="checkbox"/> Le Roy (T) |
| <input type="checkbox"/> Alabama (T) | <input type="checkbox"/> Bethany (T) | <input type="checkbox"/> Oakfield (T) |
| <input type="checkbox"/> Alexander (T) | <input type="checkbox"/> Byron (T) | <input type="checkbox"/> Oakfield (V) |
| <input type="checkbox"/> Alexander (V) | <input type="checkbox"/> Corfu (V) | <input type="checkbox"/> Pavilion (T) |
| <input type="checkbox"/> Attica (V) | <input type="checkbox"/> Darien (T) | <input type="checkbox"/> Pembroke (T) |
| <input type="checkbox"/> Batavia (C) | <input type="checkbox"/> Elba (T) | <input type="checkbox"/> Stafford (T) |
| <input type="checkbox"/> Batavia (T) | <input type="checkbox"/> Elba (V) | |
| <input type="checkbox"/> Bergen (T) | <input type="checkbox"/> Le Roy (V) | |
| <input type="checkbox"/> Other (please specify) | | |

6. Does your organization maintain or manage any of the following within your designated service area? If not, answer “No”, otherwise check all that apply.

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> Buildings | <input type="checkbox"/> Water/Sewer |
| <input type="checkbox"/> Roads | <input type="checkbox"/> Stormwater |
| <input type="checkbox"/> Bridges | <input type="checkbox"/> No |
| <input type="checkbox"/> Other (please specify) | |

7. Does your organization work with or help support socially vulnerable populations that may be at higher risk for hazard impacts? Socially vulnerable populations may be considered "socially vulnerable" because of a variety of factors like socioeconomic status, household composition, minority status, limited proficiency to read or speak English, housing type, and transportation.

- ☐ Yes
- ☐ No

If you answered yes, please describe how your organization works with or supports socially vulnerable populations.



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Risk Overview

A risk assessment is conducted as part of the HMP update. This is done to determine the potential impacts of hazards to the population, economy, built environment, and natural environment. To help us understand the hazards of greatest concern in Genesee County, please answer the questions below.

8. For which hazard(s) do you feel that you or your organization have a special interest and/or expertise? Check all that apply.

- | | |
|--|--|
| <input type="checkbox"/> Dam Failure | <input type="checkbox"/> Ice Jam |
| <input type="checkbox"/> Disease/Pandemic Outbreak | <input type="checkbox"/> Landslide |
| <input type="checkbox"/> Drought | <input type="checkbox"/> Lightning |
| <input type="checkbox"/> Earthquake | <input type="checkbox"/> Nor'easter |
| <input type="checkbox"/> Extreme Temperature (heat/cold) | <input type="checkbox"/> Severe Storms |
| <input type="checkbox"/> Extreme Wind | <input type="checkbox"/> Storm Surge |
| <input type="checkbox"/> Flood (inland, flash, urban/stormwater) | <input type="checkbox"/> Tornado |
| <input type="checkbox"/> Hazardous Materials | <input type="checkbox"/> Wildfire |
| <input type="checkbox"/> Hurricane and Tropical Storm | <input type="checkbox"/> Winter Storm |
| <input type="checkbox"/> Other (please specify) | |

9. Looking back at previous hazard events, have buildings/facilities/structures you have worked in and/ or are responsible for been impacted by a hazard (ex. damage/closures/etc.)?

- ☐ Yes
- ☐ No
- ☐ Don't Know

10. If you answered "Yes" to the above question, please describe the event that caused or is causing (if recurring) damage and loss of service/ property. If quantifiable data is available, please provide that as well (number of damaged structures, monetary loss, etc.) (please explain)

11. Looking at where your facilities or services are located in Genesee County, what areas do you believe to be the most vulnerable to hazards? What are these hazards? (please explain).

12. What are your agency's primary concerns regarding hazards?

- ☐ Vulnerability of specific facilities
- ☐ Response capabilities
- ☐ Likelihood of specific hazard events
- ☐ Other (please specify)

13. What challenges or barriers to reducing vulnerability in Genesee County do you see?



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Facility Information

Critical facilities/infrastructure and community lifelines are part of the risk assessment of the HMP update. Facilities and infrastructure that the population relies upon for health and welfare, and that are especially important following hazard events, are considered critical. Critical facilities often include but are not limited to: shelters, police and fire stations, hospitals, schools, etc.

14. Does your agency own or lease facilities?

☐ Yes

☐ No

☐ Don't Know

☐ Other (please specify)

15. Of those facilities that your agency owns or leases, are any viewed as critical facilities or community lifelines?

16. Are your facilities susceptible to impacts from hazards, such as your fire department being in a flood prone area?

☐ Yes

☐ No

☐ Don't Know

If yes, please specify the facilities and damages sustained.

17. What support does your organization need from Genesee County to help reduce vulnerabilities to your facilities?



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Capabilities and Mitigation Strategies

Counties, communities, agencies, and stakeholders all have different sets of capabilities, including authorities, policies, programs, staff, funding, and other resources available to accomplish mitigation. To help us understand your agency's capabilities, please answer the following questions.

18. Is your organization covered by any of the following plans? Check all that apply

- | | |
|--|---|
| <input type="checkbox"/> Continuity of Operations Plan | <input type="checkbox"/> Business Continuity Plan |
| <input type="checkbox"/> Continuity of Government Plan | <input type="checkbox"/> None |
| <input type="checkbox"/> Emergency Operations Plan | <input type="checkbox"/> Don't Know |
| <input type="checkbox"/> Other (please specify) | |

19. What capabilities does your agency have to help address hazards?

20. What plans or studies has your agency developed that relate to hazards, the climate, new or existing facilities, vulnerable populations, or other areas related to hazard mitigation?

21. Is your agency currently involved in conducting any studies or developing any programs which would further support Genesee County's hazard mitigation program? Studies can include hazard-specific information, data gathering which supports risk assessments, including economic data, or statistical data of other types.

- ☐ Yes
- ☐ No
- ☐ Don't Know

If yes, please briefly describe the type of study underway, and list the anticipated year of completion.



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Project Identification

22. Please list any projects or programs that you have recently implemented that you believe will reduce your facility's/organization's vulnerability, damage, and losses (including loss of operation/service) due to hazard events.

23. Does your agency currently have any mitigation projects or activities underway? If so, please describe.

24. Please provide a list of projects or programs that your facility or organization would like to complete in order to reduce your vulnerability to damages and losses, including loss of operation/service, to hazard events.



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Social Vulnerability and Underserved Communities

Social vulnerability is understood as the potential for loss within an individual or social group, recognizing that some characteristics influence an individual's or group's ability to prepare, respond, cope or recover from an event. These characteristics can overlap within populations to create heightened vulnerability, which may be compounded by infrastructure deficiencies within communities and historic or existing discriminatory government policies.

Underserved Communities refer to populations sharing a particular characteristic, as well as geographic communities that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. The barriers to opportunity and participation these communities face have been occurring throughout history and continue today.

25. Are you aware of the number and location of vulnerable populations in your community/operating area?

- ☐ Yes
- ☐ No
- ☐ Yes, but need better information
- ☐ Other (please specify)

26. Does your agency provide assistance to any socially vulnerable or underserved populations in Genesee County?

- ☐ Yes
- ☐ No
- ☐ Not Sure

Other (please specify)

27. If yes, what types of services do you provide?

☐ Establishing Personal Services

☐ Personal Services

☐ Funding/Financial

☐ Regulatory Oversight

☐ Human Rights

☐ Other (please specify)

28. Please provide a list of the populations or communities served by your agency.

29. Do you provide these services during times of disaster?

☐ Yes

☐ No

☐ Don't Know

☐ Other (please specify)

30. What barriers and community characteristics exist within Genesee County that may create additional vulnerabilities to hazards? This may include but is not limited to access to transportation, broadband access, economic disadvantages, physical health (chronic diseases), limited physical mobility, age (older adults and children), and rural communities.



Genesee County Hazard Mitigation Plan - Stakeholder Survey

Final Thoughts

31. Do you have any questions or comments for Genesee County?

Q1 Contact Information

Answered: 2 Skipped: 0

ANSWER CHOICES	RESPONSES	
Name	100.00%	2
Department/Agency	100.00%	2
Address	0.00%	0
Address 2	0.00%	0
County/City/Town/Village	100.00%	2
State/Province	0.00%	0
ZIP/Postal Code	0.00%	0
Country	0.00%	0
Email Address	100.00%	2
Phone Number	100.00%	2

#	NAME	DATE
1	Justin Niederhofer	4/8/2024 5:10 PM

2	Brian Meyers	3/25/2024 11:54 AM
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#	DEPARTMENT/AGENCY	DATE
1	Orleans County Emergency Mangement	4/8/2024 5:10 PM

2	Wyoming County Emergency Services	3/25/2024 11:54 AM
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#	ADDRESS	DATE
	There are no responses.	

#	ADDRESS 2	DATE
	There are no responses.	

#	COUNTY/CITY/TOWN/VILLAGE	DATE
1	Albion	4/8/2024 5:10 PM

2	Warsaw	3/25/2024 11:54 AM
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#	STATE/PROVINCE	DATE
	There are no responses.	

#	ZIP/POSTAL CODE	DATE
	There are no responses.	

#	COUNTRY	DATE
	There are no responses.	

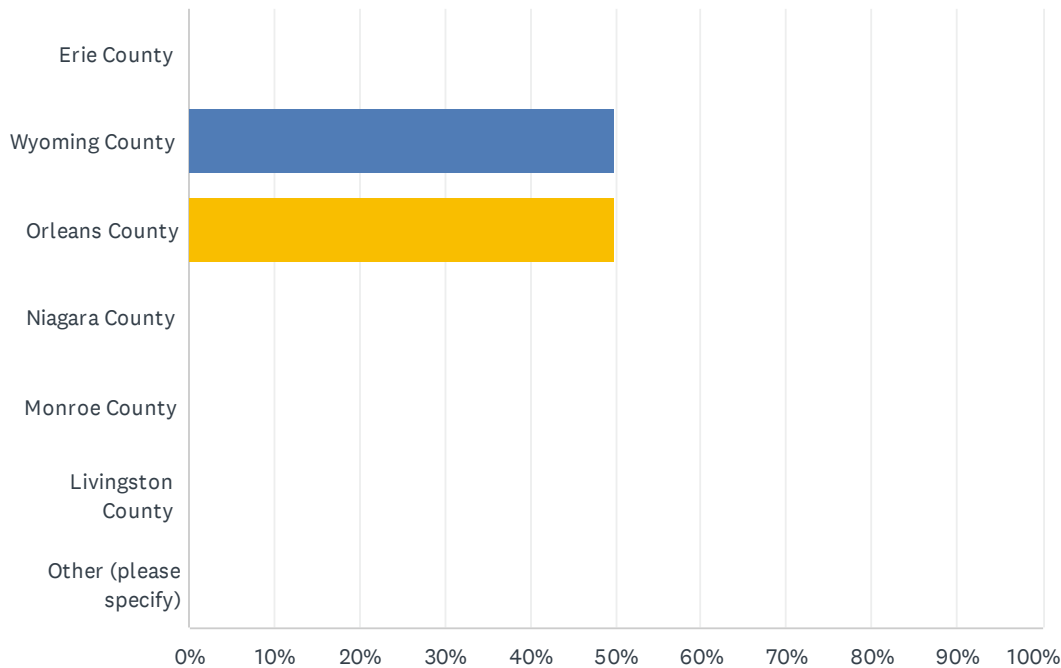
#	EMAIL ADDRESS	DATE
1	justin.niederhofer@orleanscountyny.gov	4/8/2024 5:10 PM

2	bmeyers@wyomingco.net	3/25/2024 11:54 AM
---	-----------------------	--------------------

#	PHONE NUMBER	DATE
1	5855120045	4/8/2024 5:10 PM
2	5857868867	3/25/2024 11:54 AM

Q2 Please indicate which neighboring county your jurisdiction is in.

Answered: 2 Skipped: 0

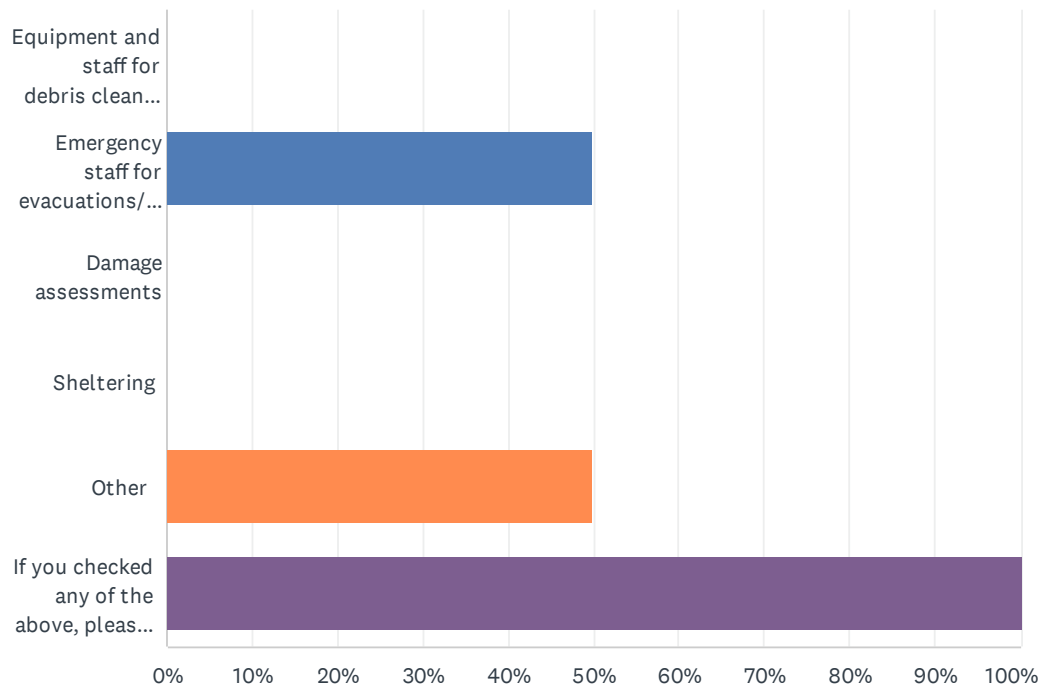


ANSWER CHOICES	RESPONSES
Erie County	0.00% 0
Wyoming County	50.00% 1
Orleans County	50.00% 1
Niagara County	0.00% 0
Monroe County	0.00% 0
Livingston County	0.00% 0
Other (please specify)	0.00% 0
TOTAL	2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q3 Do you have any shared service agreements or mutual aid agreements in place with Genesee County or any Genesee County municipalities for the following?

Answered: 2 Skipped: 0

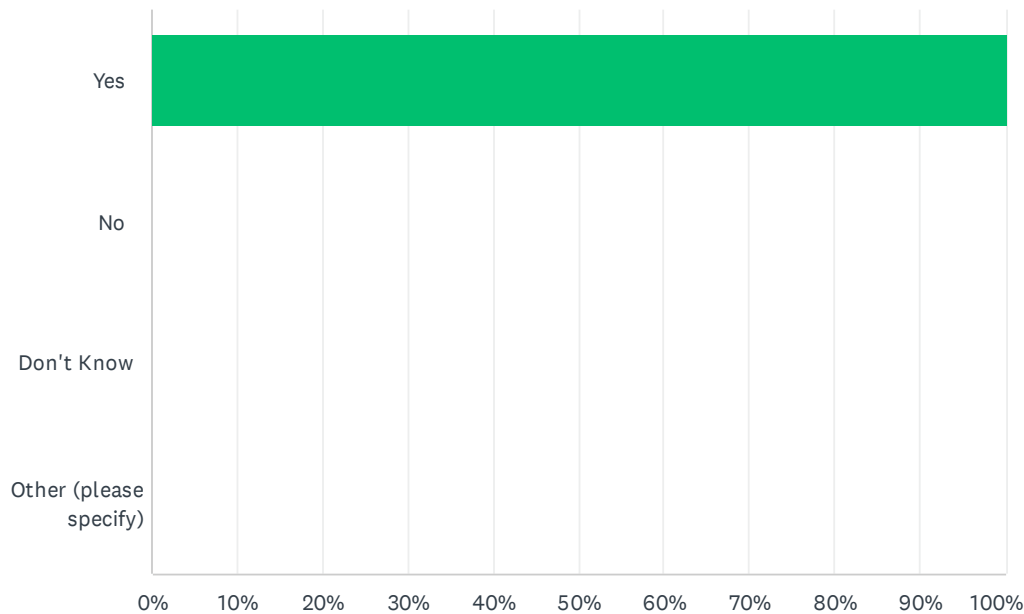


ANSWER CHOICES	RESPONSES	
Equipment and staff for debris cleanup and removal	0.00%	0
Emergency staff for evacuations/disaster response	50.00%	1
Damage assessments	0.00%	0
Sheltering	0.00%	0
Other	50.00%	1
If you checked any of the above, please explain.	100.00%	2
Total Respondents: 2		

#	IF YOU CHECKED ANY OF THE ABOVE, PLEASE EXPLAIN.	DATE
1	Part of HazMat Consortium, and working on developing COAD	4/8/2024 5:12 PM
2	Animal sheltering	3/25/2024 11:56 AM

Q4 Do you include Genesee County or any Genesee County municipalities in your community's comprehensive emergency operations planning, such as by participating on a planning team, or providing resources during an emergency?

Answered: 2 Skipped: 0

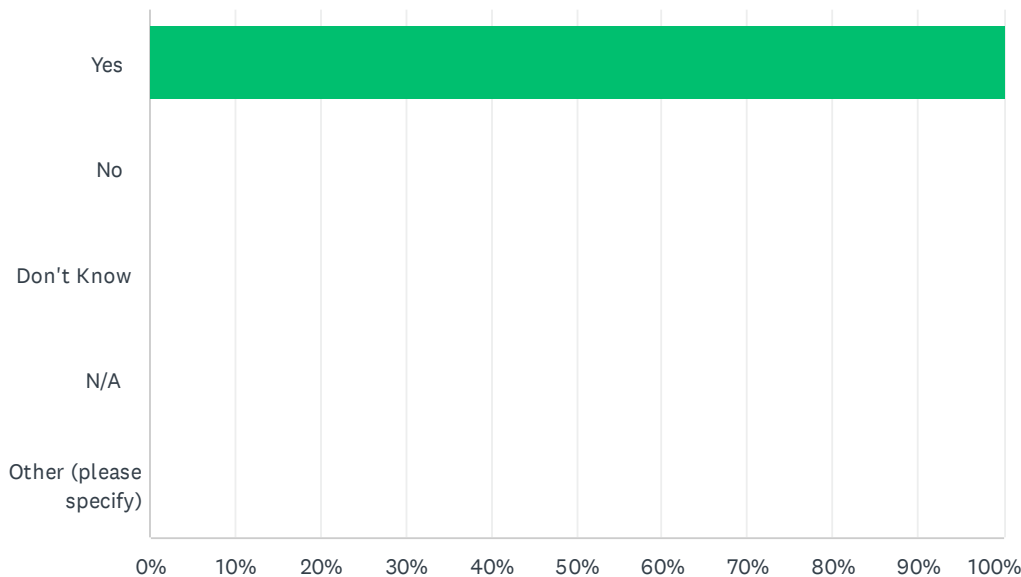


ANSWER CHOICES	RESPONSES	
Yes	100.00%	2
No	0.00%	0
Don't Know	0.00%	0
Other (please specify)	0.00%	0
TOTAL		2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q5 Does your community participate in Genesee County or any Genesee County municipality's comprehensive emergency operations planning, such as by participating on a planning team, or providing resources during an emergency?

Answered: 2 Skipped: 0

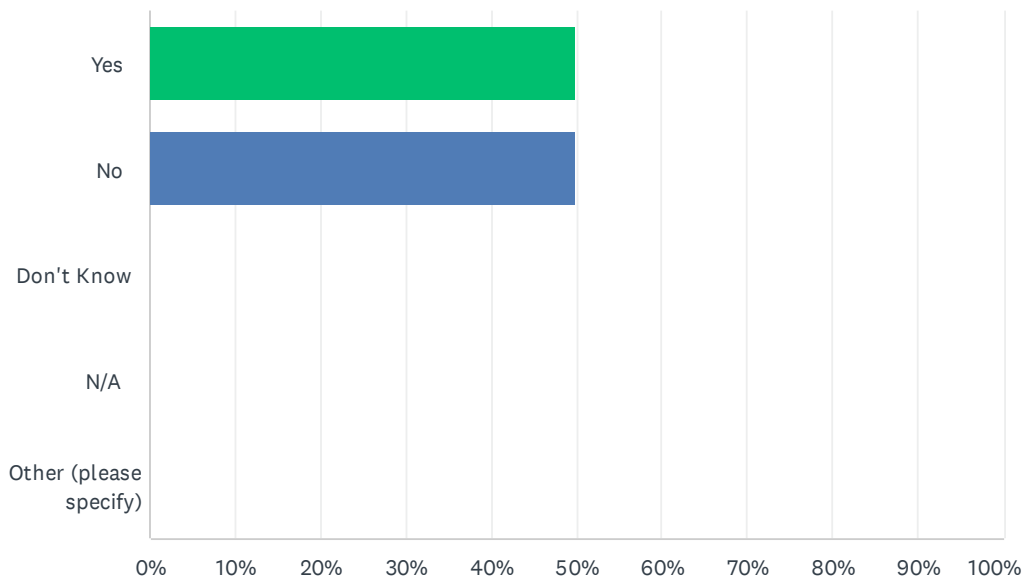


ANSWER CHOICES	RESPONSES	
Yes	100.00%	2
No	0.00%	0
Don't Know	0.00%	0
N/A	0.00%	0
Other (please specify)	0.00%	0
TOTAL		2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q6 Do you include Genesee County or any Genesee County municipalities in your community's Continuity of Operations planning, such as by participating on a planning team, providing resources during an emergency, or carrying out some of your community's essential functions for a period of time?

Answered: 2 Skipped: 0

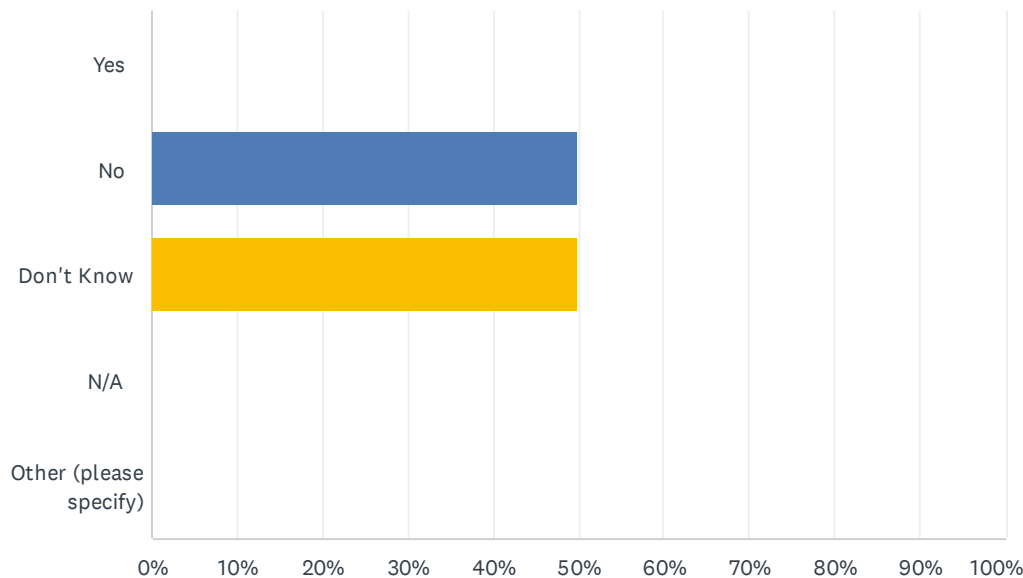


ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
Don't Know	0.00%	0
N/A	0.00%	0
Other (please specify)	0.00%	0
TOTAL		2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q7 Does your community participate in Genesee County or any Genesee County municipality's Continuity of Operations planning, such as by participating on a planning team, providing resources during an emergency, or carrying out some of Genesee County's essential functions for a period of time?

Answered: 2 Skipped: 0



ANSWER CHOICES	RESPONSES
Yes	0.00% 0
No	50.00% 1
Don't Know	50.00% 1
N/A	0.00% 0
Other (please specify)	0.00% 0
TOTAL	2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

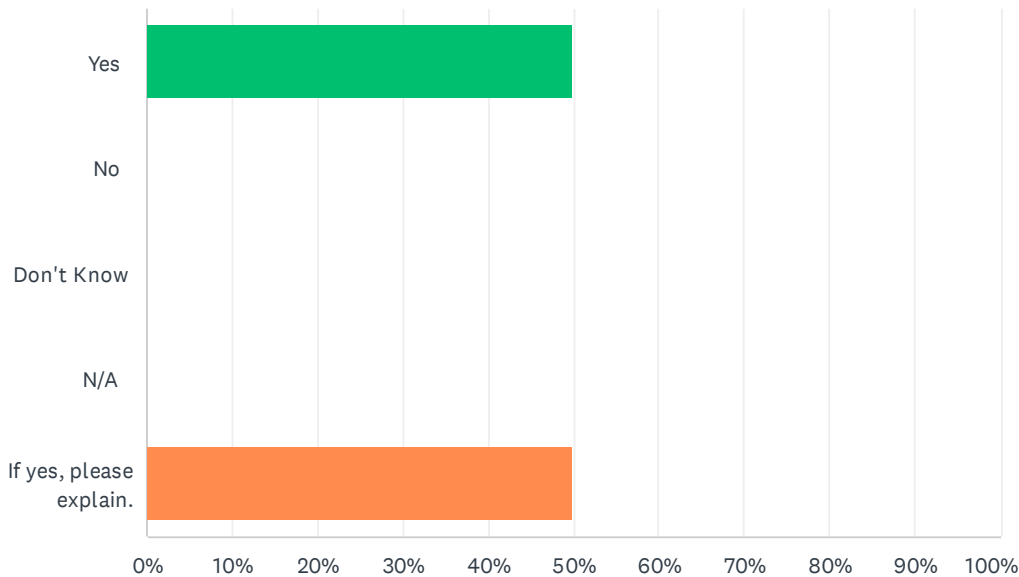
Q8 Thinking about emergency operations and disaster response, please explain how these actions are communicated between your staff and Genesee County.

Answered: 2 Skipped: 0

#	RESPONSES	DATE
1	Routine meetings, exercises and conversations with OEM staff	4/8/2024 5:12 PM
2	Planning coordination at meetings, email/text/phone during events to coordinate activities/events, impacts, needs, etc.,	3/25/2024 11:56 AM

Q9 Do your emergency officials have access to contact information for emergency operations centers within Genesee County?

Answered: 2 Skipped: 0

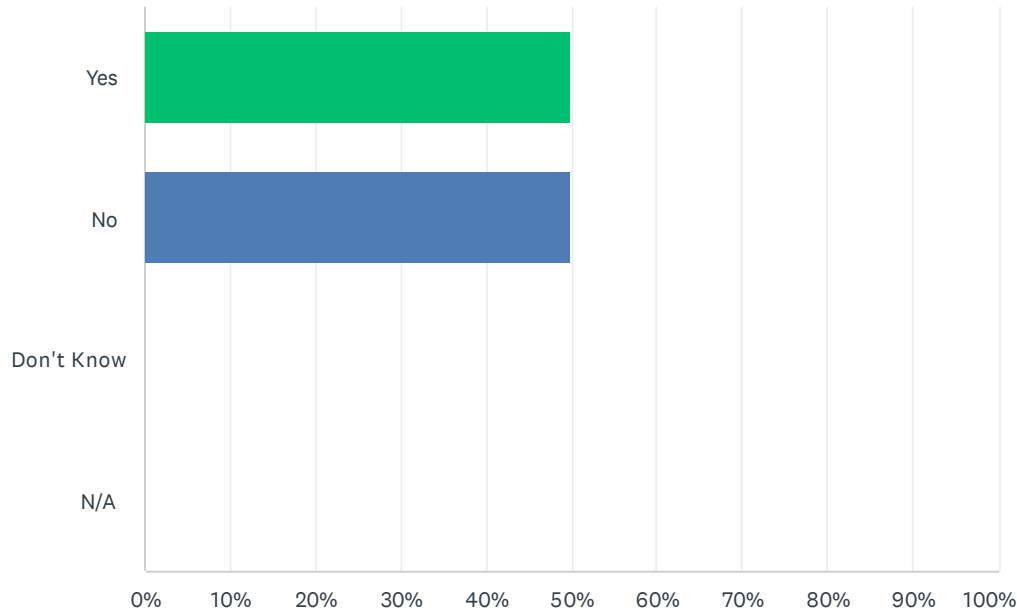


ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	0.00%	0
Don't Know	0.00%	0
N/A	0.00%	0
If yes, please explain.	50.00%	1
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
1	WE communicate regularly via email and phone	4/8/2024 5:14 PM

Q10 Does your community share risk and vulnerability assessments (e.g., flood mapping, GIS, Hazus, etc.) with Genesee County?

Answered: 2 Skipped: 0

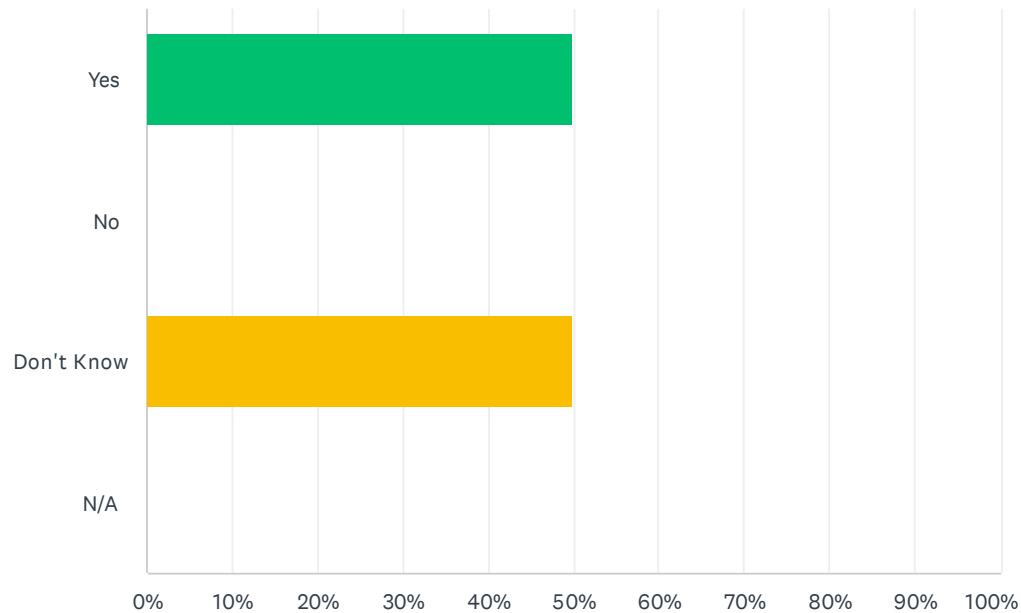


ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
Don't Know	0.00%	0
N/A	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
1	most are available electronically for	4/8/2024 5:14 PM

Q11 Is information regarding mitigation shared during the planning and implementation phases of the projects?

Answered: 2 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	0.00%	0
Don't Know	50.00%	1
N/A	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

Q12 Please describe any situations or hazards that are of concern to both your jurisdiction and Genesee County. For example, would flooding along a particular waterway impact both jurisdictions, or are there any facilities or infrastructure that would affect both jurisdictions if it/they failed?

Answered: 2 Skipped: 0

#	RESPONSES	DATE
1	Flooding in swamps, damage to radio system infrastructure	4/8/2024 5:14 PM
2	Tonawanda Creek flooding, Flooding Village of Attica, Water treatment plant Village of Attica	3/25/2024 11:57 AM

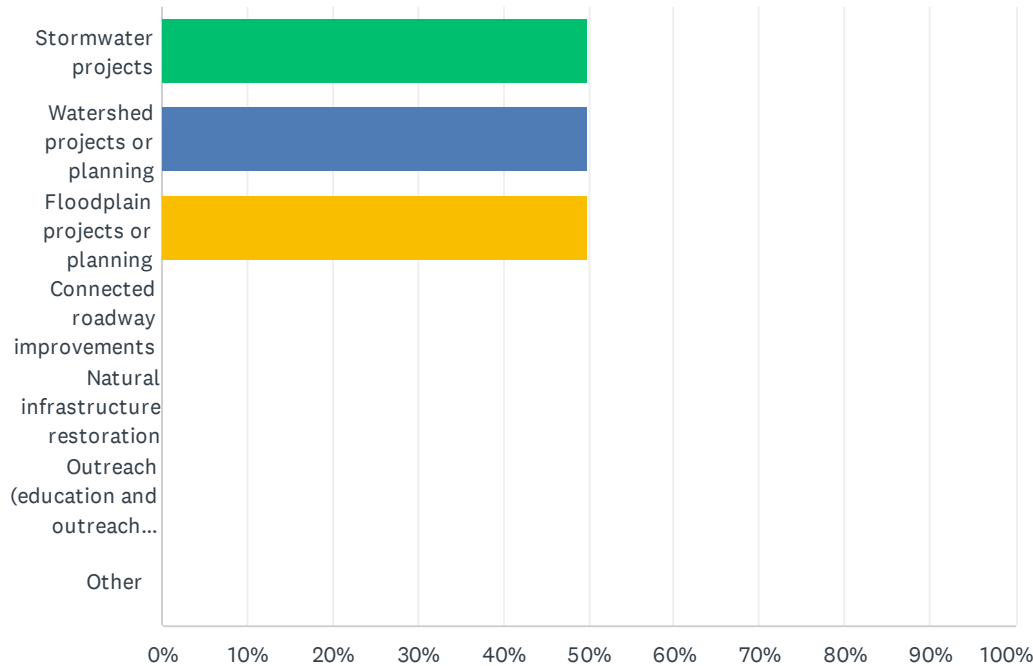
Q13 Please explain how information is shared between your jurisdiction and Genesee County and any Genesee County municipalities regarding mitigation projects.

Answered: 2 Skipped: 0

#	RESPONSES	DATE
1	email, meetings	4/8/2024 5:14 PM
2	Flood project planning meetings	3/25/2024 11:57 AM

Q14 Are you aware of any projects for the following that requires cross-collaboration between jurisdictional boundaries?

Answered: 2 Skipped: 0

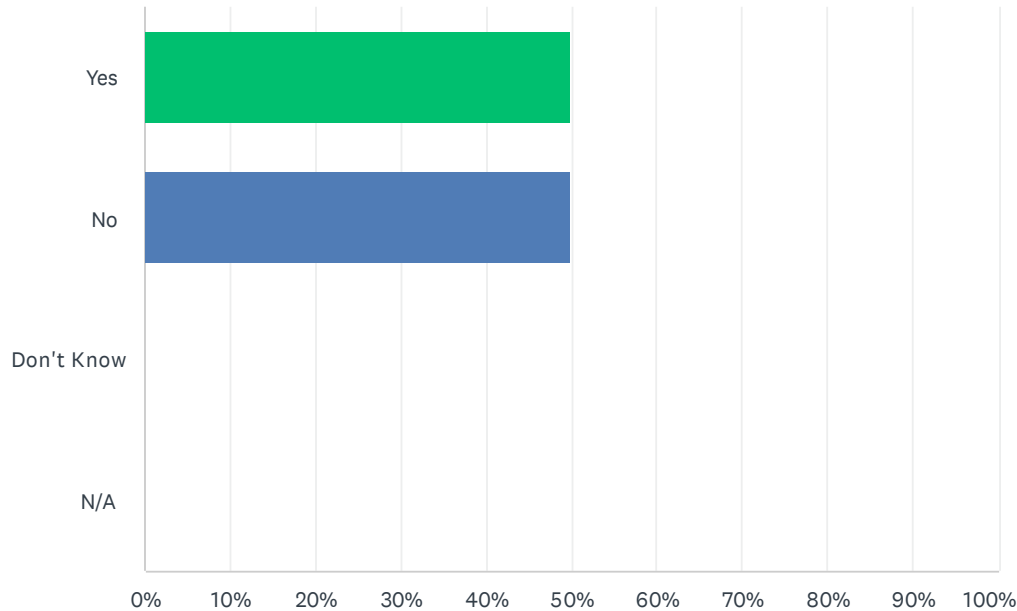


ANSWER CHOICES	RESPONSES	
Stormwater projects	50.00%	1
Watershed projects or planning	50.00%	1
Floodplain projects or planning	50.00%	1
Connected roadway improvements	0.00%	0
Natural infrastructure restoration	0.00%	0
Outreach (education and outreach campaigns, programs for public information, etc.)	0.00%	0
Other	0.00%	0
Total Respondents: 2		

#	IF YOU SELECTED ANYTHING ABOVE, PLEASE EXPLAIN.	DATE
1	Stamp	4/8/2024 5:15 PM
2	Tonawanda Creek flood project, flood maps	3/25/2024 11:58 AM

Q15 Has your jurisdiction and Genesee County or any Genesee County municipalities collaborated on grant applications?

Answered: 2 Skipped: 0

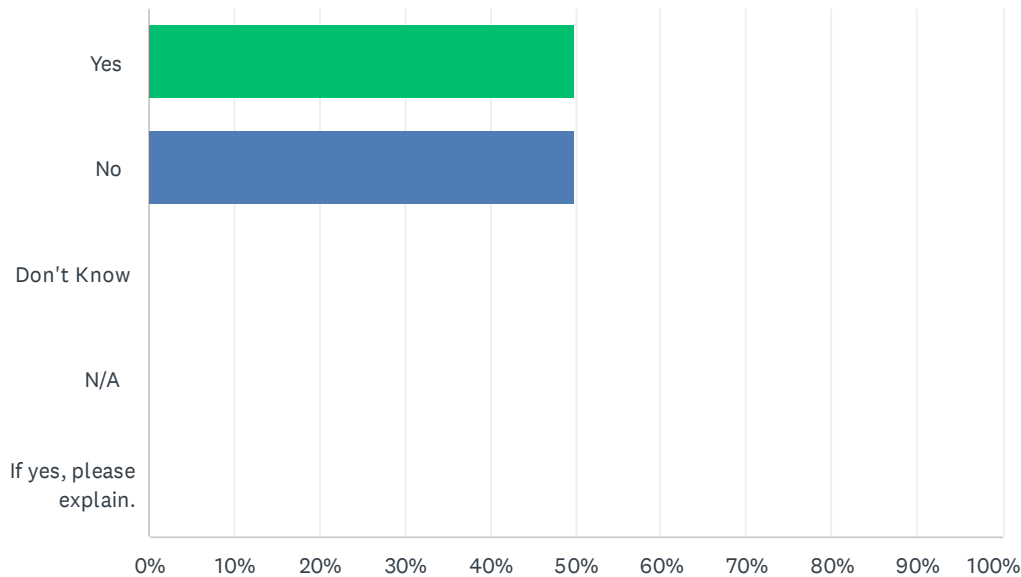


ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
Don't Know	0.00%	0
N/A	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
1	Hazmat and Interop Communications	4/8/2024 5:15 PM

Q16 Are you aware of any organizations that carry out education and outreach regarding hazards in both your community and Genesee County?

Answered: 2 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	50.00%	1
Don't Know	0.00%	0
N/A	0.00%	0
If yes, please explain.	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

Q17 Are you aware of any organizations that support socially vulnerable or underserved populations in both your community and Genesee County?

Answered: 1 Skipped: 1

#	RESPONSES	DATE
1	Yes	4/8/2024 5:15 PM

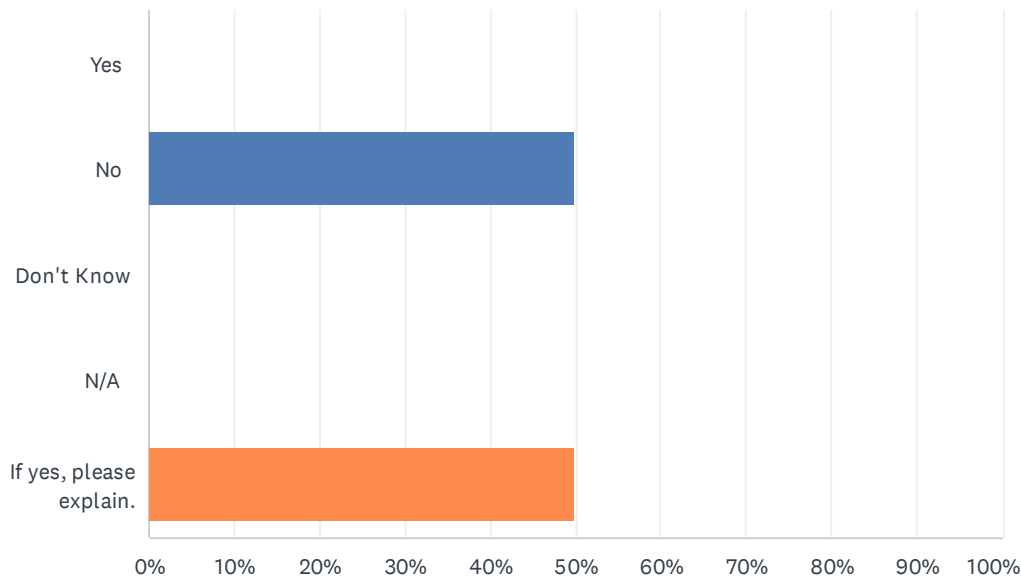
Q18 What are opportunities or ideas to optimize cooperation with Genesee County on emergency management operations and hazard mitigation projects?

Answered: 2 Skipped: 0

#	RESPONSES	DATE
1	Regular communications between emergency management officials in the region.	4/8/2024 5:15 PM
2	Need staff who can focus on hazard mitigation	3/25/2024 11:58 AM

Q19 Do you collaborate with Genesee County or any Genesee County municipalities on establishing evacuation routes and alternate evacuation routes?

Answered: 2 Skipped: 0

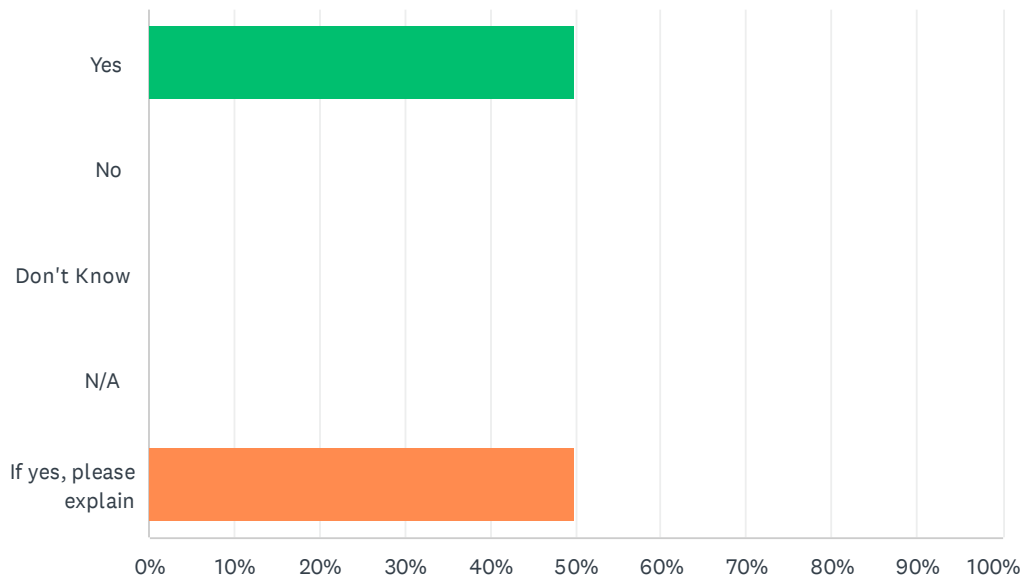


ANSWER CHOICES	RESPONSES
Yes	0.00% 0
No	50.00% 1
Don't Know	0.00% 0
N/A	0.00% 0
If yes, please explain.	50.00% 1
TOTAL	2

#	IF YES, PLEASE EXPLAIN.	DATE
1	If needed, yes, most are done by NYS	4/8/2024 5:17 PM

Q20 Do you and Genesee County or any Genesee County municipalities consult with one another before making evacuation decisions that would impact one another (recommending evacuation routes into neighboring jurisdictions)?

Answered: 2 Skipped: 0

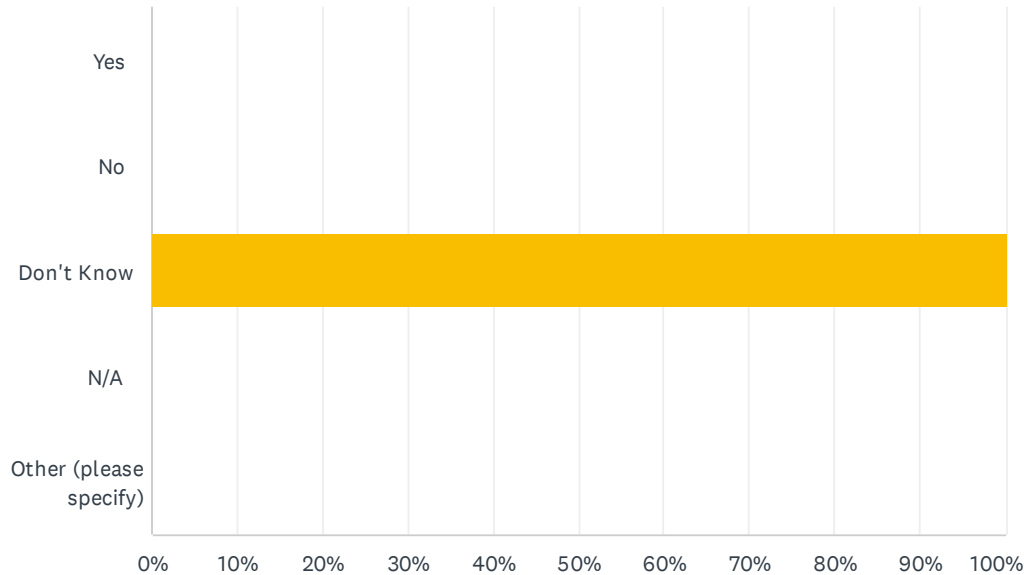


ANSWER CHOICES	RESPONSES	
Yes	50.00%	1
No	0.00%	0
Don't Know	0.00%	0
N/A	0.00%	0
If yes, please explain	50.00%	1
TOTAL		2

#	IF YES, PLEASE EXPLAIN	DATE
1	If the situation arises we would	4/8/2024 5:17 PM

Q21 Are evacuation routes maintained to the same level of protection across jurisdictional lines?

Answered: 2 Skipped: 0

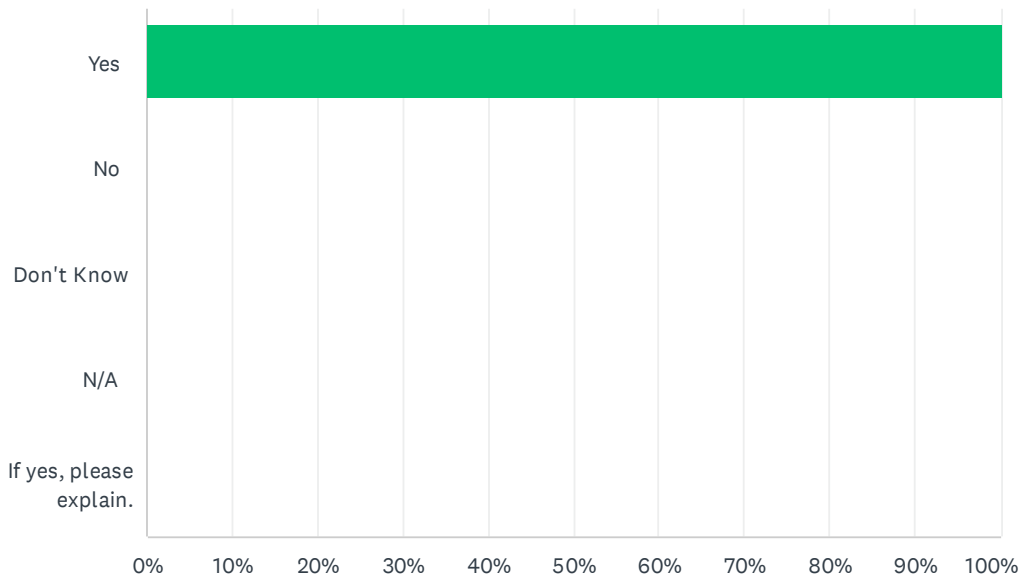


ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	0.00%	0
Don't Know	100.00%	2
N/A	0.00%	0
Other (please specify)	0.00%	0
TOTAL		2

#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q22 Do you collaborate with Genesee County or any Genesee County municipalities on establishing shelters?

Answered: 2 Skipped: 0

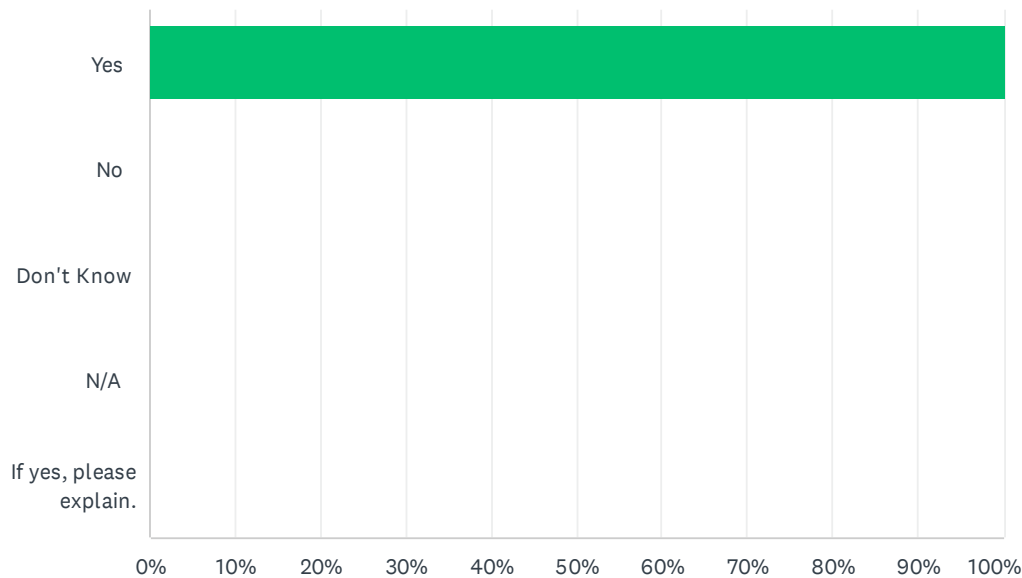


ANSWER CHOICES	RESPONSES	
Yes	100.00%	2
No	0.00%	0
Don't Know	0.00%	0
N/A	0.00%	0
If yes, please explain.	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

Q23 Do you and Genesee County or any Genesee County municipalities consult with one another before making sheltering decisions that would impact one another (recommending shelters in neighboring communities)?

Answered: 2 Skipped: 0

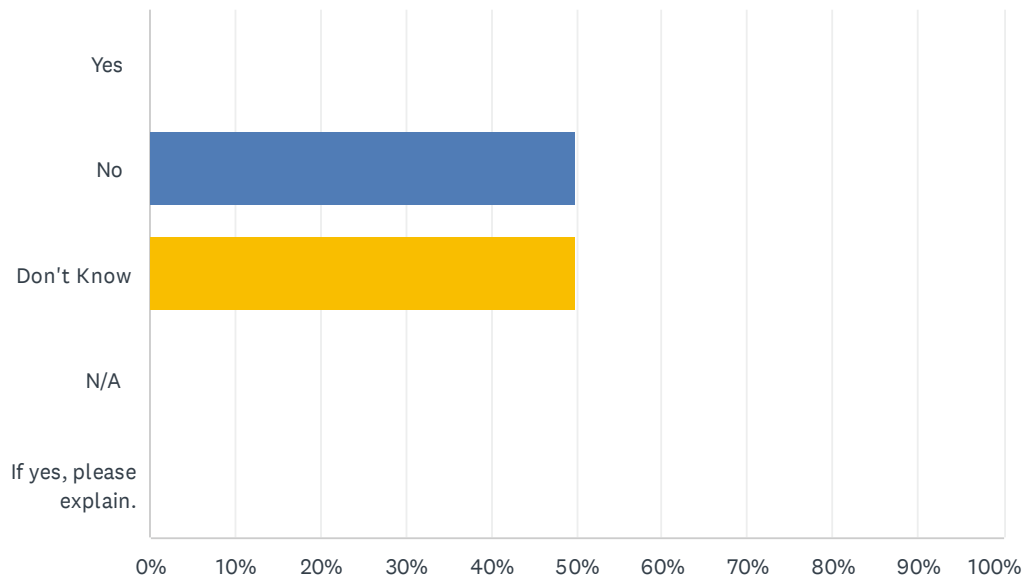


ANSWER CHOICES	RESPONSES	
Yes	100.00%	2
No	0.00%	0
Don't Know	0.00%	0
N/A	0.00%	0
If yes, please explain.	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

Q24 Do you and Genesee County share any spaces suitable for temporary housing? This includes locations suitable to place temporary housing units to house residents displaced by a disaster.

Answered: 2 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	50.00%	1
Don't Know	50.00%	1
N/A	0.00%	0
If yes, please explain.	0.00%	0
TOTAL		2

#	IF YES, PLEASE EXPLAIN.	DATE
	There are no responses.	

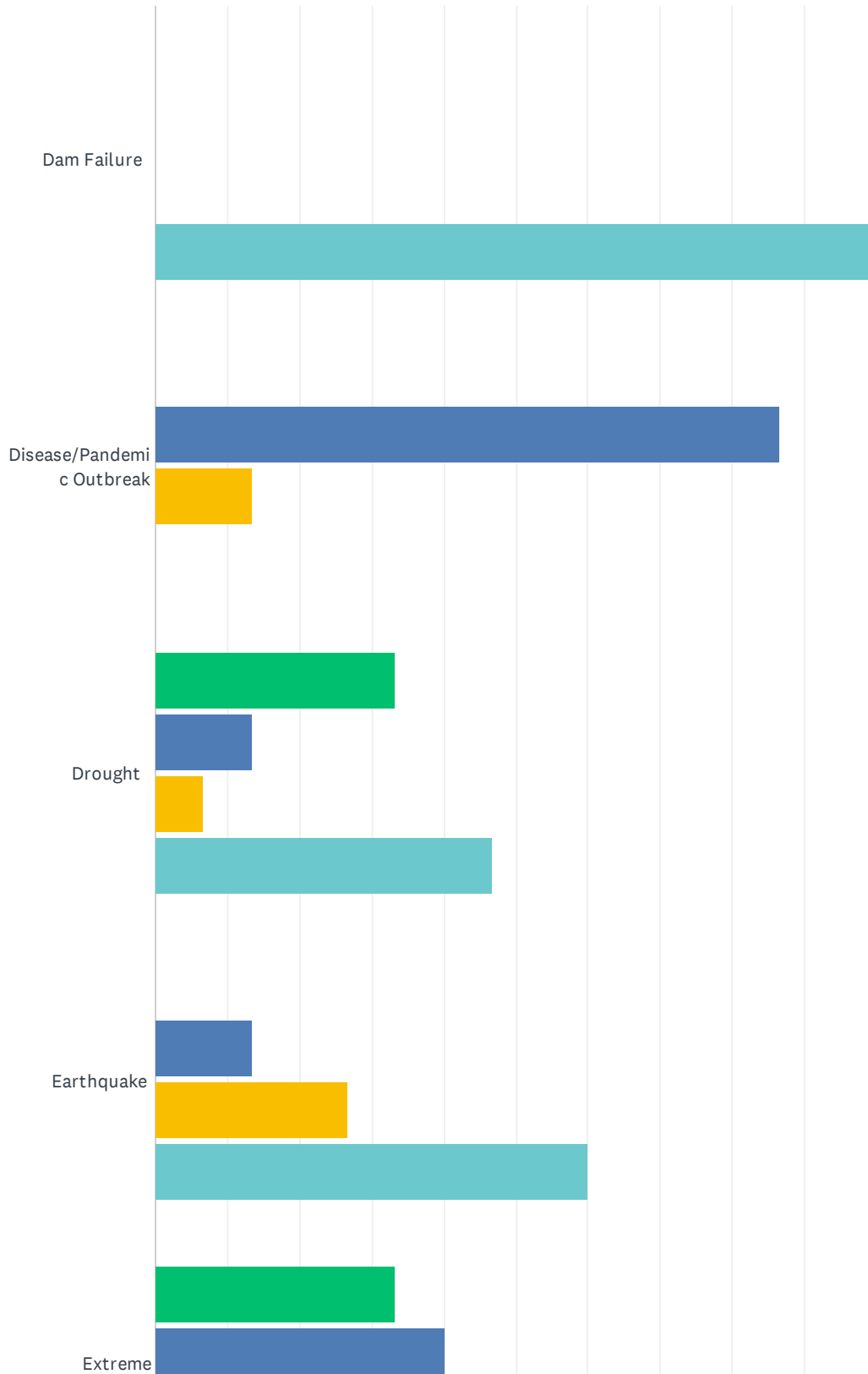
Q25 Do you have any relevant questions or comments for Genesee County?

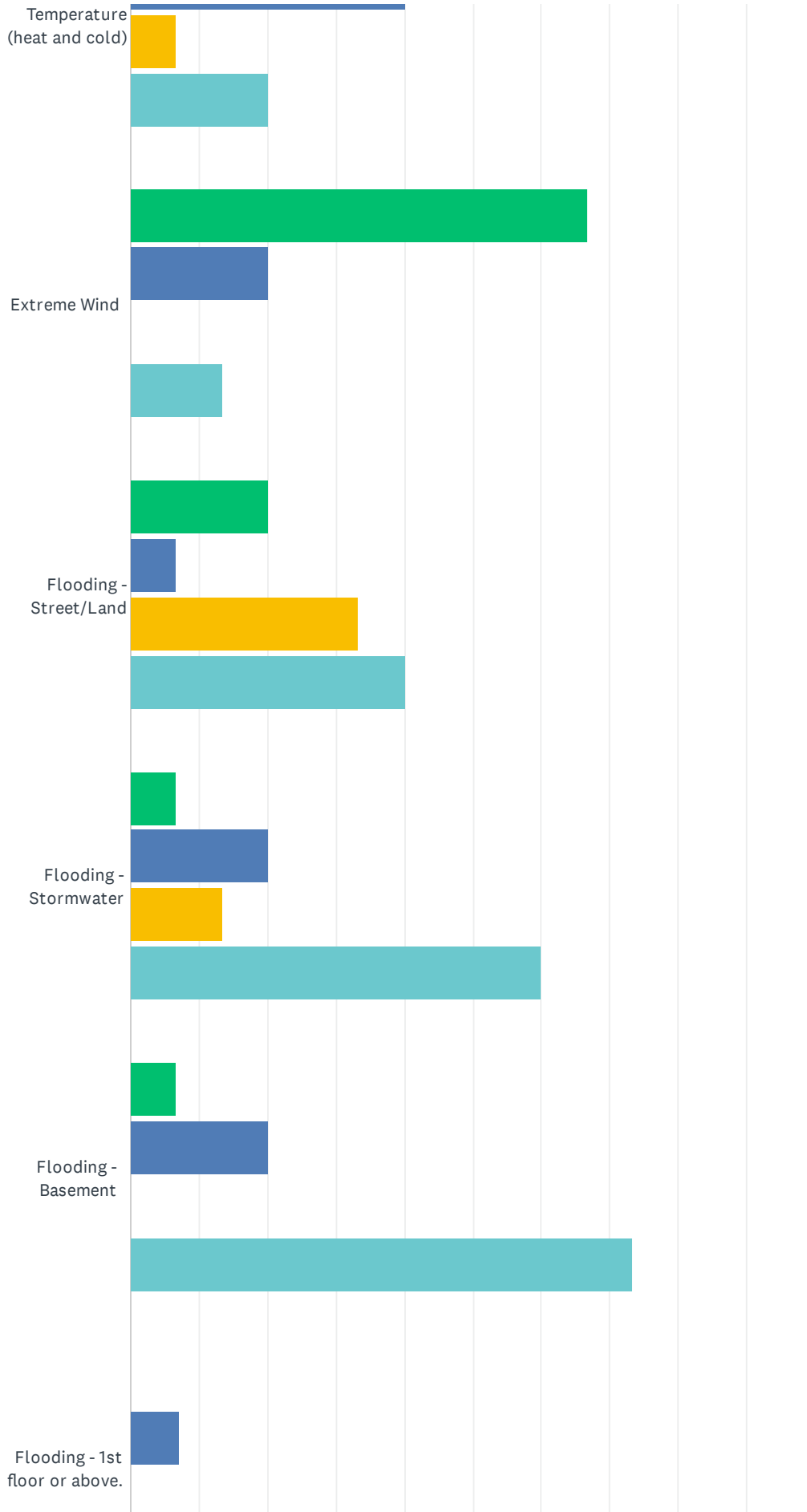
Answered: 0 Skipped: 2

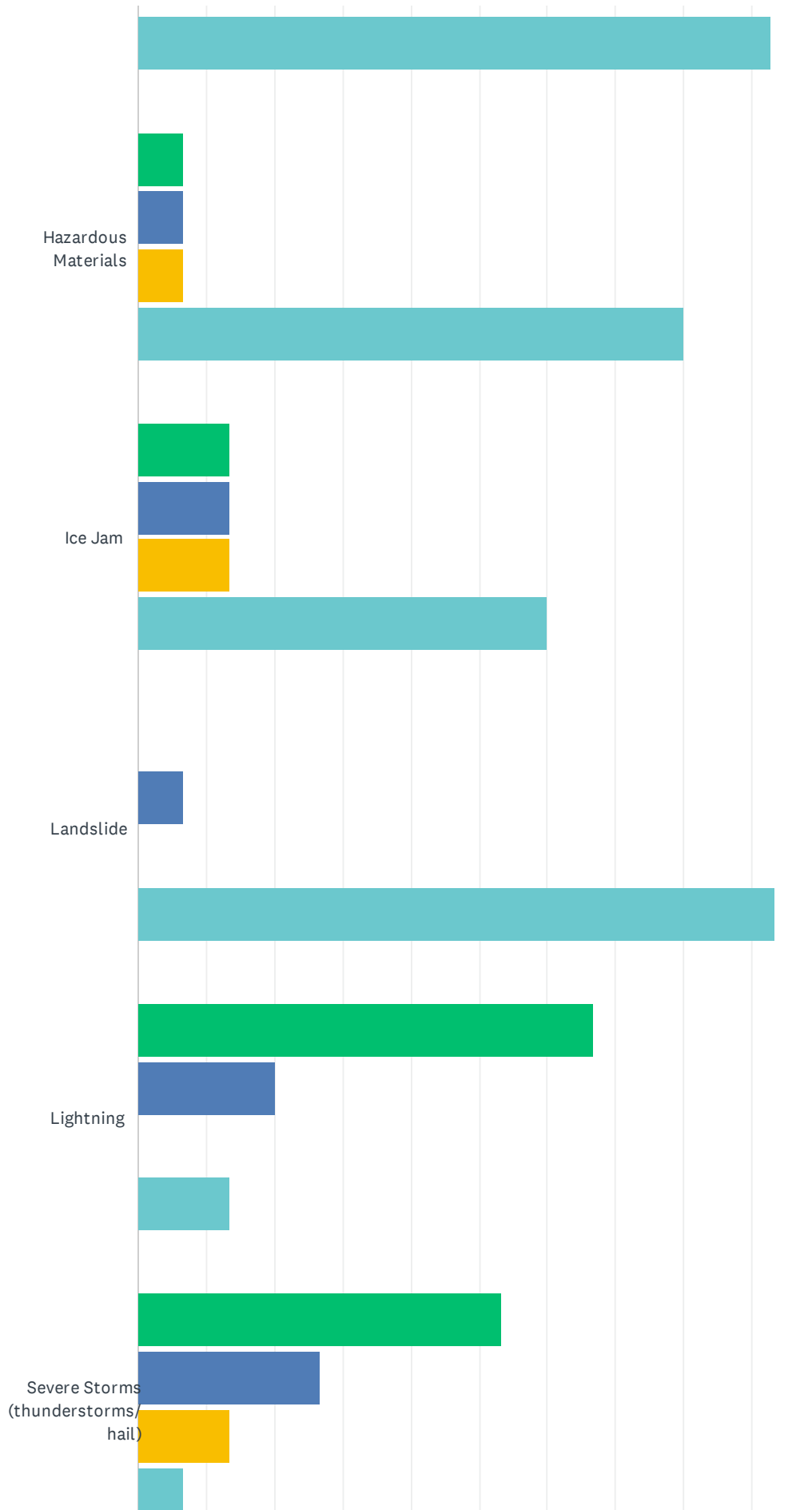
#	RESPONSES	DATE
	There are no responses.	

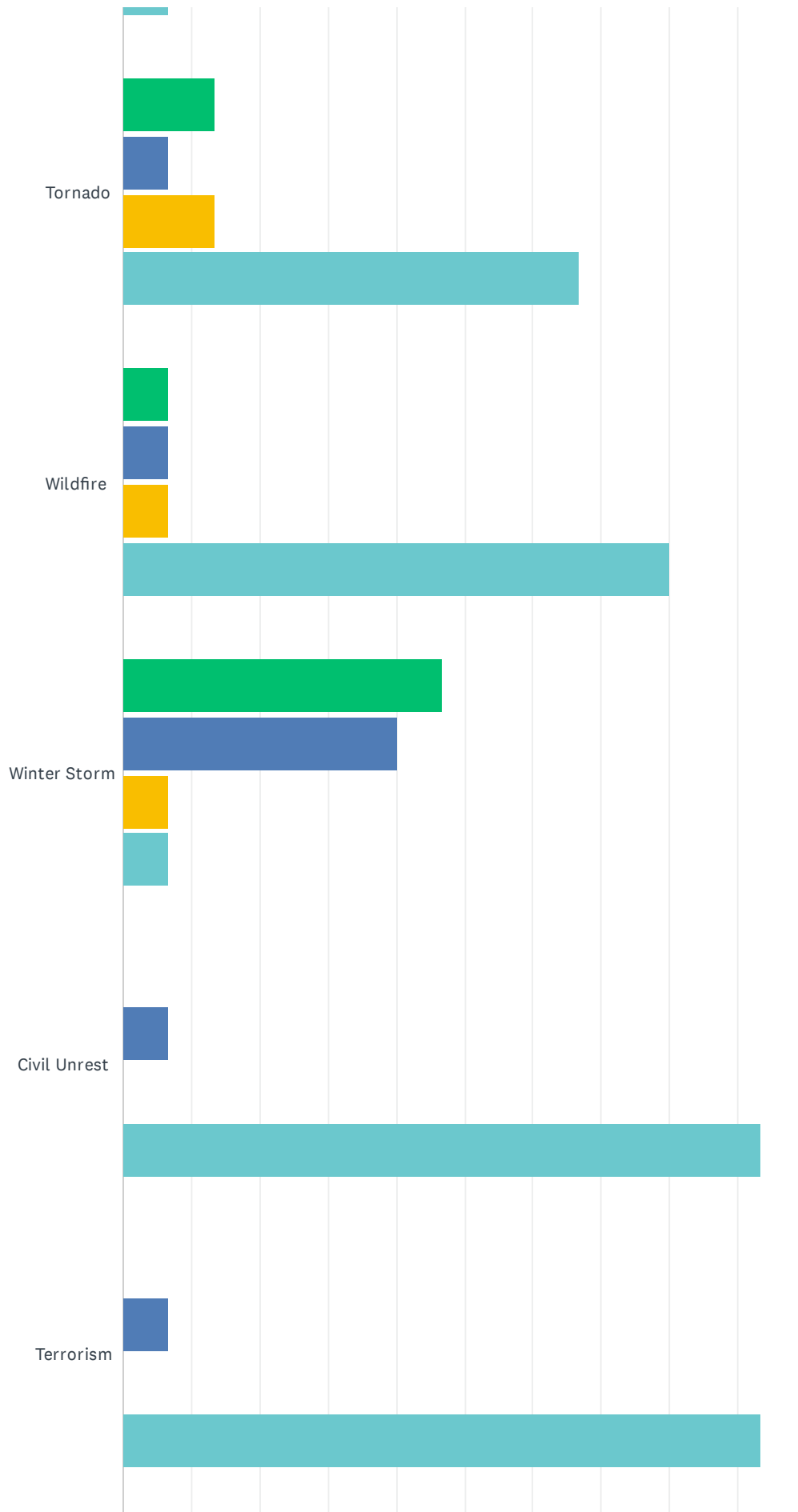
Q1 Which of the following hazard events have you experienced in Genesee County? Check all that apply.

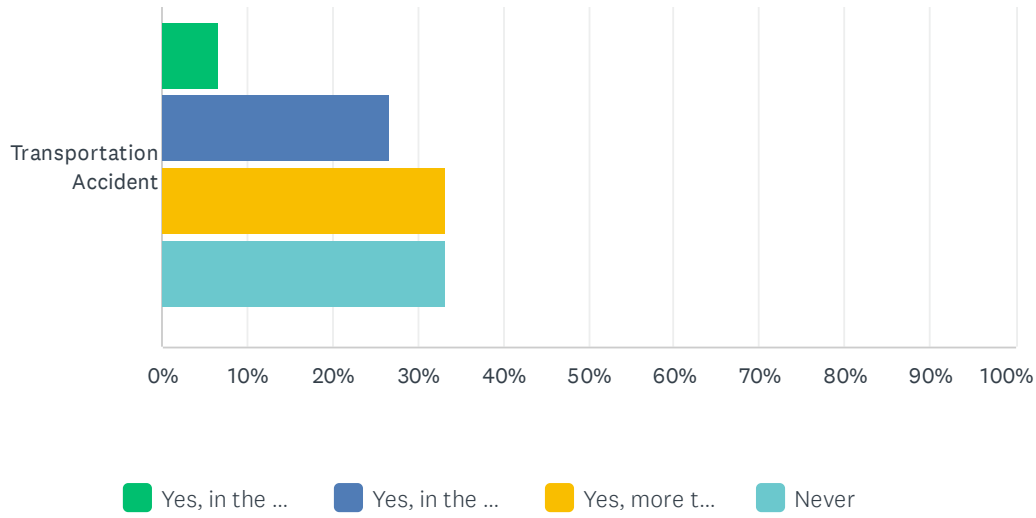
Answered: 15 Skipped: 0







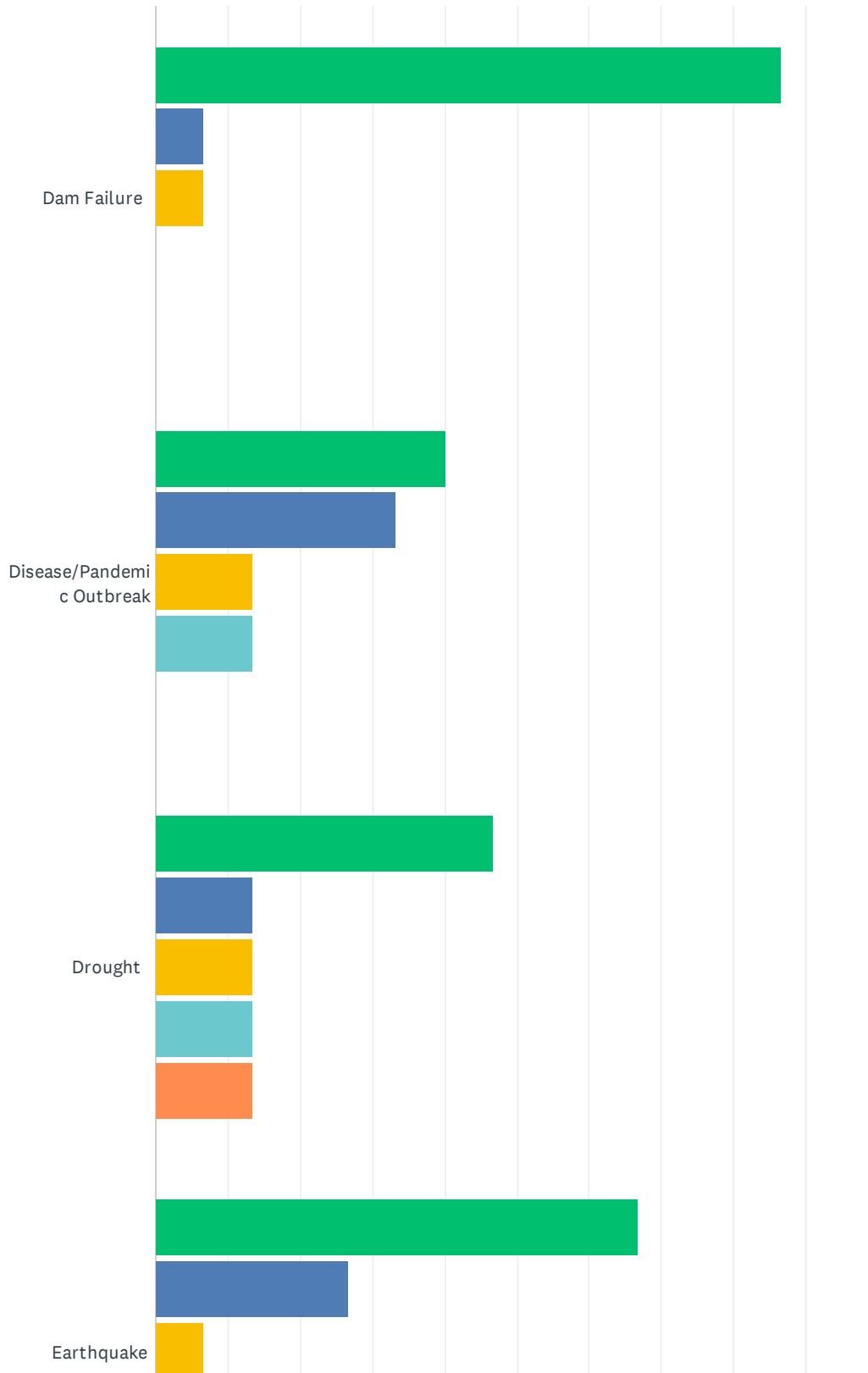


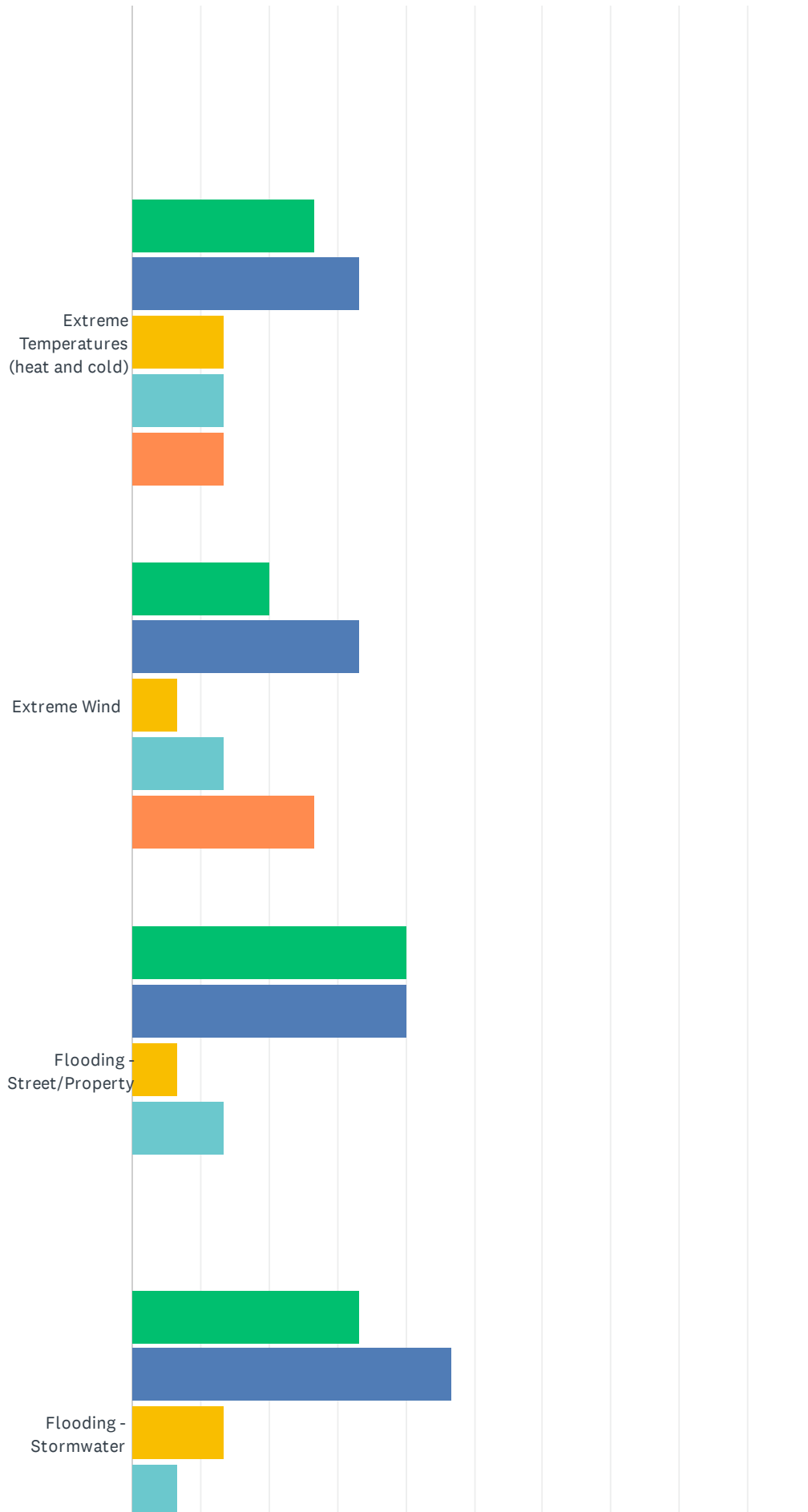


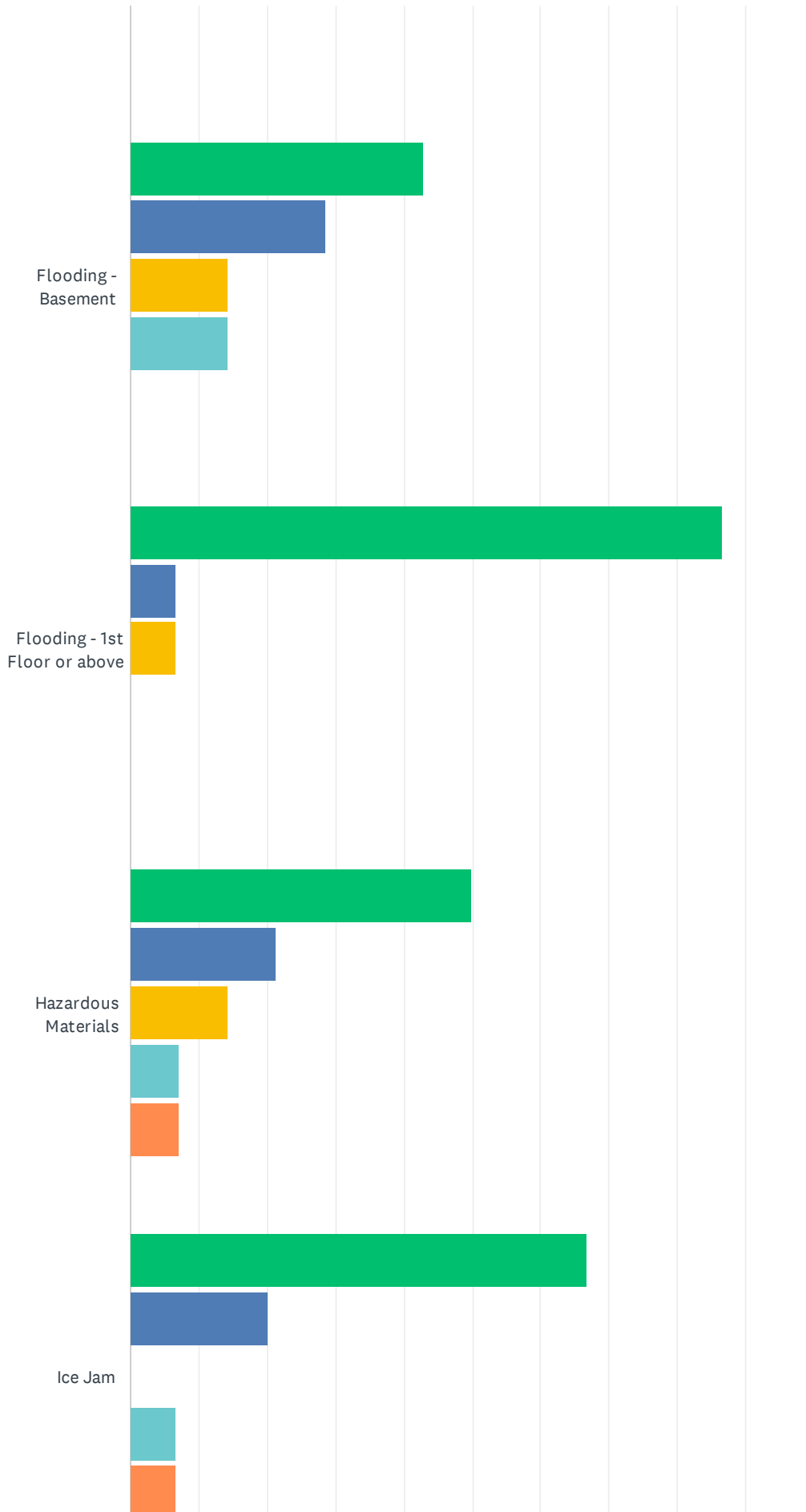
	YES, IN THE PAST YEAR.	YES, IN THE PAST FIVE (5) YEARS.	YES, MORE THAN FIVE (5) YEARS AGO.	NEVER	TOTAL
Dam Failure	0.00% 0	0.00% 0	0.00% 0	100.00% 15	15
Disease/Pandemic Outbreak	0.00% 0	86.67% 13	13.33% 2	0.00% 0	15
Drought	33.33% 5	13.33% 2	6.67% 1	46.67% 7	15
Earthquake	0.00% 0	13.33% 2	26.67% 4	60.00% 9	15
Extreme Temperature (heat and cold)	33.33% 5	40.00% 6	6.67% 1	20.00% 3	15
Extreme Wind	66.67% 10	20.00% 3	0.00% 0	13.33% 2	15
Flooding - Street/Land	20.00% 3	6.67% 1	33.33% 5	40.00% 6	15
Flooding - Stormwater	6.67% 1	20.00% 3	13.33% 2	60.00% 9	15
Flooding - Basement	6.67% 1	20.00% 3	0.00% 0	73.33% 11	15
Flooding - 1st floor or above.	0.00% 0	7.14% 1	0.00% 0	92.86% 13	14
Hazardous Materials	6.67% 1	6.67% 1	6.67% 1	80.00% 12	15
Ice Jam	13.33% 2	13.33% 2	13.33% 2	60.00% 9	15
Landslide	0.00% 0	6.67% 1	0.00% 0	93.33% 14	15
Lightning	66.67% 10	20.00% 3	0.00% 0	13.33% 2	15
Severe Storms (thunderstorms/hail)	53.33% 8	26.67% 4	13.33% 2	6.67% 1	15
Tornado	13.33% 2	6.67% 1	13.33% 2	66.67% 10	15
Wildfire	6.67% 1	6.67% 1	6.67% 1	80.00% 12	15
Winter Storm	46.67% 7	40.00% 6	6.67% 1	6.67% 1	15
Civil Unrest	0.00% 0	6.67% 1	0.00% 0	93.33% 14	15
Terrorism	0.00% 0	6.67% 1	0.00% 0	93.33% 14	15
Transportation Accident	6.67% 1	26.67% 4	33.33% 5	33.33% 5	15

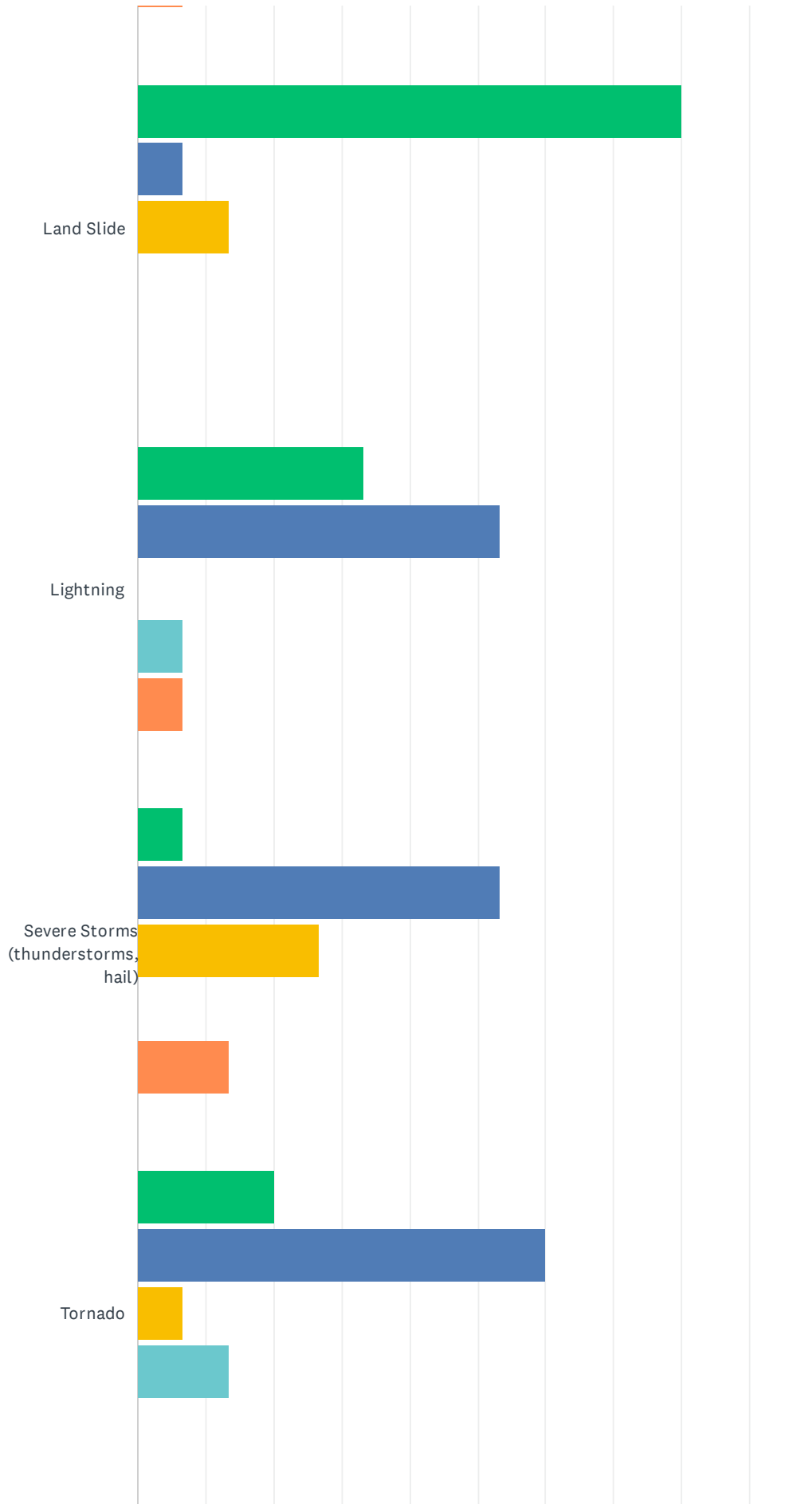
Q2 How concerned are you about the following hazards in Genesee County? Please check one for each hazard.

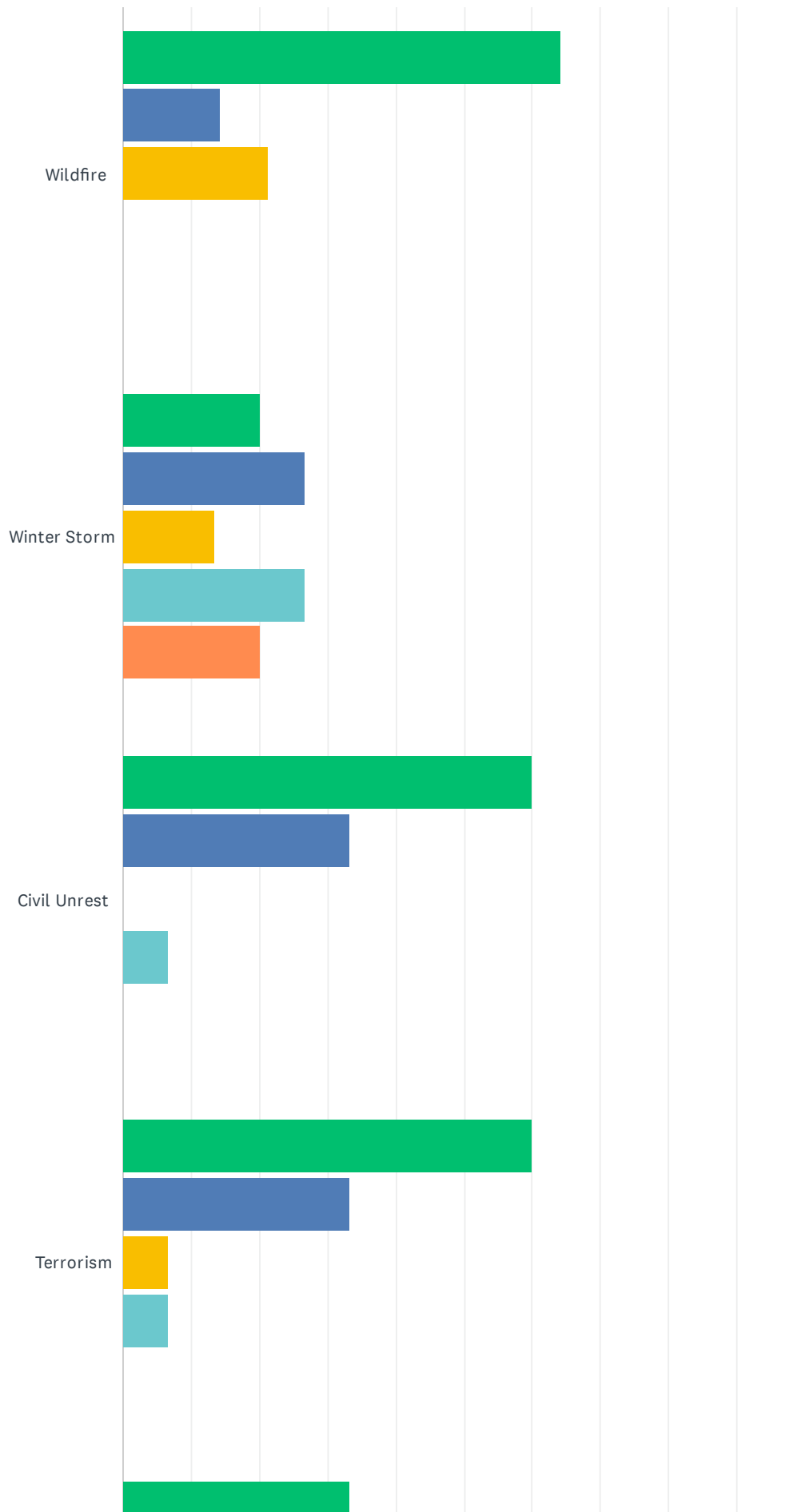
Answered: 15 Skipped: 0

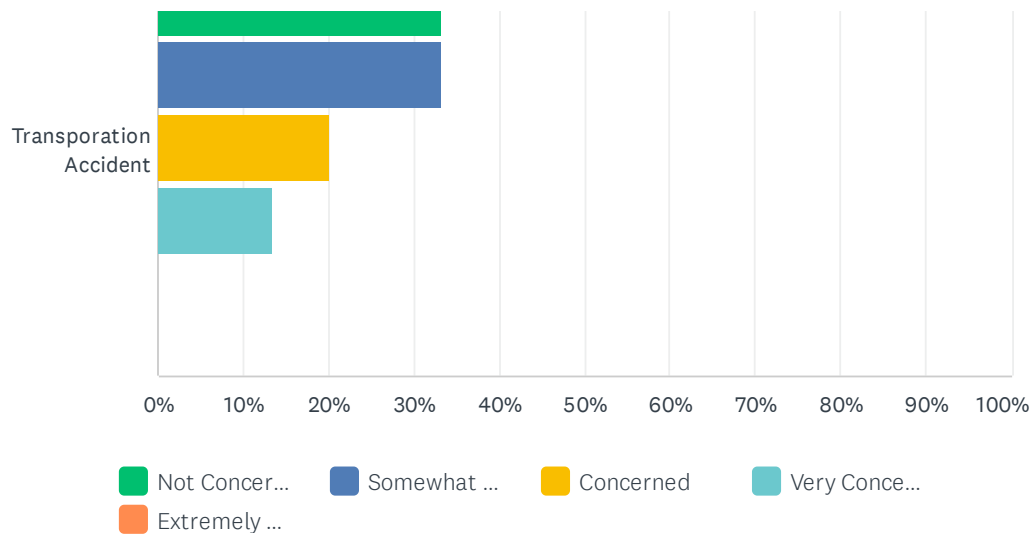










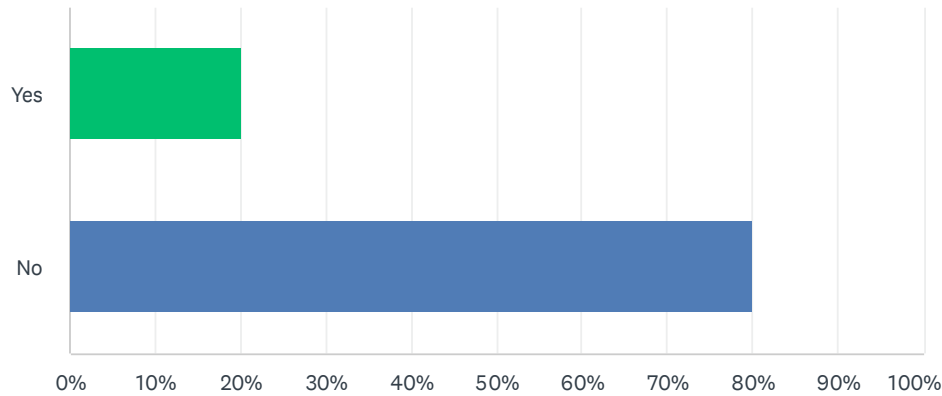


	NOT CONCERNED	SOMEWHAT CONCERNED	CONCERNED	VERY CONCERNED	EXTREMELY CONCERNED	TOTAL RESPONDENTS
Dam Failure	86.67% 13	6.67% 1	6.67% 1	0.00% 0	0.00% 0	15
Disease/Pandemic Outbreak	40.00% 6	33.33% 5	13.33% 2	13.33% 2	0.00% 0	15
Drought	46.67% 7	13.33% 2	13.33% 2	13.33% 2	13.33% 2	15
Earthquake	66.67% 10	26.67% 4	6.67% 1	0.00% 0	0.00% 0	15
Extreme Temperatures (heat and cold)	26.67% 4	33.33% 5	13.33% 2	13.33% 2	13.33% 2	15
Extreme Wind	20.00% 3	33.33% 5	6.67% 1	13.33% 2	26.67% 4	15
Flooding - Street/Property	40.00% 6	40.00% 6	6.67% 1	13.33% 2	0.00% 0	15
Flooding - Stormwater	33.33% 5	46.67% 7	13.33% 2	6.67% 1	0.00% 0	15
Flooding - Basement	42.86% 6	28.57% 4	14.29% 2	14.29% 2	0.00% 0	14
Flooding - 1st Floor or above	86.67% 13	6.67% 1	6.67% 1	0.00% 0	0.00% 0	15
Hazardous Materials	50.00% 7	21.43% 3	14.29% 2	7.14% 1	7.14% 1	14
Ice Jam	66.67% 10	20.00% 3	0.00% 0	6.67% 1	6.67% 1	15
Land Slide	80.00% 12	6.67% 1	13.33% 2	0.00% 0	0.00% 0	15
Lightning	33.33% 5	53.33% 8	0.00% 0	6.67% 1	6.67% 1	15
Severe Storms (thunderstorms, hail)	6.67% 1	53.33% 8	26.67% 4	0.00% 0	13.33% 2	15
Tornado	20.00% 3	60.00% 9	6.67% 1	13.33% 2	0.00% 0	15
Wildfire	64.29% 9	14.29% 2	21.43% 3	0.00% 0	0.00% 0	14
Winter Storm	20.00% 3	26.67% 4	13.33% 2	26.67% 4	20.00% 3	15
Civil Unrest	60.00% 9	33.33% 5	0.00% 0	6.67% 1	0.00% 0	15
Terrorism	60.00% 9	33.33% 5	6.67% 1	6.67% 1	0.00% 0	15
Transporation Accident	33.33% 5	33.33% 5	20.00% 3	13.33% 2	0.00% 0	15

#	OTHER (PLEASE SPECIFY)	DATE
1	AI	5/3/2025 9:42 PM

Q3 In the past, has your home been damaged by a hazard event (i.e., flood waters entering the first floor of your home or pipes freezing during periods of cold temperatures).

Answered: 15 Skipped: 0

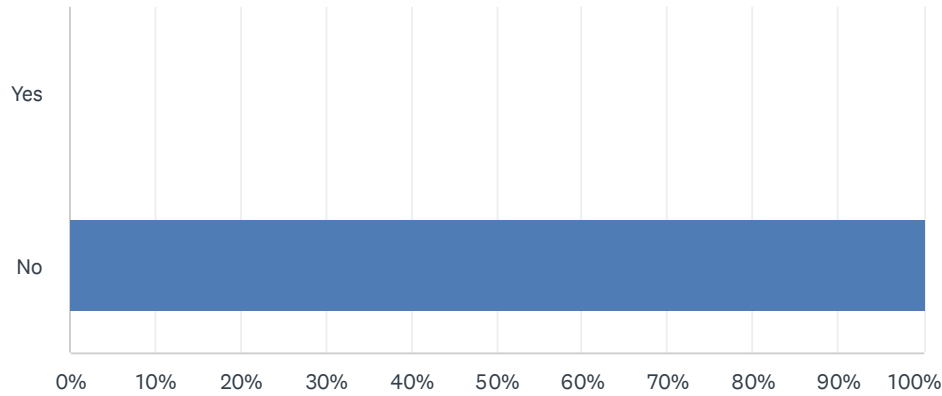


ANSWER CHOICES	RESPONSES
Yes	20.00% 3
No	80.00% 12
TOTAL	15

#	PLEASE IDENTIFY THE TYPE OF HAZARD AND EXPLAIN DAMAGE SUSTAINED AND WHEN IT OCCURRED.	DATE
1	Frozen pipes in February 2017.	5/5/2025 1:55 PM
2	Basement has flooded three times since 2017	5/3/2025 9:42 PM

Q4 If you answered 'yes' above, did you report the damages to your local police or fire departments or to an emergency management agency?

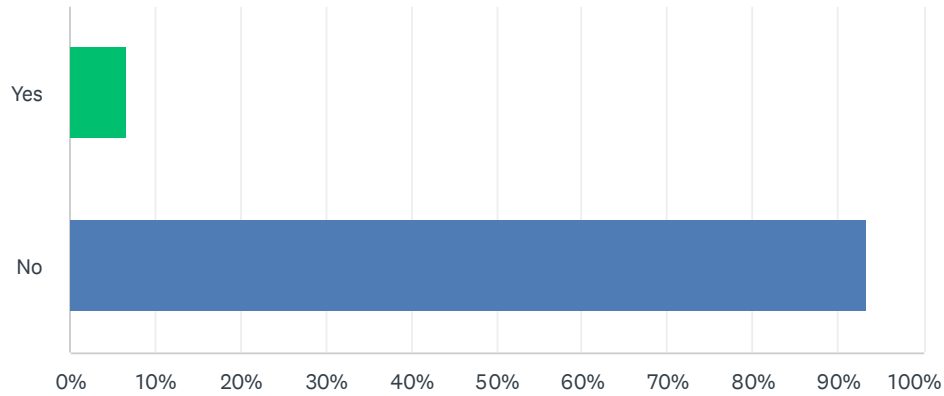
Answered: 12 Skipped: 3



ANSWER CHOICES	RESPONSES	
Yes	0.00%	0
No	100.00%	12
TOTAL		12

Q5 To the best of your knowledge, is your property located in a designated floodplain? If you do not know, click here to find out.

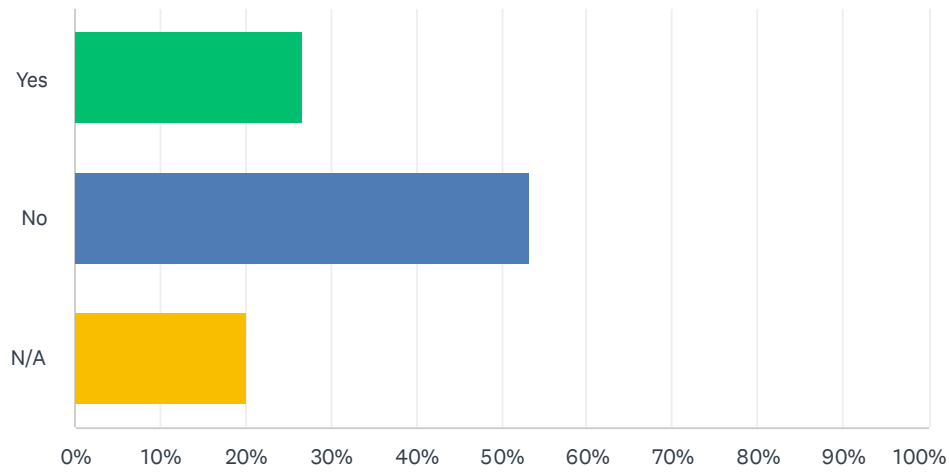
Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	6.67%	1
No	93.33%	14
TOTAL		15

Q6 Do you have flood insurance on your property?

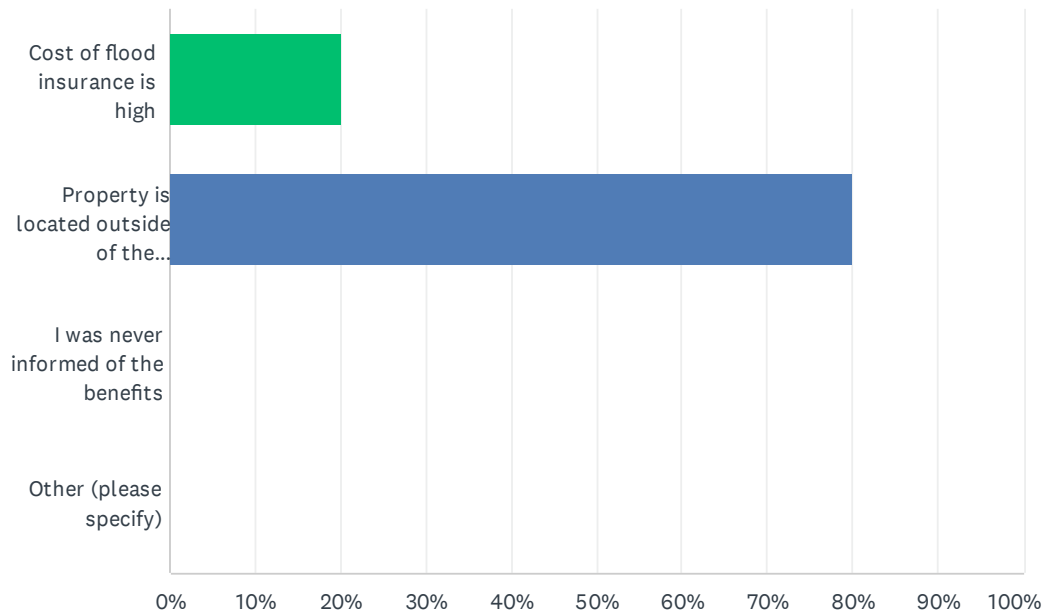
Answered: 15 Skipped: 0



ANSWER CHOICES	RESPONSES	
Yes	26.67%	4
No	53.33%	8
N/A	20.00%	3
TOTAL		15

Q7 If you do not have flood insurance, please specify the reason(s) why.

Answered: 10 Skipped: 5

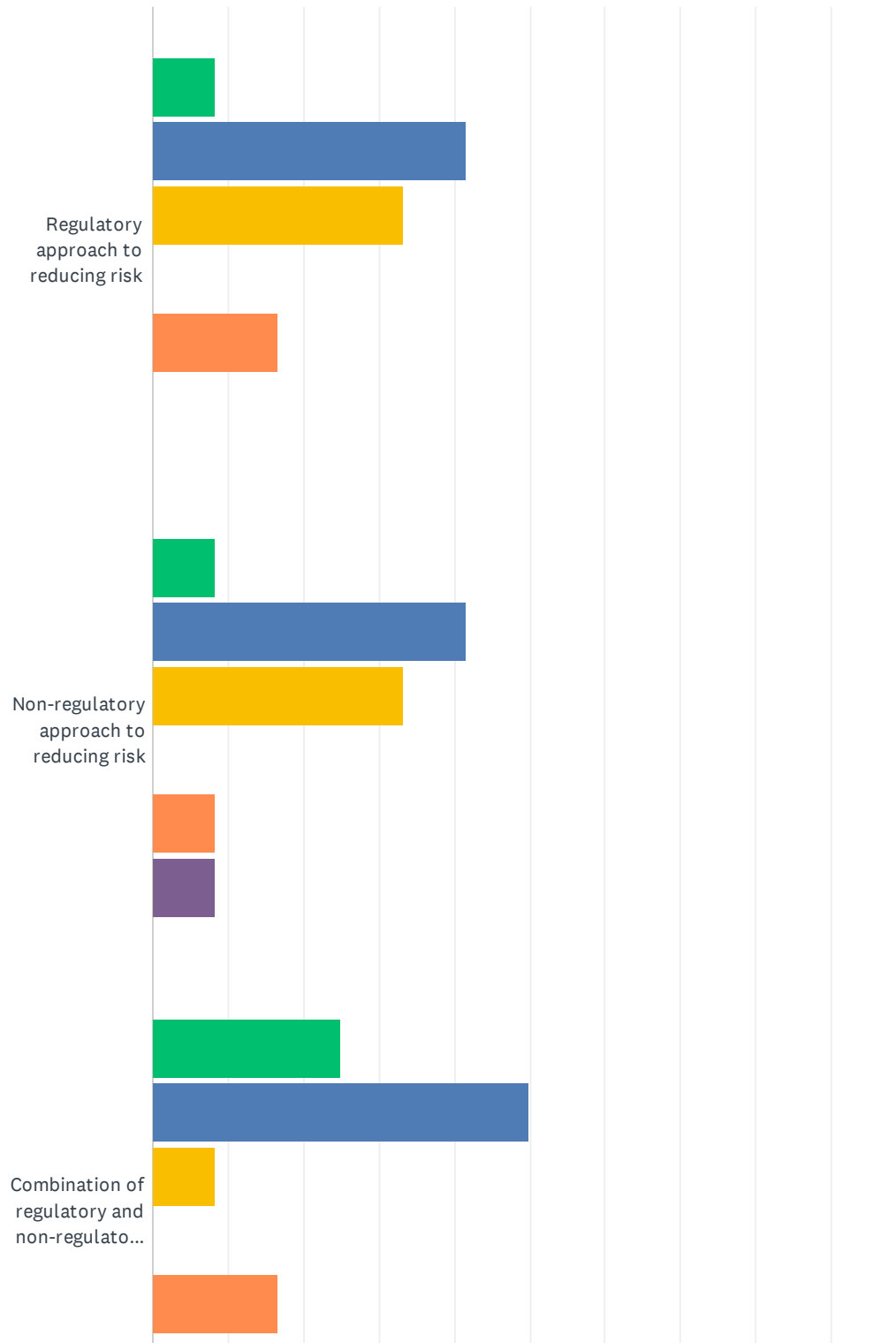


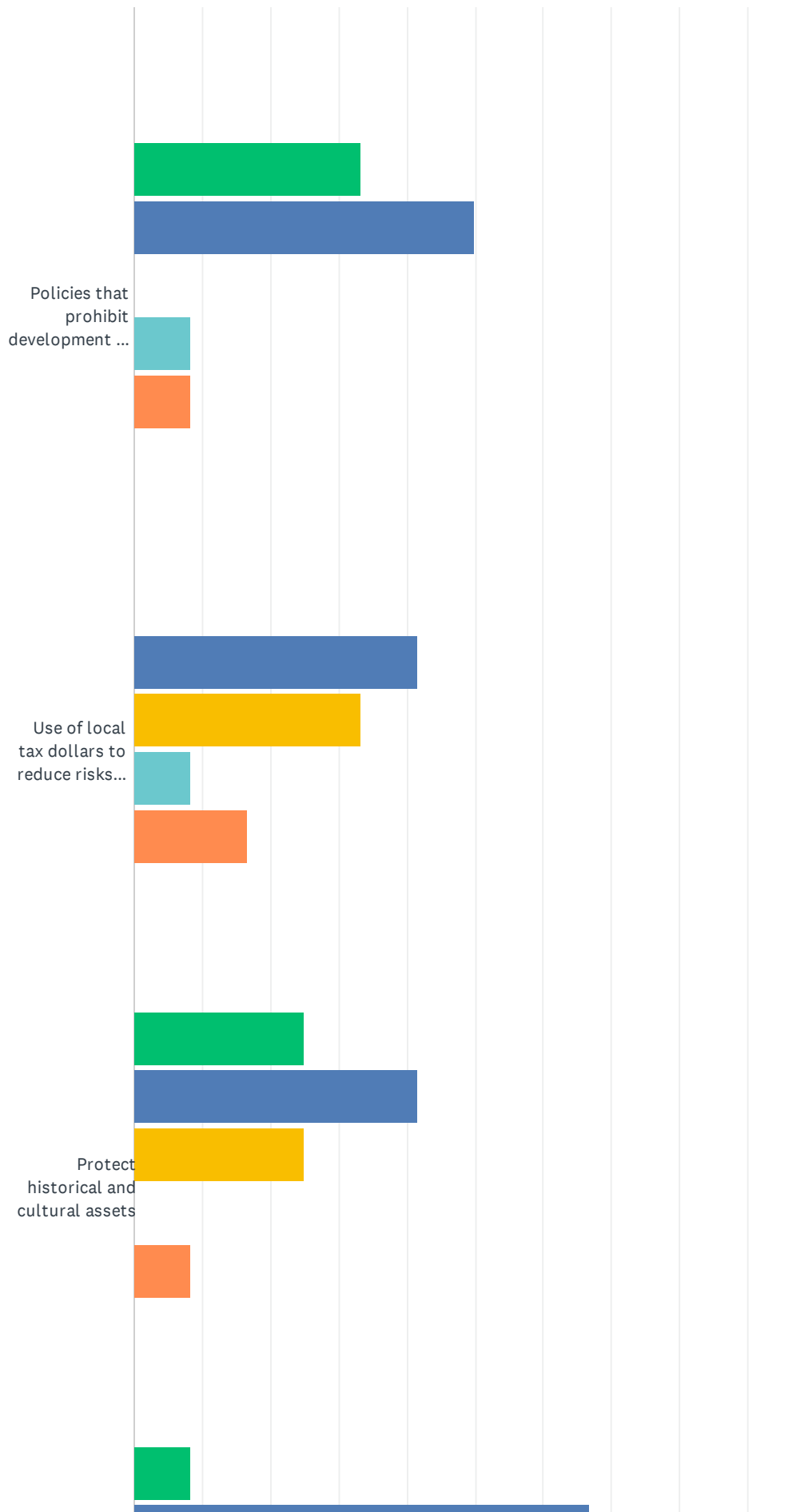
ANSWER CHOICES	RESPONSES	
Cost of flood insurance is high	20.00%	2
Property is located outside of the floodplain	80.00%	8
I was never informed of the benefits	0.00%	0
Other (please specify)	0.00%	0
TOTAL		10

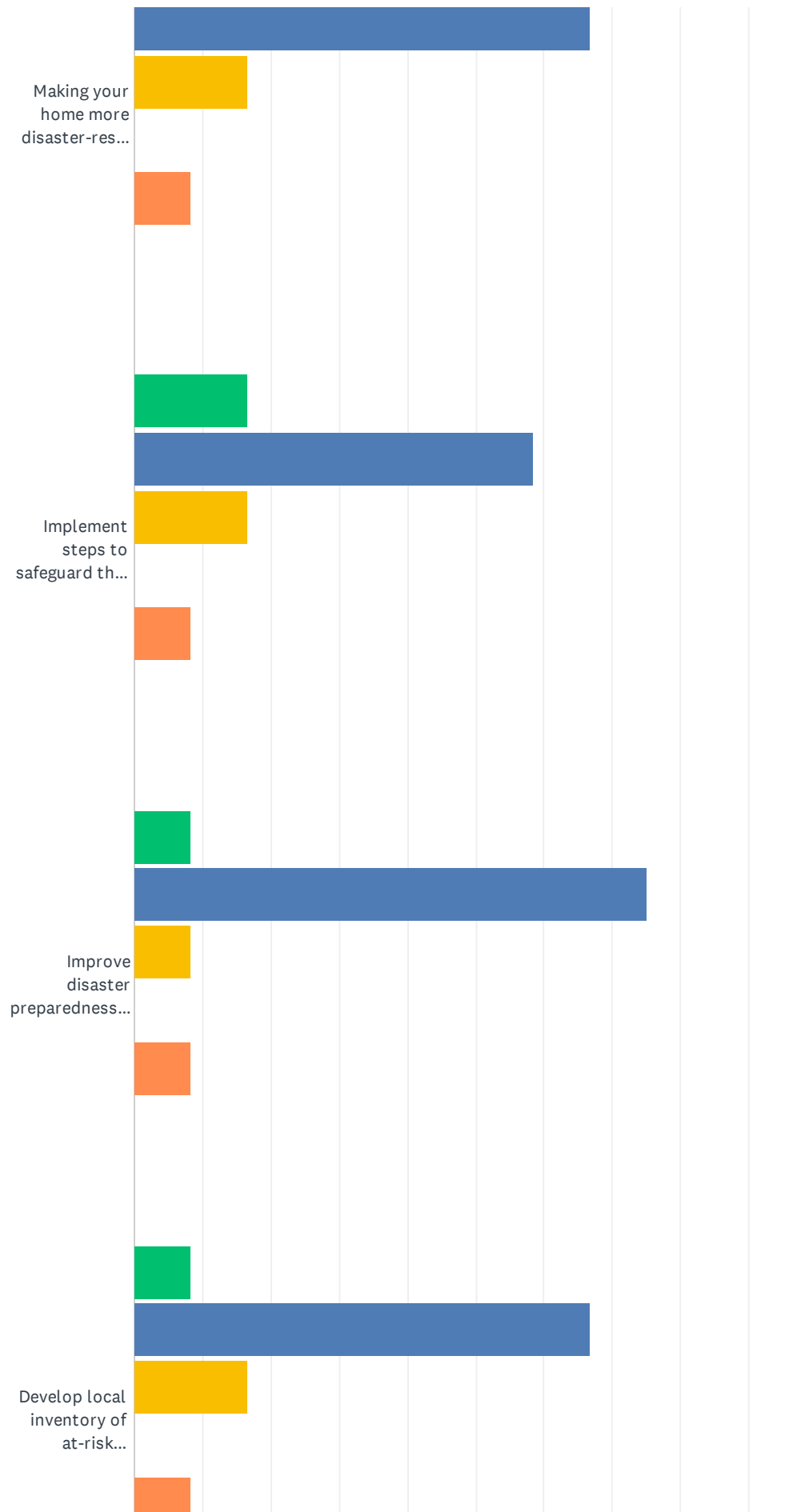
#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

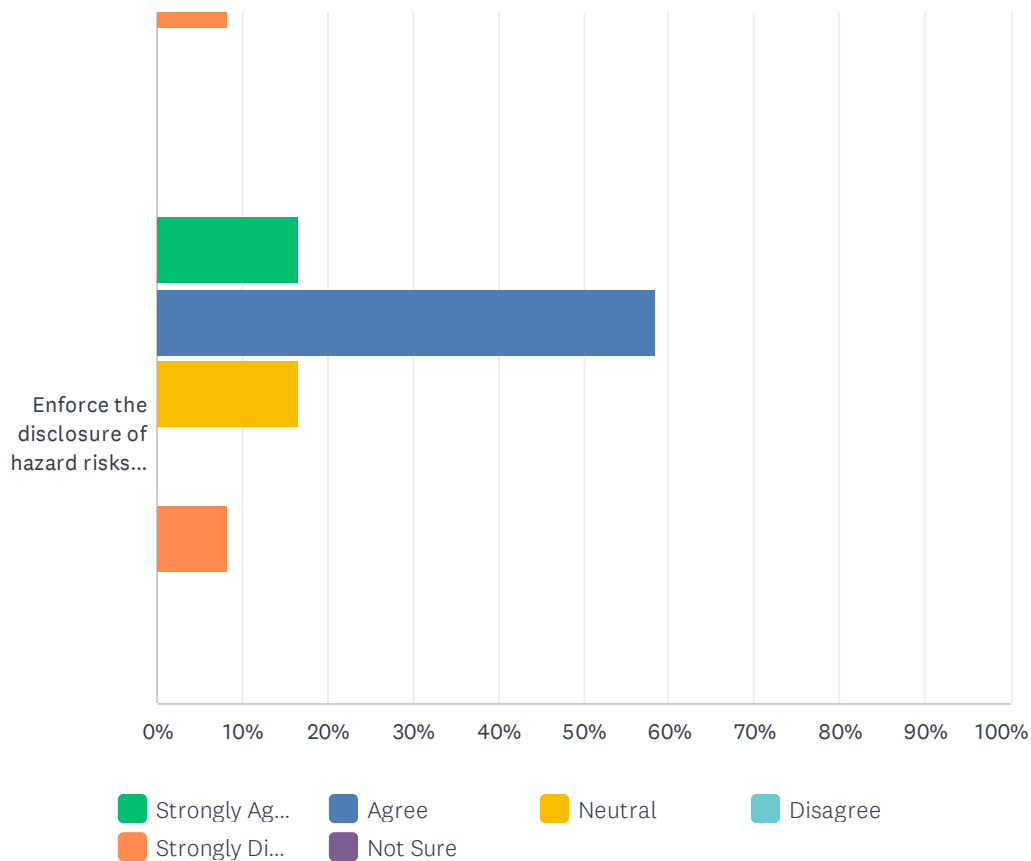
Q8 A number of activities can reduce your community's risk from hazards. These activities can be both regulatory and non-regulatory. Do you agree that the following strategies help reduce the risk and loss associated with hazards in Genesee County?

Answered: 12 Skipped: 3







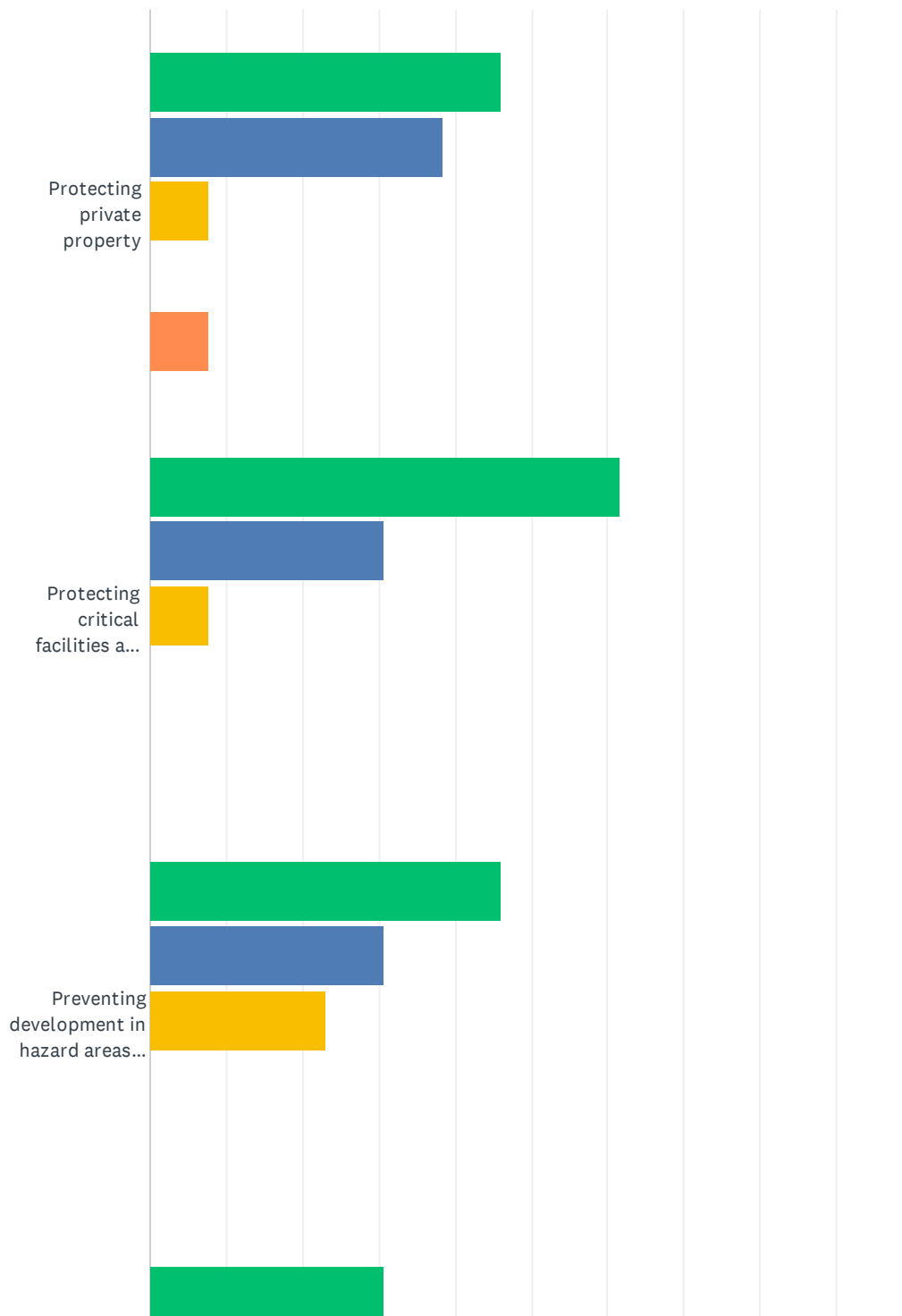


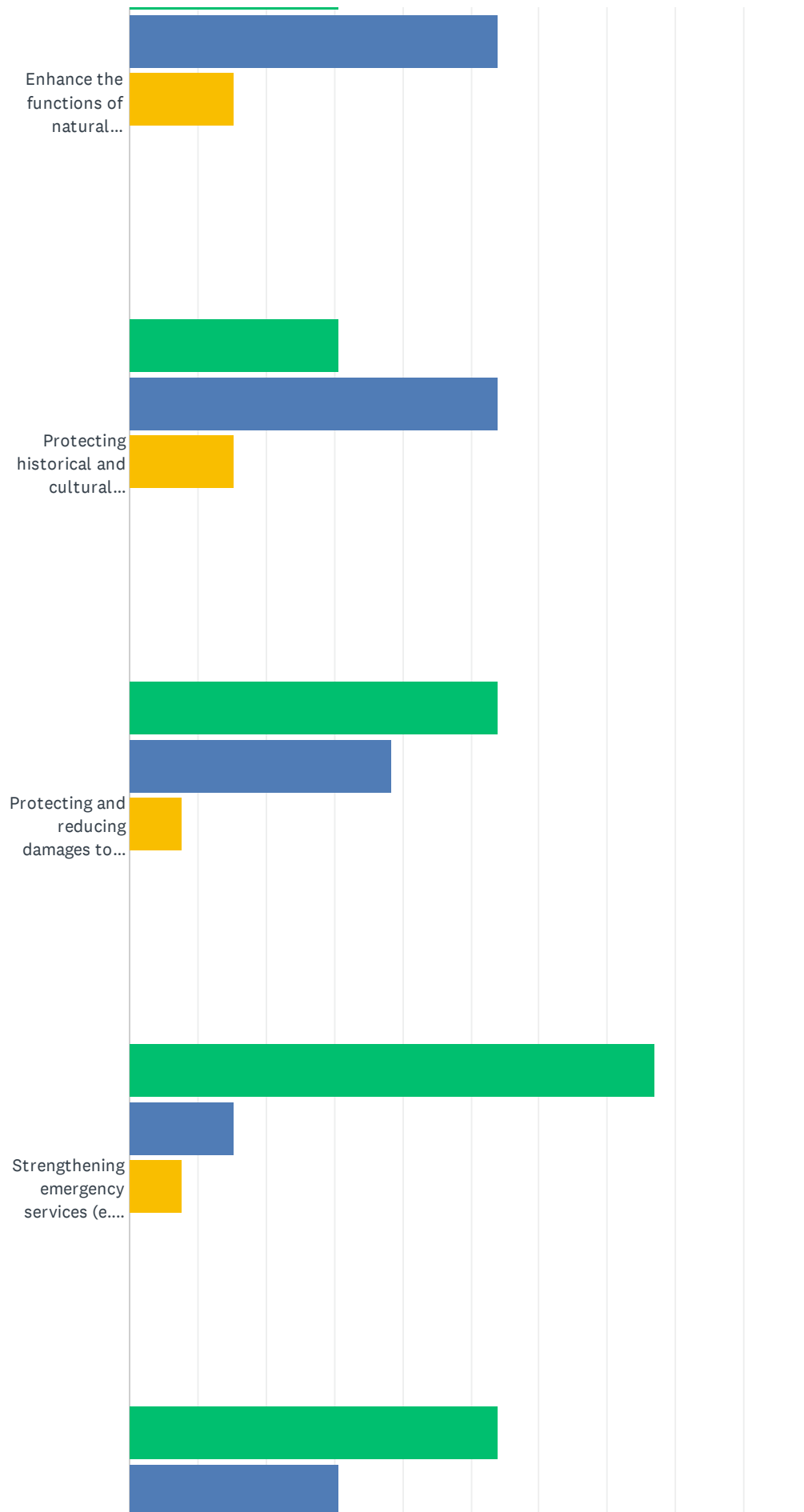
	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE	NOT SURE	TOTAL
Regulatory approach to reducing risk	8.33% 1	41.67% 5	33.33% 4	0.00% 0	16.67% 2	0.00% 0	12
Non-regulatory approach to reducing risk	8.33% 1	41.67% 5	33.33% 4	0.00% 0	8.33% 1	8.33% 1	12
Combination of regulatory and non-regulatory approaches to reducing risk	25.00% 3	50.00% 6	8.33% 1	0.00% 0	16.67% 2	0.00% 0	12
Policies that prohibit development in areas subject to hazards	33.33% 4	50.00% 6	0.00% 0	8.33% 1	8.33% 1	0.00% 0	12
Use of local tax dollars to reduce risks and losses from hazards	0.00% 0	41.67% 5	33.33% 4	8.33% 1	16.67% 2	0.00% 0	12
Protect historical and cultural assets	25.00% 3	41.67% 5	25.00% 3	0.00% 0	8.33% 1	0.00% 0	12
Making your home more disaster-resilient	8.33% 1	66.67% 8	16.67% 2	0.00% 0	8.33% 1	0.00% 0	12
Implement steps to safeguard the local economy following a disaster	16.67% 2	58.33% 7	16.67% 2	0.00% 0	8.33% 1	0.00% 0	12
Improve disaster preparedness of local schools	8.33% 1	75.00% 9	8.33% 1	0.00% 0	8.33% 1	0.00% 0	12
Develop local inventory of at-risk buildings and infrastructure	8.33% 1	66.67% 8	16.67% 2	0.00% 0	8.33% 1	0.00% 0	12
Enforce the disclosure of hazard risks during real estate transactions	16.67% 2	58.33% 7	16.67% 2	0.00% 0	8.33% 1	0.00% 0	12

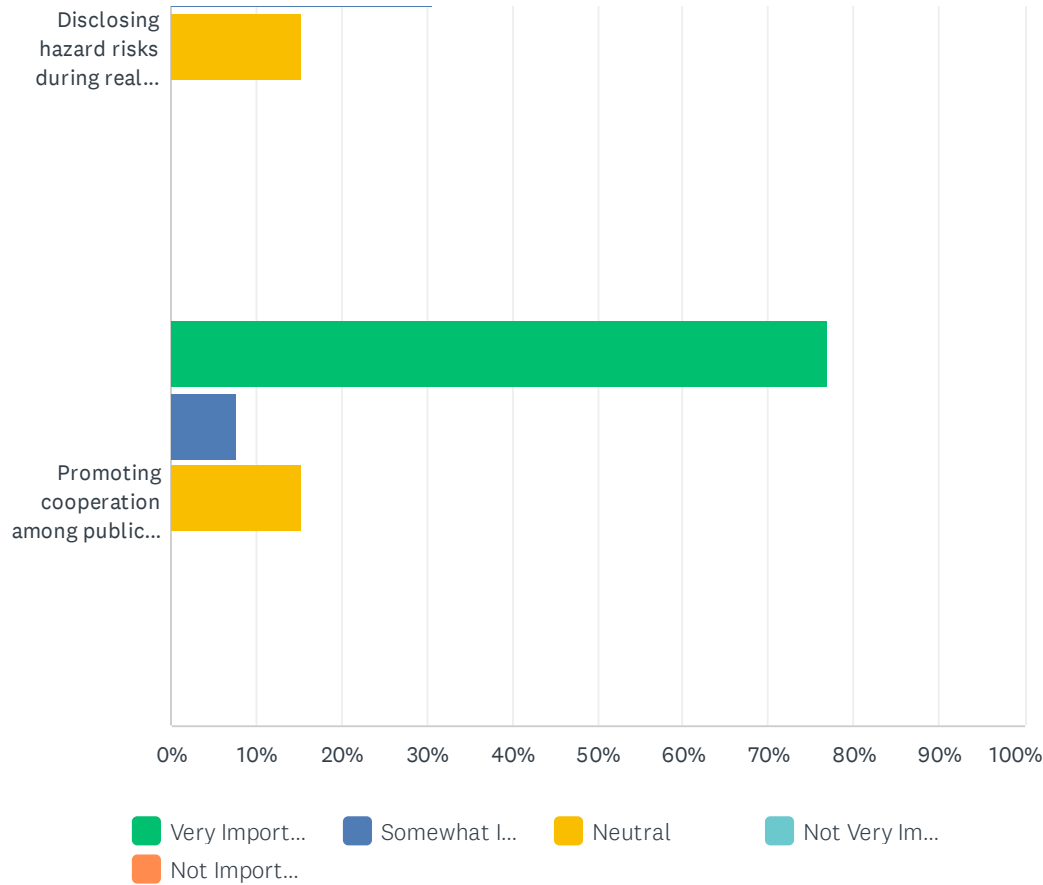
#	OTHER (PLEASE SPECIFY)	DATE
1	stop just stop wasting our tax dollers	5/1/2025 2:48 PM

Q9 Hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help us determine the priorities of our residents regarding planning for hazards in Genesee County. Please tell us how important each one is to you.

Answered: 13 Skipped: 2







	VERY IMPORTANT	SOMEWHAT IMPORTANT	NEUTRAL	NOT VERY IMPORTANT	NOT IMPORTANT	TOTAL
Protecting private property	46.15% 6	38.46% 5	7.69% 1	0.00% 0	7.69% 1	13
Protecting critical facilities and community lifelines	61.54% 8	30.77% 4	7.69% 1	0.00% 0	0.00% 0	13
Preventing development in hazard areas (e.g., restrict building in the floodplain)	46.15% 6	30.77% 4	23.08% 3	0.00% 0	0.00% 0	13
Enhance the functions of natural features (e.g., streams, wetlands)	30.77% 4	53.85% 7	15.38% 2	0.00% 0	0.00% 0	13
Protecting historical and cultural landmarks	30.77% 4	53.85% 7	15.38% 2	0.00% 0	0.00% 0	13
Protecting and reducing damages to utilities	53.85% 7	38.46% 5	7.69% 1	0.00% 0	0.00% 0	13
Strengthening emergency services (e.g., police, fire, EMS)	76.92% 10	15.38% 2	7.69% 1	0.00% 0	0.00% 0	13
Disclosing hazard risks during real estate transactions	53.85% 7	30.77% 4	15.38% 2	0.00% 0	0.00% 0	13
Promoting cooperation among public agencies, residents, non-profit organizations, and local businesses	76.92% 10	7.69% 1	15.38% 2	0.00% 0	0.00% 0	13

Q10 Please identify any specific vulnerabilities that you are aware of in or outside of your city/town/village (e.g., flood-prone areas or specific properties, critical facilities that lack backup power, etc.). Please list street names and other specific identifiers if possible.

Answered: 5 Skipped: 10

#	RESPONSES	DATE
1	City of Batavia Water Facility	5/3/2025 9:54 PM
2	rt 77 in the village under csx	5/2/2025 4:03 PM
3	Agriculture waste products.	5/2/2025 10:09 AM
4	n/a	5/1/2025 10:41 PM
5	in genesee county the big'st problem is the way the county think's it's a big county and waist our money on this kind of BULLSHIT. STOP IT.	5/1/2025 2:48 PM

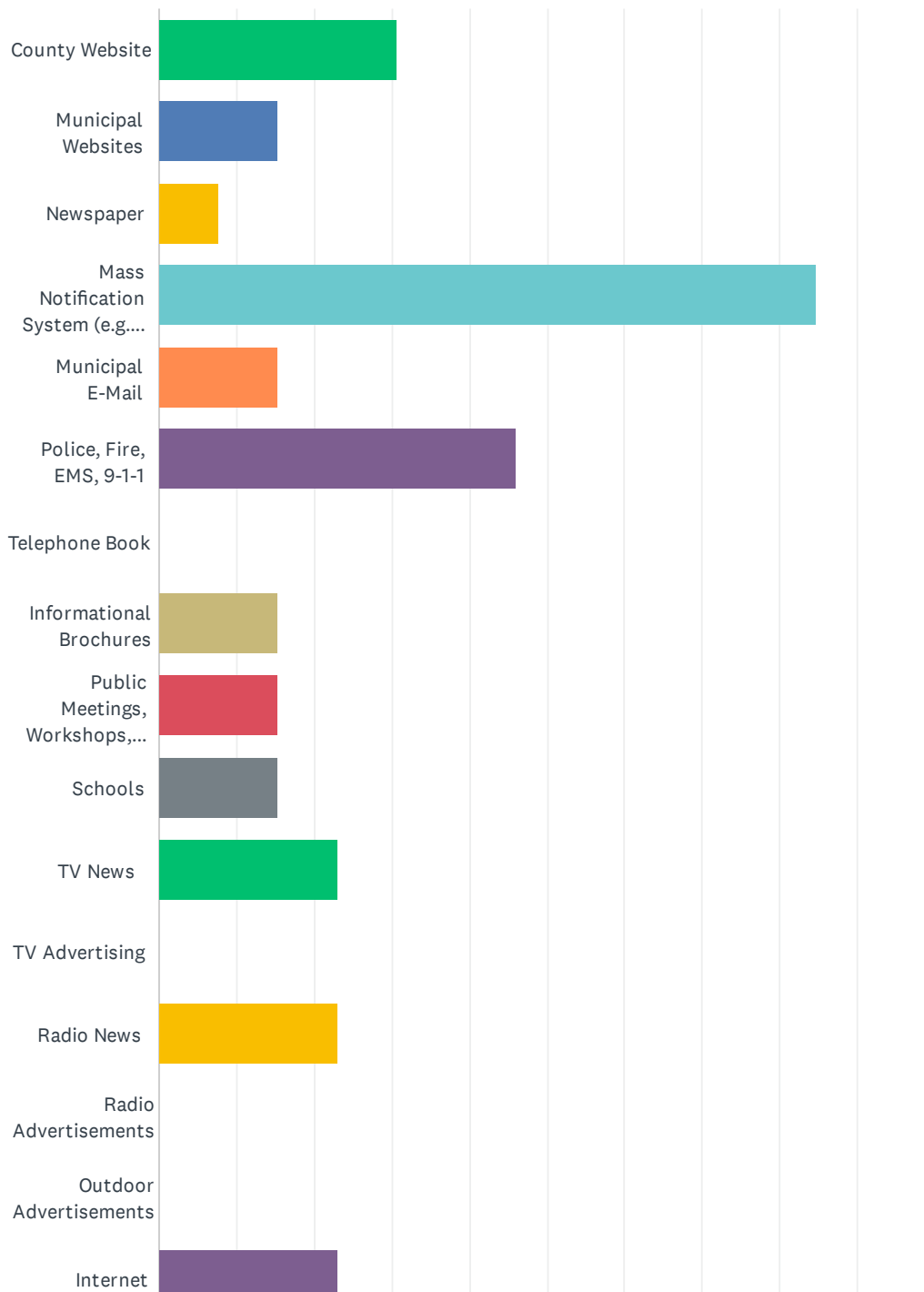
Q11 Critical facilities are defined by FEMA as those structures from which essential services and functions for survival, continuation of public safety actions, and disaster recovery are performed or provided. examples include shelters, emergency operation centers; public health, public drinking water, sewer and wastewater facilities are all examples of critical facilities. Have you ever had difficulty or could not access a critical facility within your community? Please elaborate below.

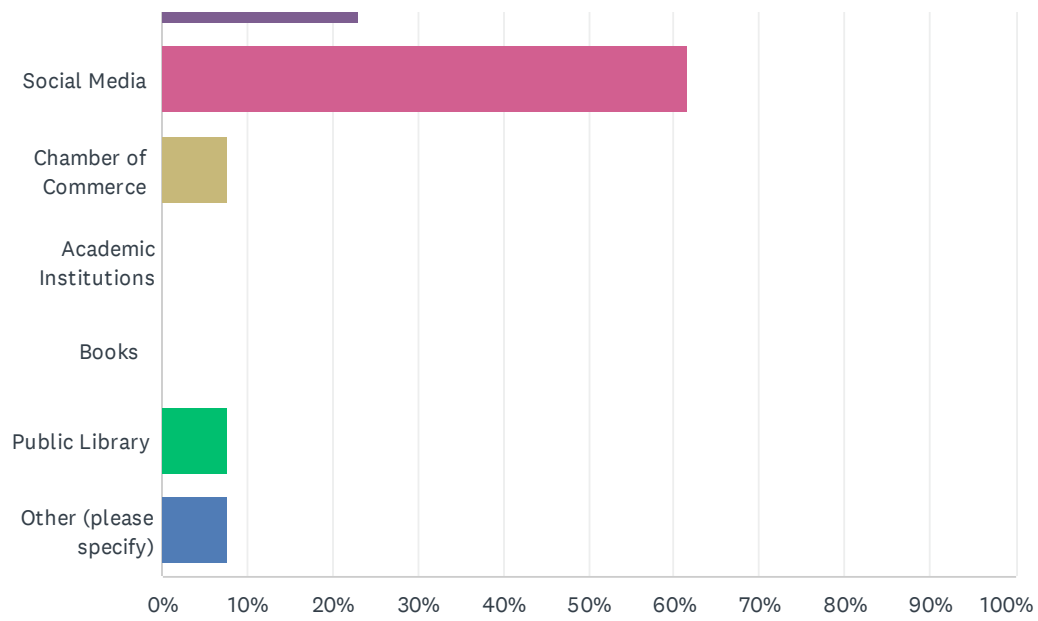
Answered: 8 Skipped: 7

#	RESPONSES	DATE
1	No	5/7/2025 9:54 PM
2	No	5/4/2025 1:50 PM
3	No	5/4/2025 11:58 AM
4	no	5/4/2025 7:55 AM
5	No	5/3/2025 9:54 PM
6	no	5/2/2025 4:03 PM
7	No	5/2/2025 10:09 AM
8	No	4/22/2025 10:34 PM

Q12 Effective communication and information sharing is crucial for communities to improve their hazard awareness and readiness, enhance response and recovery efforts, and build long-term resiliency. To ensure information is being shared effectively, identify the top three (3) methods for emergency communication and information sharing that will help you before, during, and after a disaster:

Answered: 13 Skipped: 2



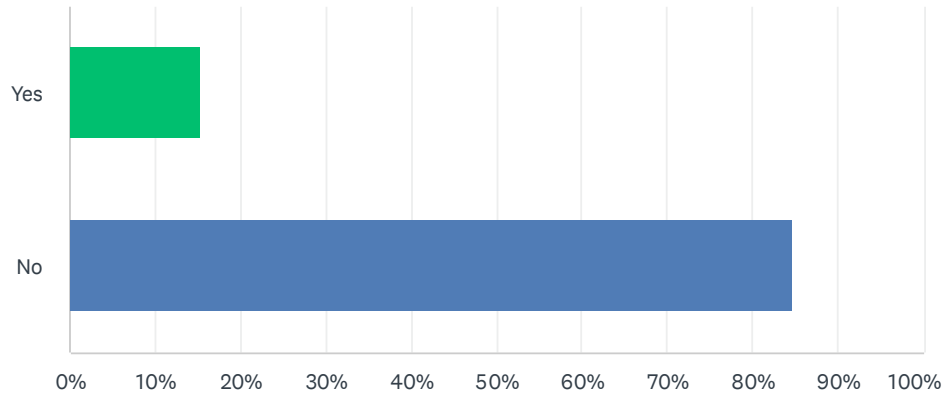


ANSWER CHOICES	RESPONSES	
County Website	30.77%	4
Municipal Websites	15.38%	2
Newspaper	7.69%	1
Mass Notification System (e.g., NY Alert, or other phone notification system)	84.62%	11
Municipal E-Mail	15.38%	2
Police, Fire, EMS, 9-1-1	46.15%	6
Telephone Book	0.00%	0
Informational Brochures	15.38%	2
Public Meetings, Workshops, Public Awareness Events	15.38%	2
Schools	15.38%	2
TV News	23.08%	3
TV Advertising	0.00%	0
Radio News	23.08%	3
Radio Advertisements	0.00%	0
Outdoor Advertisements	0.00%	0
Internet	23.08%	3
Social Media	61.54%	8
Chamber of Commerce	7.69%	1
Academic Institutions	0.00%	0
Books	0.00%	0
Public Library	7.69%	1
Other (please specify)	7.69%	1
Total Respondents: 13		

#	OTHER (PLEASE SPECIFY)	DATE
1	T shirts	5/3/2025 9:54 PM

Q13 Would you prefer information or communications be shared in a language other than English?

Answered: 13 Skipped: 2



ANSWER CHOICES	RESPONSES	
Yes	15.38%	2
No	84.62%	11
TOTAL		13

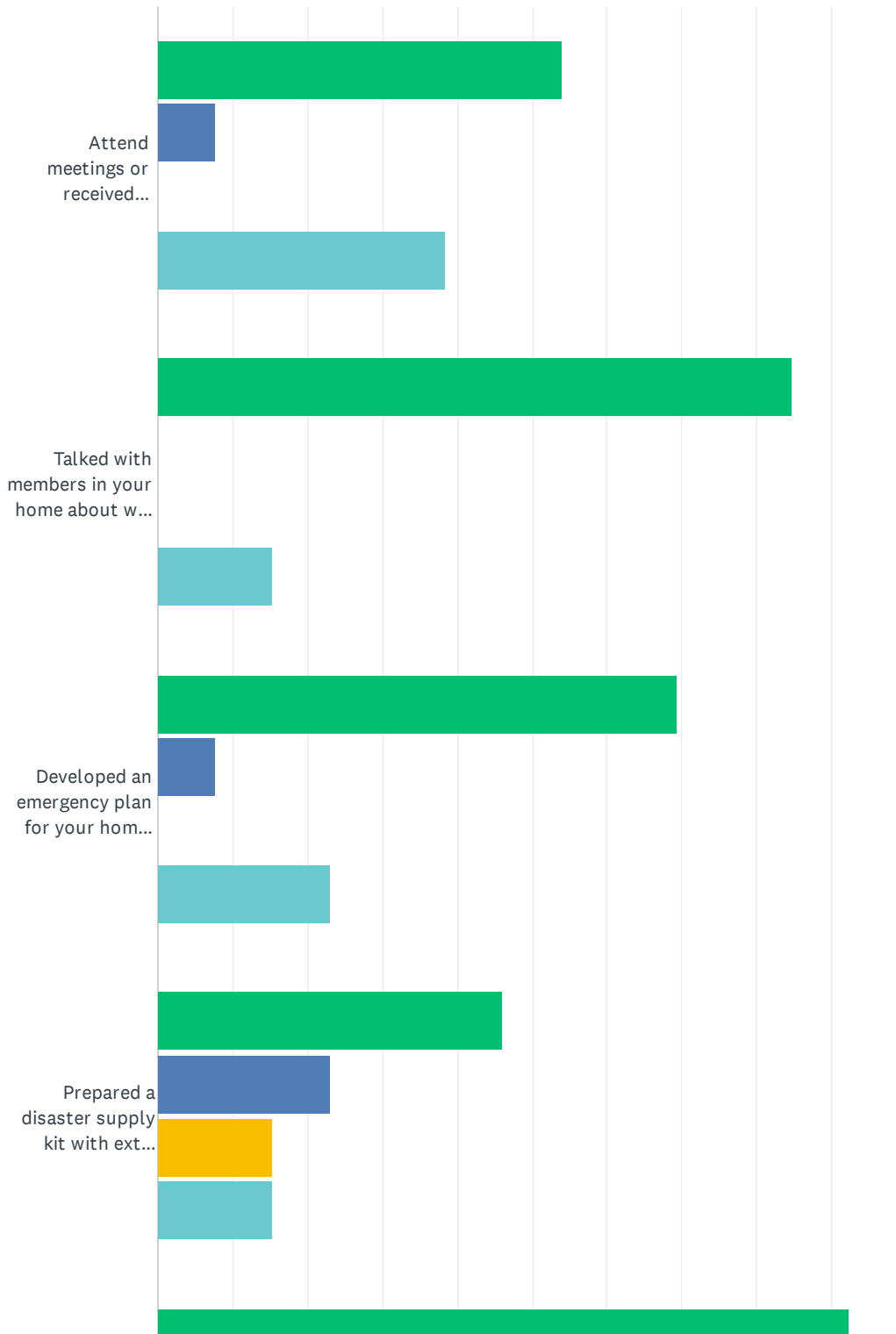
Q14 Do you have any other comments, questions, or concerns regarding hazard mitigation in Genesee County?

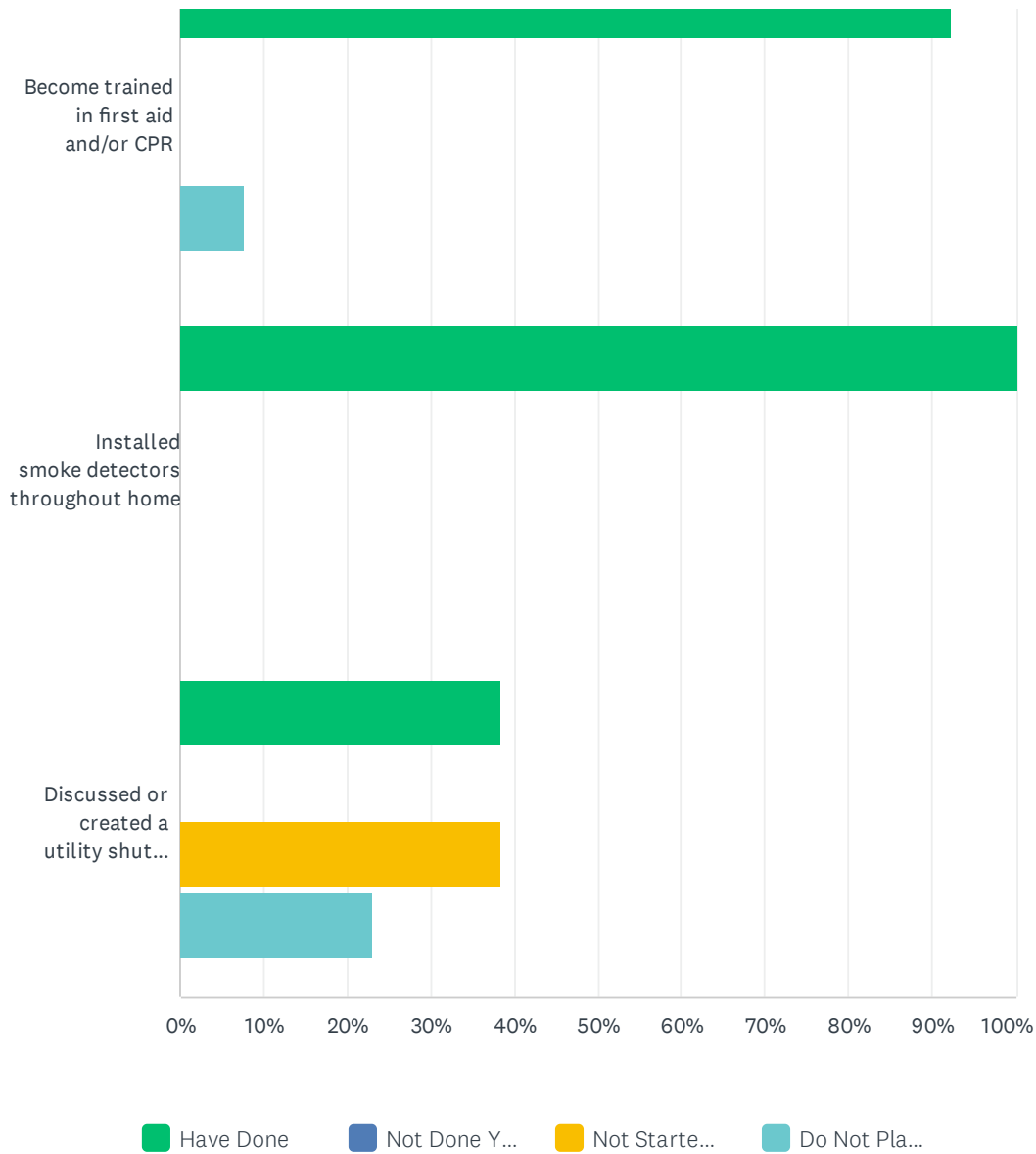
Answered: 7 Skipped: 8

#	RESPONSES	DATE
1	No	5/7/2025 9:54 PM
2	Fire.EMS, and the general public typically go to The Video News Service on Facebook for emergency updates. Critical information often appears there before it is available on Ready Genesee or the County website. It would be nice if road closures and conditions were available from County resources in real time.	5/5/2025 2:29 PM
3	No	5/4/2025 11:58 AM
4	Munts and Stoller	5/3/2025 9:54 PM
5	I am concerned over waste water from the hydrogen plant in Alabama.	5/2/2025 10:09 AM
6	no	5/1/2025 10:41 PM
7	No	4/22/2025 10:34 PM

Q15 In the following list, please check those activities that you have done in your home, plan to do in the near future, have not done, or are unable to do. Please check one answer for each activity that you or someone in your household have done.

Answered: 13 Skipped: 2





	HAVE DONE	NOT DONE YET, BUT STARTED	NOT STARTED YET, BUT PLAN TO DO	DO NOT PLAN TO DO	TOTAL
Attend meetings or received information on disasters or emergency preparedness	53.85% 7	7.69% 1	0.00% 0	38.46% 5	13
Talked with members in your home about what to do in case of a disaster or emergency	84.62% 11	0.00% 0	0.00% 0	15.38% 2	13
Developed an emergency plan for your home and family in order to decide what everyone will do in the event of a disaster or emergency	69.23% 9	7.69% 1	0.00% 0	23.08% 3	13
Prepared a disaster supply kit with extra food, water, batteries, etc.	46.15% 6	23.08% 3	15.38% 2	15.38% 2	13
Become trained in first aid and/or CPR	92.31% 12	0.00% 0	0.00% 0	7.69% 1	13
Installed smoke detectors throughout home	100.00% 13	0.00% 0	0.00% 0	0.00% 0	13
Discussed or created a utility shutoff procedure in the event of a disaster	38.46% 5	0.00% 0	38.46% 5	23.08% 3	13

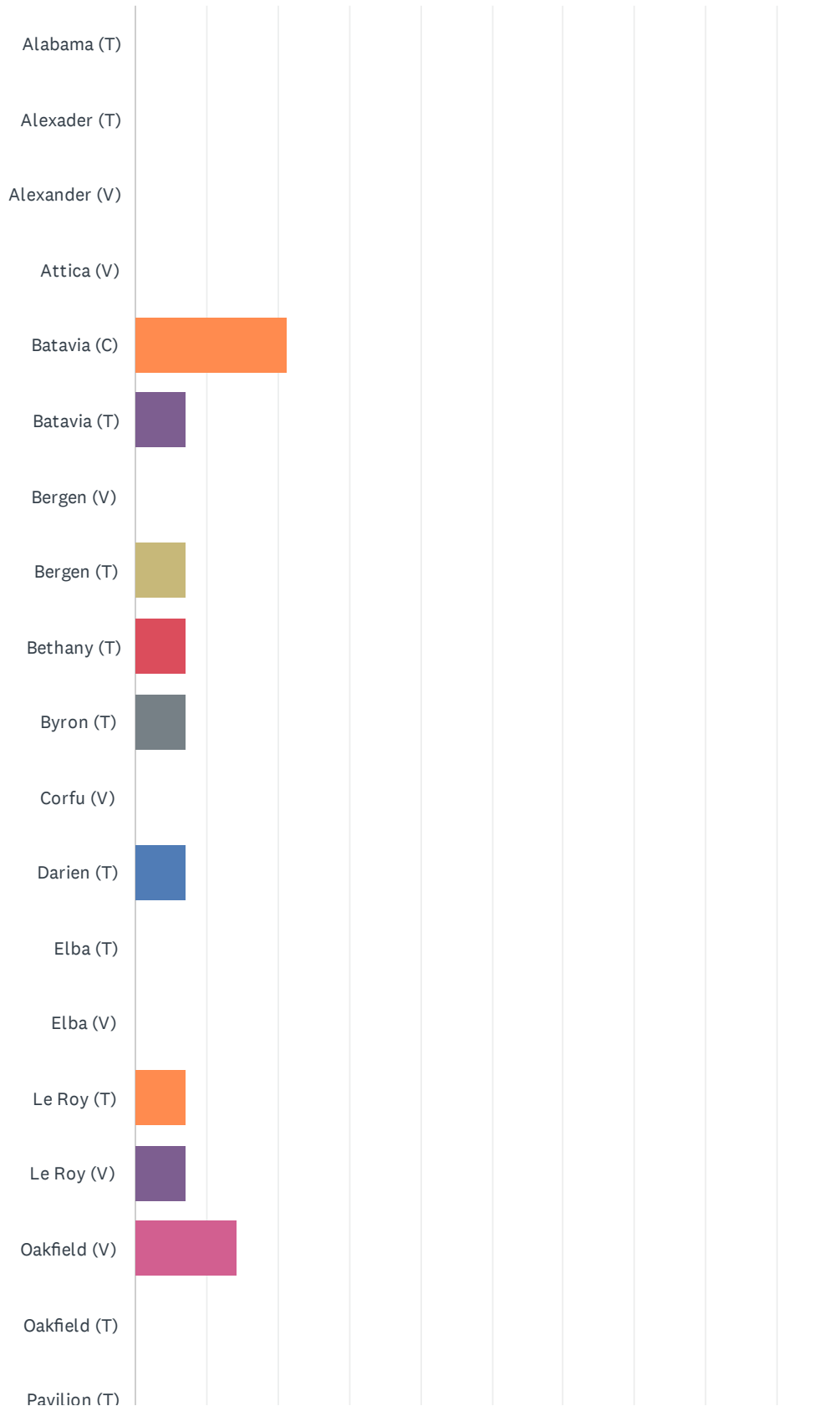
Q16 Do you have any relevant questions or comments for Genesee County?

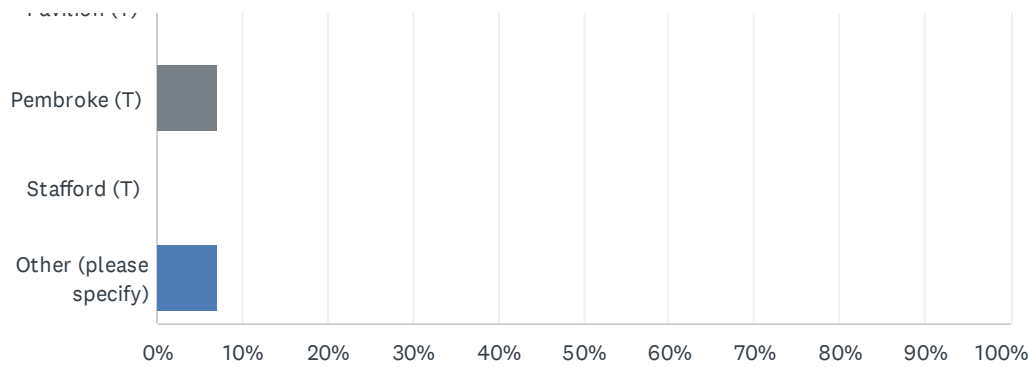
Answered: 6 Skipped: 9

#	RESPONSES	DATE
1	No	5/7/2025 9:54 PM
2	The Ready Genesee app and County website need to be more robust and responsive. I personally find the Genesee County website difficult to navigate when looking for information during a disaster, such as an extreme weather event.	5/5/2025 2:29 PM
3	No	5/4/2025 11:58 AM
4	Website is good 👍	5/3/2025 9:54 PM
5	No	5/2/2025 10:09 AM
6	No	4/22/2025 10:34 PM

Q17 Please indicate the municipality in which you live:

Answered: 14 Skipped: 1



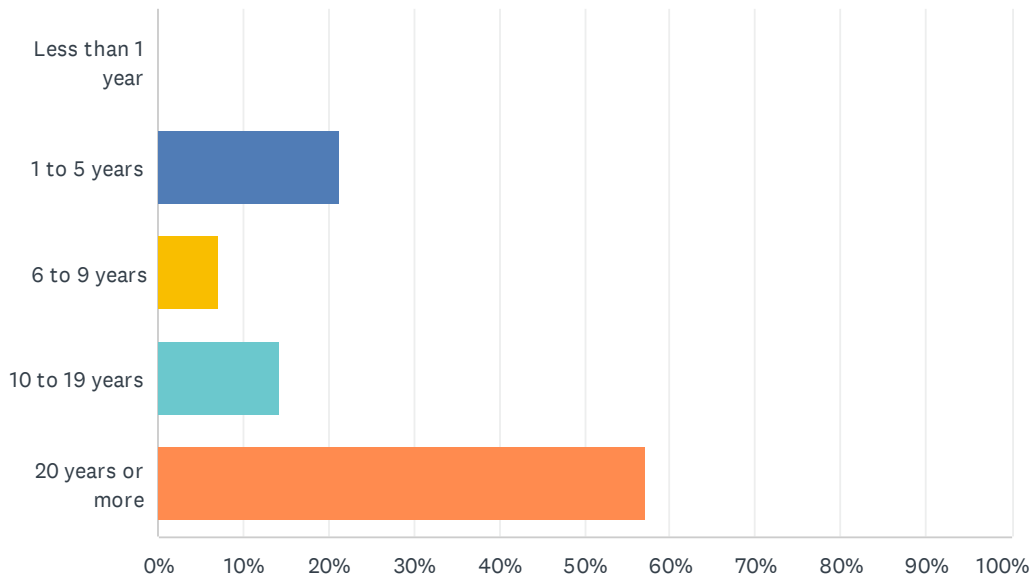


ANSWER CHOICES	RESPONSES
Alabama (T)	0.00% 0
Alexader (T)	0.00% 0
Alexander (V)	0.00% 0
Attica (V)	0.00% 0
Batavia (C)	21.43% 3
Batavia (T)	7.14% 1
Bergen (V)	0.00% 0
Bergen (T)	7.14% 1
Bethany (T)	7.14% 1
Byron (T)	7.14% 1
Corfu (V)	0.00% 0
Darien (T)	7.14% 1
Elba (T)	0.00% 0
Elba (V)	0.00% 0
Le Roy (T)	7.14% 1
Le Roy (V)	7.14% 1
Oakfield (V)	14.29% 2
Oakfield (T)	0.00% 0
Pavilion (T)	0.00% 0
Pembroke (T)	7.14% 1
Stafford (T)	0.00% 0
Other (please specify)	7.14% 1
Total Respondents: 14	

#	OTHER (PLEASE SPECIFY)	DATE
---	------------------------	------

Q18 How long have you lived here?

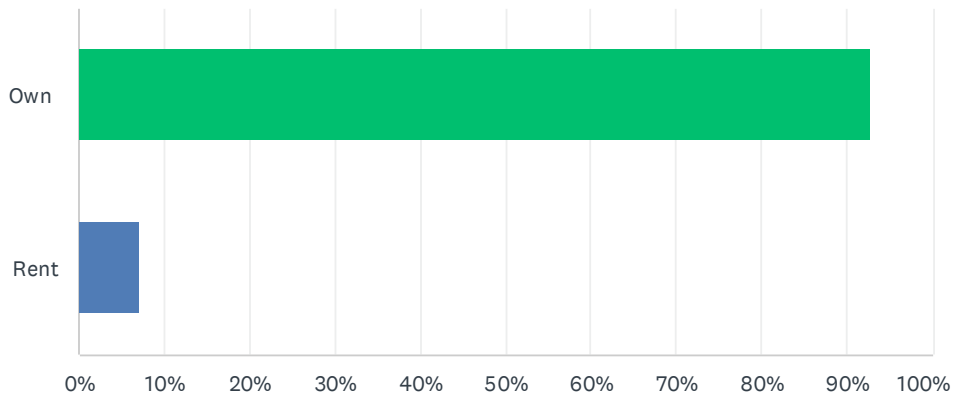
Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Less than 1 year	0.00%	0
1 to 5 years	21.43%	3
6 to 9 years	7.14%	1
10 to 19 years	14.29%	2
20 years or more	57.14%	8
TOTAL		14

Q19 Do you own or rent your place of residence?

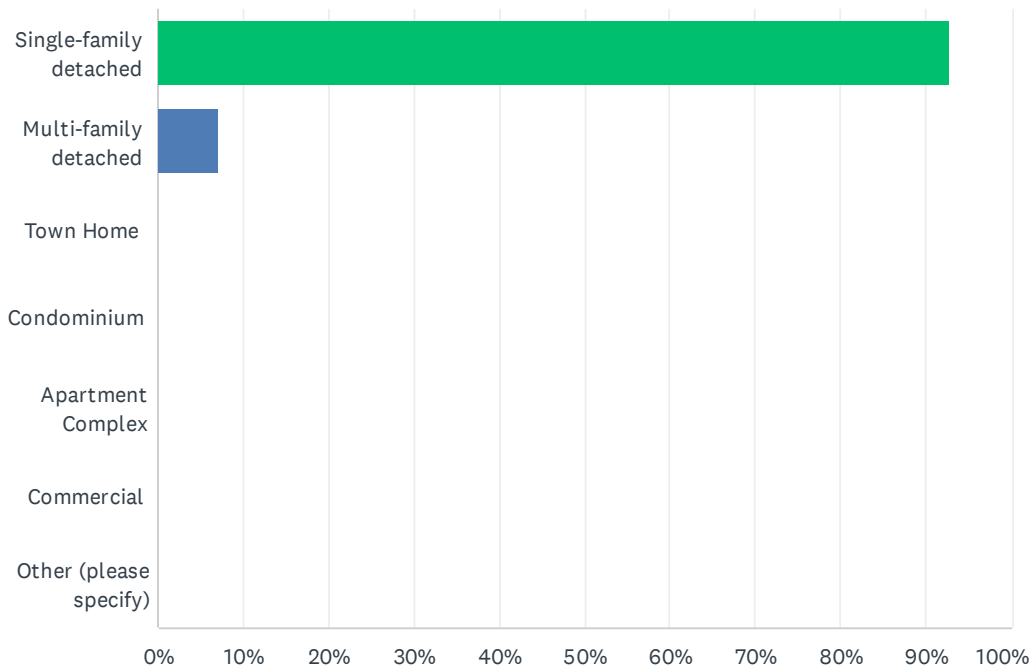
Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Own	92.86%	13
Rent	7.14%	1
TOTAL		14

Q20 What type of residence do you live in?

Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Single-family detached	92.86%	13
Multi-family detached	7.14%	1
Town Home	0.00%	0
Condominium	0.00%	0
Apartment Complex	0.00%	0
Commercial	0.00%	0
Other (please specify)	0.00%	0
TOTAL		14

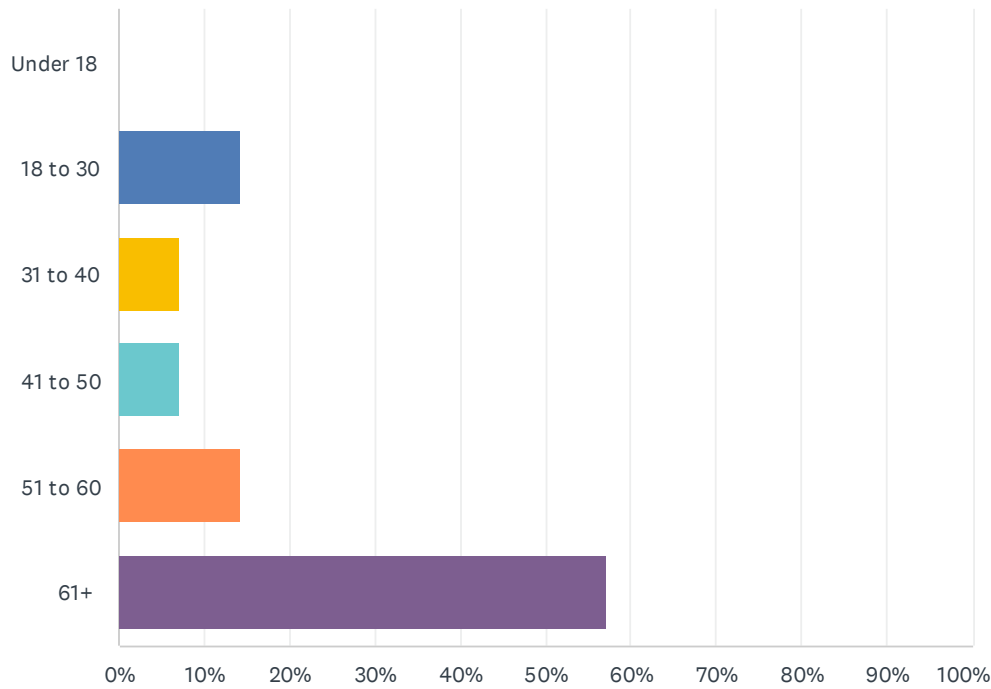
#	OTHER (PLEASE SPECIFY)	DATE
	There are no responses.	

Q21 What street is your property on? (optional, will be kept confidential - only used to identify hazard areas such as flood prone areas).

Answered: 10 Skipped: 5

Q22 Please indicate your age range:

Answered: 14 Skipped: 1



ANSWER CHOICES	RESPONSES	
Under 18	0.00%	0
18 to 30	14.29%	2
31 to 40	7.14%	1
41 to 50	7.14%	1
51 to 60	14.29%	2
61+	57.14%	8
TOTAL		14

APPENDIX D: PARTICIPTION MATRIX



The matrix in Appendix D is intended to give a broad overview of FEMA, New York State, County, municipal and stakeholder personnel that participated in the Genesee County HMP update planning process. Meeting attendees and input provided are also included. All participants were encouraged to attend the kick-off meeting, risk assessment meeting, and mitigation strategy workshop. Participants unable to attend a Steering Committee and Planning Partnership meeting were provided with access to meeting recordings and materials, as applicable. During the planning process the consultant contacted each participant to offer support, explain the process, and facilitate the submittal and review of critical documents.

Participation is defined as having input to the hazard analysis (providing critical facility, hazard event, vulnerability data), and as having participated in the mitigation workshop or alternate annex meetings as described in the HMP for the purpose of creating a mitigation strategy to be included in each jurisdictional annex in Volume II.



Participation Matrix

Jurisdiction	Name	Title	SC Member	PP Member	Primary Point of Contact	Secondary Point of Contact	NFIP FPA	SC Kick Off 110223	PP Kick Off 030724	SC RA 091824	PP RA 091824	SC/PP MSW 031825, Afternoon	SC/PP MSW 031825, Evening	Draft Plan Review, Afternoon 073025	Draft Plan Review, Evening 073025	Individual Jurisdictional Meeting
Genesee County Sheriff's Office	Frank Riccobono	Director of Emergency Communications	X	X					X	X		X		X		
Genesee County Public Health	David Bell	Public Health Emergency Preparedness Coordinator	X	X				X	X		X			X		X
Genesee County Emergency Management Services	Tim Yaeger	Coordinator	X	X	X			X	X	X	X	X	X	X		X
Genesee County Manager's Office	Matt Landers	County Manager	X	X					X							
Genesee County Planning Department	Felipe Oltramari	Director	X	X				X	X	X	X		X	X		X
Genesee County Planning Department	Julie Boasi	Senior Planner	X	X										X		
Genesee County Emergency Management Services	Gary Patnode	Deputy Coordinator	X	X		X		X	X	X	X	X	X	X		X
Genesee County Economic Development Corporation	Mark Masse	Senior VP of Operations	X	X					X	X				X		
Genesee County Manager's Office	Tammi Ferringer	Deputy County Manager	X	X				X	X	X		X		X		
Genesee County Sheriff's Office	Joseph Graff	Chief Deputy	X	X					X	X						



Participation Matrix

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Genesee County Sheriff's Office	Brian Frieday	Chief Deputy	X	X					X	X		X		X		
Genesee County Highway Department	Craig Smith	Deputy Highway Superintendent	X	X				X	X	X		X				
Genesee County Highway Department	Tim Hens	Highway Superintendent	X	X					X							
Genesee County Highway Department	Laura Wadhams	Assistant County Engineer	X	X				X	X					X		
Genesee County Emergency Management Services	Elizabeth Allen	Financial Management Assistant	X	X								X	X			X
Genesee County Legislature	Rochelle Stein	Chair	X	X				X			X	X				
Genesee County Department of Social Services/Youth Bureau	Carla Mindler	Commissioner	X	X				X				X		X		
Genesee County Public Health	Paul Pettit	Public Health Director	X	X						X						X
Town of Alabama	Robert Crossen	Supervisor		X	X									X		X
Town of Alabama	Jeffrey Covell	Highway Superintendent		X												
Town of Alabama	Mike Morris	Zoning/Code Enforcement Officer		X		X	X									
Town of Alexander	David Miller	Town Supervisor		X	X						X					
Town of Alexander	Shannon Tiede	Town Clerk		X												



Participation Matrix

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Town of Alexander	Brian Farnsworth	Highway Superintendent		X		X										
Town of Alexander	Ron Merrill	Town Board Member		X								X				
Town of Alexander	Matthew Mahaney	Code Enforcement Officer		X			X									
Village of Alexander	Danielle Riggs	Clerk Treasurer		X		X										
Village of Alexander	Daniel J. Lang	Building and Zoning Officer		X			X									
Village of Alexander	Troy Robbins	Superintendent Public Works		X												
Village of Alexander	Jason Breton	Mayor		X	X							X				
Village of Attica	Brenda J Beck	Administrator		X	X											X
Village of Attica	Nathan Montford	Mayor		X		X										
Village of Attica	Matthew Sage	Village Board Member		X			X									
City of Batavia	Joshua Graham	Fire Chief	X	X	X				X	X				X		
City of Batavia	Erik Fix	Assistant City Manager	X	X				X	X							
City of Batavia	Rachel Tabelski	City Manager	X	X		X		X			X					
City of Batavia	Doug Randall	Code Enforcement Officer	X	X												
City of Batavia	Brett Frank	Director	X	X												
City of Batavia	Zach Alwardt	Floodplain Manager	X	X			X									



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Town of Batavia	Gregory Post	Town Supervisor		X	X						X					
Town of Batavia	Marcy Crandall	Financial Clerk		X												
Town of Batavia	Steven Mountain	Town Engineer		X		X										
Town of Batavia	Daniel Lang	Code Enforcement Officer/ZEO/Fire Inspector		X			X									
Town of Batavia	Matthew Mahaney	Code Enforcement Officer/ZEO/Fire Inspector		X												
Town of Batavia	Raymond Tourt	Highway Superintendent		X							X		X			
Town of Bergen	Ernie Haywood	Town Supervisor		X	X											
Town of Bergen	Teresa Robinson	Town Clerk		X		X										
Town of Bergen	Gerald Wood	Zoning and Code Enforcement		X			X									
Town of Bergen	Joel Pocock	Highway Superintendent		X												
Town of Bergen	Joseph Chimino	Mayor		X					X			X				
Town of Bergen	Ralph Marsocci	Former Mayor		X								X				
Village of Bergen	Joseph Chimino	Mayor		X	X				X			X				
Village of Bergen	Cortney W. Gale	Administrator, Clerk		X		X										
Village of Bergen	Gary Cecere	Zoning and Code Enforcement		X			X					X				



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Town of Bethany	Carl Hyde Jr.	Town Supervisor		X	X											
Town of Bethany	Shauna Klump	Town Clerk		X		X										X
Town of Bethany	Gerry Wood	Code Enforcement Officer		X			X									
Town of Bethany	Barbara Czworka	Highway Superintendent		X												
Town of Byron	Candace Hensel	Town Supervisor		X	X									X		
Town of Byron	Kristy Murphy	Town Clerk		X		X										X
Town of Byron	Melissa Ierlan	Code Enforcement		X			X									
Town of Byron	David Leaton, Jr.	Highway Superintendent		X												
Village of Corfu	Thomas Sargent	Mayor		X	X											
Village of Corfu	Robin Johnson	Zoning/Code Enforcement Officer		X			X									
Village of Corfu	Jennifer Eck	Village Clerk		X		X										X
Town of Darien	Joe Kowalik	Building Inspector		X												
Town of Darien	Neil Marzolf, Jr.	Highway Superintendent		X												
Town of Darien	Jerome Yoder	Zoning/Code Enforcement Officer		X			X					X				
Town of Darien	Alice Calmes	Town Clerk / Tax Collector		X		X										
Town of Darien	Steve Ferry Jr.	Supervisor		X	X											



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Town of Elba	Dan Coughlin	Council Member		X					X		X					
Town of Elba	Donna Hynes	Supervisor		X	X											
Town of Elba	Trisha Werth	Town Clerk/Tax Collector		X		X										
Town of Elba	Mark Yungfleisch	Highway Superintendent		X												
Town of Elba	Mike Morris	Zoning/Code Enforcement Officer		X			X									
Village of Elba	Norm Itjen	Mayor		X	X							X				
Village of Elba	Jerah Augello	Village Clerk		X		X										X
Village of Elba	Mike Morris	Zoning/Code Enforcement Officer		X			X									
Village of Elba	Nick Brinkman	Public Works		X												
Town of LeRoy	Andrew Wilcox	Code Enforcement Officer		X												
Town of LeRoy	Mike Risewick	Code Enforcement Officer		X		X	X									X
Town of LeRoy	James Farnholz	Supervisor		X	X											X
Town of LeRoy	Patricia Canfield	Town Clerk		X												
Town of LeRoy	Eric Stauffer	Highway Superintendent		X												
Village of LeRoy	Gregory Rogers	Mayor		X												
Village of LeRoy	Greg Kellogg	Police Chief		X	X				X							



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Village of LeRoy	Jordan T. Wolcott	Village Police		X												
Village of LeRoy	Eileen Carmel	Village Clerk		X												
Village of LeRoy	Andrew Wilcox	Code Enforcement Officer		X												
Village of LeRoy	Mike Risewick	Code Enforcement Officer		X		X	X									
Village of LeRoy	Bill Kettle	Deputy Mayor		X					X							
Town of Oakfield	Matthew Martin	Supervisor		X	X											
Town of Oakfield	Melissa M. Haacke	Town Clerk		X		X										X
Town of Oakfield	Mike Shultz	Highway Superintendent		X												
Town of Oakfield	Mark A. Mikolajczyk	Zoning/Code Enforcement Officer		X			X									
Village of Oakfield	David Boyle	Mayor		X	X											
Village of Oakfield	Kimberly Staniszewski	Village Clerk		X												
Village of Oakfield	Tom Mikolajczyk	Public Works Supervisor		X												
Village of Oakfield	Mike Morris	Zoning/Code Enforcement Officer		X		X	X									X
Town of Pavilion	James Thater	Supervisor		X	X											
Town of Pavilion	Lucinda Starr	Town Clerk		X		X										X



Participation Matrix

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Town of Pavilion	James Cleveland	Highway Superintendent		X												
Town of Pavilion	Troy Williams	Zoning/Code Enforcement Officer		X			X									
Town of Pembroke	Thomas Schneider, Jr.	Supervisor		X	X											
Town of Pembroke	Nicole M. Begin	Town Clerk		X		X										
Town of Pembroke	Scott Turner	Highway Superintendent		X												
Town of Pembroke	James Wolbert	Code Enforcement Officer		X			X									
Town of Pembroke	Erik Long	Zoning Officer		X					X							
Town of Stafford	Robert S. Clement	Supervisor		X	X											
Town of Stafford	Gene Sinclair	Zoning/Code Enforcement Officer		X			X									
Town of Stafford	Barbara Radley	Town Clerk		X		X										X
Town of Stafford	Steve Boldt	Highway Superintendent		X												
Alexander School District	Tim Batzel	Superintendent		X	X											
Batavia City School District	Chad Bliss	Director of Facilities		X		X			X							
Batavia City School District	Jason Smith	Superintendent		X	X											



Participation Matrix

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Byron Bergen School District	Patrick McGee	Superintendent		X	X											
Elba CSD	Gretchen Rosales	Superintendent		X	X											
LeRoy School District	Merritt Holly	Superintendent		X	X											
Oakfield/Alabama CSD	Jordan Yager	Director of Facilities		X		X			X							
Oakfield/Alabama CSD	John C. Figus	Superintendent		X	X				X							
Pavilion School District	Mary Kate Hoffman	Superintendent		X	X				X							
Pembroke School District	Matthew Calderon	Superintendent		X	X											
Tonawanda Seneca Nation	Christine Abrams	Administrator		X	X				X				X			
Erie County Water Authority	Leonard F. Kowalski	Executive Engineer		X	X											
Erie County Water Authority	Sabrina A. Figler	Director of Water Quality		X		X										
Monroe County Water Authority	Brad Smith	Coordinator of Water Systems Emergency Response		X	X				X							
Monroe County Water Authority	Steve Savage	Director of Engineering		X		X			X							
Genesee County Soil and Water Conservation District	Jared Elliott	District Field Manager	X	X	X			X		X				X		
Genesee County Soil and Water Conservation District	Laura Bestehorn	Clerk/Treasurer	X	X		X										



Notes:

SC = Steering Committee

PP = Planning Partnership

RA = Risk Assessment

MSW = Mitigation Strategy Workshop

APPENDIX E: ACTION WORKSHEET TEMPLATE



This appendix includes the instructions and template provided for the development of Mitigation Strategy Action Worksheets. These worksheets are included in each jurisdictional annex of the plan in compliance with NYS DHSES Mitigation Guidance.

Action Name:			
Lead Agency:			
Supporting Agencies:			
Hazard(s) of Concern:	<input type="checkbox"/> Civil Unrest <input type="checkbox"/> Dam Failure <input type="checkbox"/> Drought <input type="checkbox"/> Earthquake <input type="checkbox"/> Epidemic <input type="checkbox"/> Extreme Temperature <input type="checkbox"/> Flood	<input type="checkbox"/> Hazardous Materials <input type="checkbox"/> Severe Storm <input type="checkbox"/> Severe Winter Storm <input type="checkbox"/> Terrorism <input type="checkbox"/> Transportation Accidents <input type="checkbox"/> Utility Interruption <input type="checkbox"/> Wildfire	
Description of the Problem:			
Description of the Solution:			
Estimated Cost:			
Potential Funding Sources:			
Implementation Timeline:			
Goals Met:			
Benefits:			
Impact on Socially Vulnerable Populations:			
Impact on Future Development:			
Impact on Critical Facilities/Lifelines:			
Impact on Capabilities:			
Climate Change Considerations:			
Mitigation Category	<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	<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)	
Priority	<input type="checkbox"/> High	<input type="checkbox"/> Medium	<input type="checkbox"/> Low
Alternatives:	Action	Evaluation	
	No Action	Current problem continues	

Guidance to Complete the Mitigation Action Worksheet

The following provides additional guidance on how to complete the Mitigation Action Worksheet. Please note that NYS DHSES requires a minimum of two proposed mitigation activities.

Action Worksheet

Action Name: Each action must have a unique project number referenced here and in the Action Tables.



Lead Agency: Identify the name of a department or agency responsible for implementation, not the jurisdiction.

Supporting Agencies: Identify the name of any departments or agencies which will support the efforts of the lead agency.

Hazard(s) of Concern: Please identify the hazard(s) being addressed with this action. The Hazards of Concern included in the Genesee County Hazard Mitigation Plan include:

- Civil Unrest
- Dam Failure
- Drought
- Earthquake
- Epidemic
- Extreme Temperature
- Flood
- Hazardous Materials
- Severe Storm
- Severe Winter Storm
- Terrorism
- Transportation Accidents
- Utility Interruption
- Wildfire

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

Description of the Solution: Provide a detailed narrative of the solution. Describe the physical area (project limits) to be affected, both by direct work and by the project's effects; how the action would address the existing conditions previously identified; proposed construction methods, including any excavation and earth-moving activities; where you are in the development process (e.g., are studies and/or drawings complete), etc., the extent of any analyses or studies performed (attach any reports or studies).

Estimated Cost: Provide an estimated cost for implementation; rough dollar figures are preferred, but if unknown, a specified range is acceptable. Consider all costs associated with implementation. (Low <\$10,000, Medium \$10,000-\$100,000, High >\$100,000).

Potential Funding Source(s): Multiple sources of potential funding should be listed when appropriate.

Estimated Time Required for Project Implementation: Provide the estimated time required to complete the project from start to end. (Short-term, Long-term, or On-going/Continuous)



Goals Met:

- Goal 1: Reduce the likelihood and impacts of hazards on life, property, and the environment.
- Goal 2: Protect life, property, critical infrastructure, the environment, and the economy from the impacts of natural, technological, and human-caused disasters.
- Goal 3: Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.
- Goal 4: Reduce the risk of natural, technological, and human-caused hazards for socially vulnerable populations.
- Goal 5: Address long-term vulnerabilities from hazardous dams.

Benefits: 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.

Impact on Socially Vulnerable Populations: Provide a narrative on how this action will impact socially vulnerable populations within the jurisdiction and other impacted areas. These impacts can be positive or negative.

Impact on Future Development: Provide a narrative on how this action will impact future development within the jurisdiction and other impacted areas. These impacts can be positive or negative.

Impact on Critical Facilities/Lifelines: Provide a narrative on how this action will impact critical facilities and community lifelines within the jurisdiction and other impacted areas. These impacts can be positive or negative.

Impact on Capabilities: Provide a narrative on how this action will impact capabilities within the jurisdiction and other impacted areas. These impacts can be positive or negative.

Climate Change Considerations: Provide a brief narrative on how climate change may exacerbate conditions which could impact this action.

Mitigation Action Type:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

CRS Category:

- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of



the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.

- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities

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

Actions/Projects Considered: Please consider three different options to mitigate the problem identified. One alternative is always to accept the current level or risk (tolerate the vulnerability/problem) by deciding to take no action at this time. If you choose to take no action, please complete the worksheet up to and including this section and this will be noted in the Plan.

Please include the name of the action considered and a brief reason as to why the action was not selected. The reasoning documents the consideration of these alternatives.

Guidance to Complete the Prioritization Table

Complete this table to help evaluate and prioritize each mitigation action being considered by your municipality. Please use these 14 criteria to assist in evaluating and prioritizing new mitigation actions identified. Specifically, for each new mitigation action, assign a numeric rank (-1, 0, or 1) for each of the 14 evaluation criteria in the provided table, defined as follows:

- 1 = Highly effective or feasible
- 0 = Neutral
- -1 = Ineffective or not feasible

Use the numerical results of this exercise to help prioritize your actions as “Low”, “Medium” or “High” priority. Your municipality may recognize other factors or considerations that affect your overall prioritization; these should be identified in narrative in the Priority field of the worksheet. The 14 evaluation/prioritization criteria are:

1. Life Safety—How effective will the action be at protecting lives and preventing injuries? Will the proposed action adversely affect one segment of the population?
2. Property Protection—How significant will the action be at eliminating or reducing damage to structures and infrastructure?
3. Cost-Effectiveness—Are the costs to implement the action commensurate with the benefits achieved?



4. Political—Is there overall public support for the action? Is there political will to support it? Is the action at odds with development pressures?
5. Legal—Does the jurisdiction have the authority to implement the action?
6. Fiscal—Is funding for the action available under existing program budgets or would it require a new budget authorization or funding from another source, such as grants?
7. Environmental—What are the potential environmental impacts of the action? Will it comply with environmental regulations? Are there co-benefits of this action?
8. Social Vulnerability—Does the action benefit socially vulnerable populations and underserved communities?
9. Administrative—Does the jurisdiction have the staff and administrative capabilities to implement the action and maintain it or will outside help be necessary? Does the scale and scope of the action align with the jurisdiction's capabilities?
10. Hazards of Concern—Does the action address one or more of the jurisdiction's high-ranked hazards?
11. Climate Change—Does the action incorporate climate change projections? Is the action designed to withstand or address long-term conditions?
12. Timeline—Can the action be completed in less than five years?
13. Community Lifelines—Does the action benefit community lifelines?
14. Other Local Objectives—Does the action advance other local objectives, such as capital improvements, economic development, environmental quality, or open space preservation? Does it support the policies of other plans and programs?

APPENDIX F: PLAN MAINTENANCE TOOLS

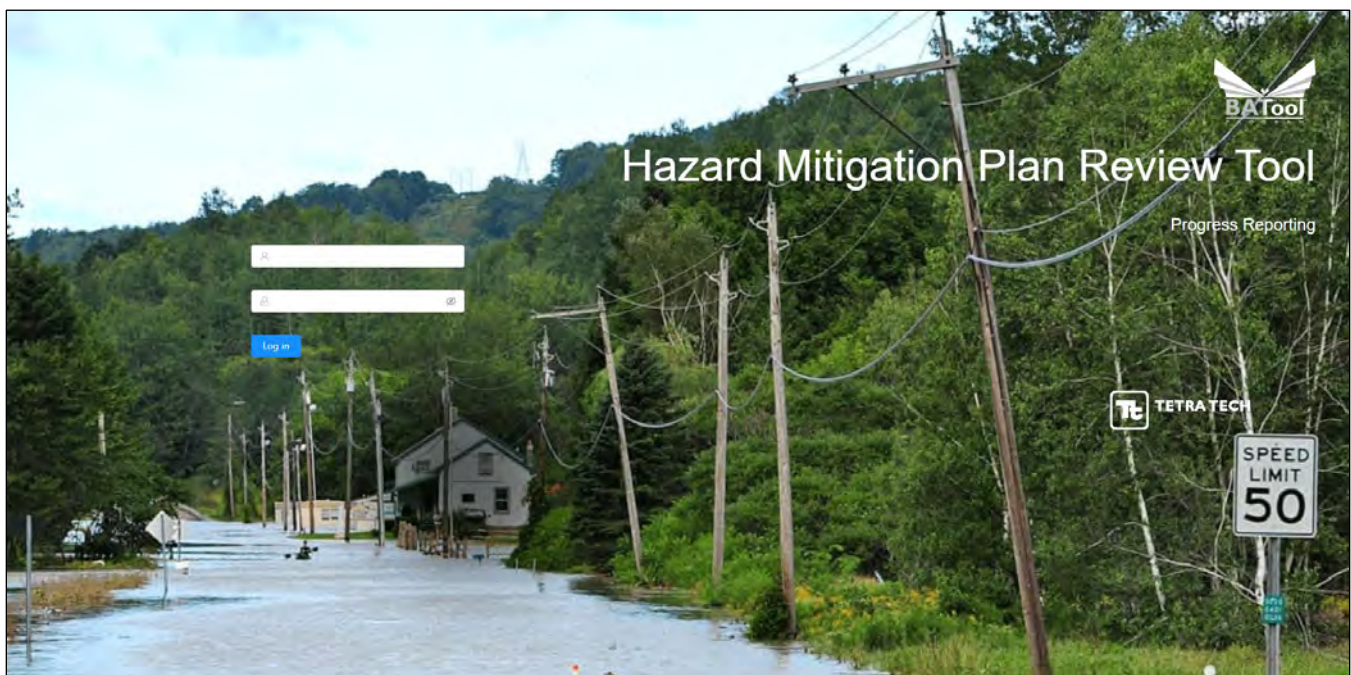


This appendix includes tools and worksheets to facilitate plan maintenance and review by the Genesee County Steering Committee and Planning Partnership.

In the first year of the performance period, an online performance progress reporting system, the BAToolSM will provide municipal and county representatives direct access to their mitigation initiatives to easily update the status of each project, document successes or obstacles to implementation, add or delete projects to maintain mitigation project implementation. This online program will capture information and roll all input into a report to summarize mitigation strategy progress.



Figure F-1. BAToolSM Screenshot



The FEMA 386-4 guidance worksheets are also available to assist with progress reporting. These worksheets are provided in this section for ease of access to the HMP Coordinator and Planning Partnership to maintain the 2025 HMP throughout its period of performance.

**Worksheet #1****Progress Report****step 2***Page 1 of 3*

Progress Report Period: _____ to _____
(date) (date)

Project Title: _____ Project ID#: _____

Responsible Agency: _____

Address: _____

City/County: _____

Contact Person: _____ Title: _____

Phone #(s): _____ email address: _____

List Supporting Agencies and Contacts:

Total Project Cost: _____

Anticipated Cost Overrun/Underrun: _____

Date of Project Approval: _____ Start date of the project: _____

Anticipated completion date: _____

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase): _____

Milestones	Complete	Projected Date of Completion

**Plan Goal(s)/Objective(s) Addressed:**

Goal: _____

Objective: _____

Indicator of Success (e.g., losses avoided as a result of the acquisition program):

In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.

Status (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status☐ Project on schedule☐ Project completed☐ Project delayed*

*explain: _____

☐ Project canceled**Project Cost Status**☐ Cost unchanged☐ Cost overrun*

*explain: _____

☐ Cost underrun*

*explain: _____

Summary of progress on project for this report:

A. What was accomplished during this reporting period?

B. What obstacles, problems, or delays did you encounter, if any?

C. How was each problem resolved?





Next Steps: What is/are the next step(s) to be accomplished over the next reporting period?

Other comments:

Adapted from the North Carolina HMGP Progress Report Form at http://www.dem.dcc.state.nc.us/mitigation/document_index.htm.



Worksheet #2 Evaluate Your Planning Team **step 3**

When gearing up for the plan evaluation, the planning team should reassess its composition and ask the following questions:

	YES	NO
Have there been local staffing changes that would warrant inviting different members to the planning team?		
Comments/Proposed Action:		
Are there organizations that have been invaluable to the planning process or to project implementation that should be represented on the planning team?		
Comments/Proposed Action:		
Are there any representatives of essential organizations who have not fully participated in the planning and implementation of actions? If so, can someone else from this organization commit to the planning team?		
Comments/Proposed Action:		
Are there procedures (e.g., signing of MOAs, commenting on submitted progress reports, distributing meeting minutes, etc.) that can be done more efficiently?		
Comments/Proposed Action:		
Are there ways to gain more diverse and widespread cooperation?		
Comments/Proposed Action:		
Are there different or additional resources (financial, technical, and human) that are now available for mitigation planning?		
Comments/Proposed Action:		

If the planning team determines the answer to any of these questions is "yes," some changes may be necessary.

**Worksheet #3 Evaluate Your Project Results****step 3**

page 1 of 2

Project Name and Number: _____

Project Budget: _____

Project Description: _____

Associated Goal and Objective(s): _____

Indicator of Success (e.g., losses avoided): _____

*Insert location map.
Include before and after
photos if appropriate.*

Was the action implemented? ☐ YES ☐ NOIF **NO****Why not?**

Was there political support for the action?

Were enough funds available?

Were workloads equitably or realistically distributed?

Was new information discovered about the risks or community that made implementation difficult or no longer sensible?

Was the estimated time of implementation reasonable?

Were sufficient resources (for example staff and technical assistance) available?

YES NO

☐ ☐☐ ☐☐ ☐☐ ☐☐ ☐☐ ☐IF **YES**

What were the results of the implemented action? _____



page 2 of 2

	YES	NO
Were the outcomes as expected? If No, please explain:		
Did the results achieve the goal and objective(s)? Explain how:		
Was the action cost-effective? Explain how or how not:		
What were the losses avoided after having completed the project?		
If it was a structural project, how did it change the hazard profile?		
Additional comments or other outcomes:		

Date: _____

Prepared by: _____

**Worksheet #4 Revisit Your Risk Assessment step 4**

Risk Assessment Steps	Questions	YES	NO	COMMENTS
Identify hazards	Are there new hazards that can affect your community?			
Profile hazard events	Are new historical records available?			
	Are additional maps or new hazard studies available?			
	Have chances of future events (along with their magnitude, extent, etc.) changed?			
	Have recent and future development in the community been checked for their effect on hazard areas?			
Inventory assets	Have inventories of existing structures in hazard areas been updated?			
	Is future land development accounted for in the inventories?			
	Are there any new special high-risk populations?			
Estimate losses	Have loss estimates been updated to account for recent changes?			

If you answered "Yes" to any of the above questions, review your data and update your risk assessment information accordingly.

**Worksheet #5****Revise the Plan****step 4**

page 1 of 4

Prepare to update the plan.*When preparing to update the plan:**Check the box when addressed:*

1. Gather information, including project evaluation worksheets, progress reports, studies, related plans, etc.	
Comments:	
2. Reconvene the planning team, making changes to the team composition as necessary (see results from Worksheet #2).	
Comments:	

Consider the results of the evaluation and new strategies for the future.*When examining the community consider:**Check the box when addressed:*

1. The results of the planning and outreach efforts.	
Comments:	
2. The results of the mitigation efforts.	
Comments:	



page 2 of 4

3. Shifts in development trends.	
Comments:	
4. Areas affected by recent disasters.	
Comments:	
5. The recent magnitude, location, and type of the most recent hazard or disaster.	
Comments:	
6. New studies or technologies.	
Comments:	
7. Changes in local, state, or federal laws, policies, plans, priorities, or funding.	
Comments:	



page 3 of 4

8. Changes in the socioeconomic fabric of the community.	
Comments:	
9. Other changing conditions.	
Comments:	

Incorporate your findings into the plan.

When examining the plan consider:

Check the box when addressed:

1. Revisit the risk assessment. (See Worksheet #4)	
Comments:	
2. Update your goals and strategies.	
Comments:	
3. Recalculate benefit-cost analyses of projects to prioritize action items.	
Comments:	



Use the following criteria to evaluate the plan:

Criteria	YES	NO	Solution
Are the goals still applicable?			
Have any changes in the state or community made the goals obsolete or irrelevant?			
Do existing actions need to be reprioritized for implementation?			
Do the plan's priorities correspond with state priorities?			
Can actions be implemented with available resources?			

Comments:

APPENDIX G: CRITICAL FACILITY INVENTORY



Due to the sensitive nature of this information, details of critical facilities have been redacted for the public document. A full list of critical facilities identified for the vulnerability analysis is available at the Genesee County Office of Emergency Management. Contact Timothy Yaeger (tim.yaeger@geneseeny.gov) to request the list.

APPENDIX H: RISK ASSESSMENT SUPPLEMENTARY DATA



Risk Assessment Supplementary Data This appendix contains information and details to support information provided in Chapters 6 through 19 (Hazard Profiles).

HISTORY OF HAZARD EVENTS WITHIN THE COUNTY

To supplement the information provided in this plan, events prior to the update of this plan are included below by hazard of concern type. Many sources provided historical information regarding previous occurrences and losses associated with hazards throughout New York and Genesee County. It is noted that, with a number of sources reviewed for the purpose of this HMP, loss and impact information for many events could vary depending on the sources.

For more information on past events and impacts, refer to the 2019 Genesee County Hazard Mitigation Plan.

Civil Unrest

Known civil unrest events that have impacted Genesee County between 2008 and 2017 are identified in Table H-1. Many sources were researched for historical information regarding civil unrest events in Genesee County; therefore, Table H-1 may not include all civil unrest events that have impacted the County.

Table H-1. Civil Unrest Events in Genesee County Between 2008 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
April 13, 2012	Protest	N/A	No	Protesters spoke out against an unfair labor practice from the PepsiCo Project Wave site in Batavia. The protesters accused PepsiCo and Project Wave of taking millions in taxpayer dollars through tax incentives, while giving nothing back to the local community by finding labor workers from other states and regions to work on the project.
January 12, 2014	Protest	N/A	No	"The Shot Heard Round New York" was an organized protest in opposition to New York State's SAFE Act. The protest involved gun owners gathering at gun clubs around the state and firing a single shot at noon. In Genesee, the protest occurred at the Northwoods Sportsman Club on Gulf Road in LeRoy.
January 18, 2014	Protest	N/A	No	Over 100 gun-rights advocates protested the SAFE Act at the New York State Police barracks in the Town of Batavia. The protest was amplified by comments from Governor Cuomo that seemed to belittle the protestors.
April 8, 2017	Protest	N/A	No	About 40 members from Citizens against Collins, GLOW Progressives, Le Roy Voices for Change, Metro Justice, and Stronger Together WNY gathered to protest "Coffee with Collins." This was a fundraiser held by Congressman Chris Collins at Miss Batavia Diner in the City of Batavia, in which



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				tickets to the event were \$55 each. Protesters were angered that they had tried to meet with the Congressman to discuss numerous issues and that he has shown a lack of interest in hosting an open Town Hall meeting. The protesters saw this fundraiser as "Pay to Play."

Sources: *The Batavian 2014; ALIGN 2012; WBTA, Rochester First 2017*

Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

Dam Failure

There have been no known dam failure events which have impacted Genesee County between 2006 and 2017.

Drought

Known drought events that have impacted Genesee County between 2000 and 2017 are identified in Table H-2. Many sources were researched for historical information regarding drought events in Genesee County; therefore, Table H-2 may not include all drought events that have impacted the County.

Table H-1. Drought Events in Genesee County Between 2000 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 2001	Drought	N/A	N/A	20 percent of the County experienced abnormally dry conditions.
May - June 2001	Drought	N/A	N/A	The County experienced a moderate drought. In June, the County experienced over \$22,000 in crop losses associated with the drought conditions.
July - December 2001	Drought	N/A	N/A	The County experienced a period of sustained drought. At its peak (August-September), the entire County experienced a severe drought. Between July and August, the County experienced over \$12,000 in crop losses associated with the drought conditions.
January - February 2002	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions.
June-August 2002	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions. During this time, the County experienced over \$195,000 in crop losses associated with this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
September 2002	Drought	N/A	N/A	The County experienced a period of sustained drought. At its peak, 30 percent of the County was in a moderate drought, and the rest of the County experienced abnormally dry conditions. Approximately \$1,830 in crop losses are associated with this event.
April - June 2003	Drought	N/A	N/A	The County experienced a period of sustained drought. At its peak (May), 98 percent of the County experienced abnormally dry conditions.
May - June 2005	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions. This event led to over \$118,000 in crop losses.
July - September 2005	Drought	N/A	N/A	The County experienced a period of sustained drought. At its peak (August), 13 percent of the County was in a moderate drought, and the rest of the County experienced abnormally dry conditions. This event led to over \$149,000 in crop losses.
May - September 2006	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions. Overall, the County had over \$209,000 in crop losses associated with this event.
June - November 2007	Drought	N/A	N/A	The County experienced a period of sustained drought. At its worst (September) the entire County was in a severe drought.
June 2008	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions.
May - June 2009	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions.
April - May 2010	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions.
June 2010	Drought	N/A	N/A	The entire County experienced a period of abnormally dry conditions.
July - October 2011	Drought	N/A	N/A	The County experienced a period of sustained drought. At its worst (August), the entire County was in a moderate drought. Between June and July, the County had over \$215,000 in crop losses.
May - October 2012	Drought	N/A	N/A	The County experienced a period of sustained drought. At its worst (July-September 2012), the entire County was in a moderate drought.
October 2013	Drought	N/A	N/A	17 percent of the County experienced abnormally dry conditions.
December 2014 - July 2015	Drought	N/A	N/A	The County experienced a period of sustained drought. At its peak (May-June 2015), the entire County was in abnormally dry conditions.
December 2015 - February 2016	Drought	N/A	N/A	The County experienced a period of sustained drought. 94 percent of the County was in



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				abnormally dry conditions, with the remaining 6 percent in a moderate drought.
April 2016 - March 2017	Drought	N/A	N/A	The County experienced a period of sustained drought. At its worst (August-September 2016), 95 percent of the County was in an extreme drought, with the remaining 5 percent in a severe drought.
October 2017	Drought	N/A	N/A	Up to 19 percent of the County experienced abnormally dry conditions.

Sources: U.S. Drought Monitor 2017; USDA 2018

Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

N/A Not applicable

USDA U.S. Department of Agriculture

RMA Risk Management Agency

Earthquake

Known earthquake events that have impacted Genesee County between 1857 and 2017 are identified in Table H-3. Many sources were researched for historical information regarding earthquake events in Genesee County; therefore, Table H-3 may not include all earthquake events that have impacted the County.

Table H-1. Earthquake Events in Genesee County Between 1972 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
September 22, 2007	Earthquake	N/A	N/A	M1.6 in Indian Falls, New York. No damages reported.
May 12, 2008	Earthquake	N/A	N/A	M2.2 in Alexander, New York. No damages reported.
May 10, 2009	Earthquake	N/A	N/A	M2.0 in LeRoy, New York. No damages reported.

Sources: FEMA 2017; USGS 2017

FEMA Federal Emergency Management Agency

N/A Not Applicable

USGS U.S. Geological Survey

Epidemic

Known epidemic events that have impacted Genesee County between 1900 and 2017 are identified in Table H-4. Many sources were researched for historical information regarding epidemic events in Genesee County; therefore, Table H-4 may not include all epidemic events that have impacted the County.



Table H-1. Epidemic Events in Genesee County Between 1900 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
1901	Scarlet Fever	N/A	N/A	East Pembroke School closed due to an outbreak of Scarlet Fever.
Oct. 1911	Diphtheria	N/A	N/A	First case of diphtheria discovered in Genesee County; outbreak swept through Batavia. Batavia Opera House and local schools closed to avoid the spread of disease.
Feb. 1913	Measles	N/A	N/A	Measles outbreak caused the high school in Bergen to be shut down for several days.
Autumn 1918	Spanish influenza	N/A	N/A	The worldwide Spanish influenza outbreak struck Genesee County. Schools were closed; civic gatherings and church services canceled; and theatres, restaurants, bars, ice cream parlors, and billiard halls were shut down. By mid-October, about 250 cases were reported in Le Roy alone. In Batavia, a total of 397 cases were reported to the Health Officer. By January 1919, the disease had abated, but it continued to occur in increasingly less lethal waves into the early 1920s.
June 1926	Smallpox	N/A	N/A	Two cases of smallpox were reported.
Sept. 1939	Polio	N/A	N/A	51 polio cases were reported in the County. Some families were quarantined, and complaints were registered about not enough precautions being taken.
May 1949	Tuberculosis	N/A	N/A	14 cases of tuberculosis were discovered; the Veteran's Hospital was converted into a tuberculosis institution in April 1950
Dec. 1957	Asian Flu	N/A	N/A	Asian Flu struck the county, filling hospitals and setting off a rush to obtain the flu vaccine.
May-November 2000	West Nile Virus	EM-3155	Yes	West Nile Virus threat; resulted in a FEMA declaration (EM-3155). Genesee County was included in this declaration.
2009	Swine Flu	N/A	N/A	Multiple cases of swine flu (H1N1) were confirmed in New York State. New York State Governor Paterson declared a state of emergency. Numerous schools in the state were closed due to the large amount of students and staff infected with the flu.

Sources: Genesee County 2008; NYSDOH 2009

Extreme Temperature

Known extreme temperature events that have impacted Genesee County between 2007 and 2017 are identified in Table H-5. Many sources were researched for historical information regarding extreme temperature events in Genesee County; therefore, Table H-5 may not include all extreme temperature events that have impacted the County.



Table H-1. Extreme Temperature Events in Genesee County Between 2007 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 26, 2007	Cold Temperatures	No	N/A	Maximum low temperature of -2°F was recorded at Batavia
February 5, 2007	Cold Temperatures	No	N/A	Maximum low temperature of -2°F was recorded at Batavia
February 15, 2007	Cold Temperatures	No	N/A	Maximum low temperature of -3°F was recorded at Batavia
March 6, 2007	Cold Temperatures	No	N/A	Maximum low temperature of -3°F was recorded at Batavia
June 26-28, 2007	Warm Temperatures	No	N/A	Maximum high temperatures of reached 90°F at Batavia
July 9–11, 2007	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 91°F at Batavia
August 1–4, 2007	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 93°F at Batavia
September 6–8, 2007	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 92°F at Batavia
January 3, 2008	Cold Temperatures	No	N/A	Maximum low temperature of 0°F was recorded at Batavia
February 11, 2008	Cold Temperatures	No	N/A	Maximum low temperature of 0°F was recorded at Batavia
January 14, 2009	Cold Temperatures	No	N/A	Maximum low temperature of -1°F was recorded at Batavia
January 15, 2009	Cold Temperatures	No	N/A	Maximum low temperature of 0°F was recorded at Batavia
January 17, 2009	Cold Temperatures	No	N/A	Maximum low temperature of -1°F was recorded at Batavia
February 5, 2009	Cold Temperatures	No	N/A	Maximum low temperature of -3°F was recorded at Batavia
January 30–31, 2009	Cold Temperatures	No	N/A	Maximum lows of between -5°F and 0°F were recorded at the Batavia weather station.
July 5–9, 2010	Warm Temperatures	No	N/A	For five days, the maximum high at the Batavia weather station was over 90°F. Temperatures ranged from 90°F on July 5th to 93°F on July 8th.
January 23–24, 2011	Cold Temperatures	No	N/A	Maximum lows of between -11°F and -2°F were recorded at the Batavia weather station.
July 11, 2011	Warm Temperatures	No	N/A	Maximum high temperature of 91°F was recorded at Batavia
July 20–23, 2011	Warm Temperatures	No	N/A	The County experienced four days of above 90°F temperatures.
June 21, 2012	Warm Temperatures	No	N/A	Maximum high temperature of 90°F was recorded at Batavia



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 6–8, 2012	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 92°F were recorded at Batavia
July 12–14, 2012	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 92°F were recorded at Batavia
July 17–18, 2012	Warm Temperatures	No	N/A	Maximum high temperatures reached 92°F
July 23–24, 2012	Warm Temperatures	No	N/A	Maximum high temperatures reached 90°F
August 4–5, 2012	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 91°F to 92°F were recorded at Batavia
July 14–20, 2013	Warm Temperatures	No	N/A	Maximum high temperatures ranged from 90°F to 92°F were recorded at Batavia
December 17, 2013	Cold Temperatures	No	N/A	A maximum low temperature of -2°F was recorded at Batavia
January 2–4, 2014	Extreme Cold			An arctic air mass brought extremely cold air to the region. Overnight temperatures were around zero while daytime highs could only reach the single digits on the 3rd. The temperatures combined with winds of 10 to 20 mph produced wind chills around -20°F. In Genesee County, maximum lows ranged from -2°F to -1°F. In the Town of Byron, a 71-year-old woman wandered outdoors from her home after waking in the middle of the night. The woman's body was found frozen later that morning about 100 yards from her home.
January 7–8, 2014	Cold Temperatures	No	N/A	A maximum low temperature of -7°F was recorded at Batavia
January 21–24, 2014	Cold Temperatures	No	N/A	Maximum low temperatures ranged from -9°F to 0°F
January 28–29, 2014	Cold Temperatures	No	N/A	Maximum low temperatures ranged from -3°F to -2°F
February 12, 2014	Cold Temperatures	No	N/A	A maximum low temperature of -7°F was recorded at Batavia
February 17, 2014	Cold Temperatures	No	N/A	A maximum low temperature of 0°F was recorded at Batavia
February 28, 2014	Cold Temperatures	No	N/A	A maximum low temperature of -4°F was recorded at Batavia
March 4, 2014	Cold Temperatures	No	N/A	A maximum low temperature of -2°F was recorded at Batavia
March 6, 2014	Cold Temperatures	No	N/A	A maximum low temperature of -3°F was recorded at Batavia
January 8, 2015	Cold Temperatures	No	N/A	A maximum low temperature of 0°F was recorded at Batavia
January 13–14, 2015	Cold Temperatures	No	N/A	Maximum low temperatures between -6°F and -4°F were recorded in Batavia



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 17, 2015	Cold Temperatures	No	N/A	A maximum low temperature of -4°F was recorded at Batavia
February 13, 2015	Cold Temperatures	No	N/A	A maximum low temperature of -5°F was recorded at Batavia
February 15-28, 2015	Cold Temperatures	No	N/A	Maximum low temperatures between -11°F and 0°F were recorded in Batavia
March 1, 2015	Cold Temperatures	No	N/A	A maximum low temperature of 0°F was recorded at Batavia
March 6, 2015	Cold Temperatures	No	N/A	A maximum low temperature of -1°F was recorded at Batavia
May 10, 2015	Warm Temperatures	No	N/A	A maximum high of 91°F was recorded at Batavia
July 29–30, 2015	Warm Temperatures	No	N/A	A maximum high of 91°F was recorded both days at Batavia
July 30, 2015	Warm Temperatures	No	N/A	A maximum high of 91°F was recorded at Batavia
September 8, 2015	Warm Temperatures	No	N/A	A maximum high of 91°F was recorded at Batavia
September 9, 2015	Warm Temperatures	No	N/A	A maximum high of 90°F was recorded at Batavia
February 13–15, 2016	Warm Temperatures	No	N/A	Maximum lows ranged from -15°F to -3°F at Batavia
May 28–29 2016	Warm Temperatures	No	N/A	Maximum highs ranged from 90°F to 91°F at Batavia
June 26–27, 2016	Warm Temperatures	No	N/A	A maximum high of 92°F was recorded both days at Batavia
July 7, 2016	Warm Temperatures	No	N/A	A maximum high of 90°F was recorded both days at Batavia
July 9, 2016	Heat	No	N/A	A maximum high of 94°F was recorded at the Batavia weather station
July 12–14, 2016	Warm Temperatures	No	N/A	Maximum highs ranged from 90°F to 92°F at Batavia
August 4–6, 2016	Warm Temperatures	No	N/A	A maximum high of 91°F was recorded all three days at Batavia
August 10–13, 2016	Warm Temperatures	No	N/A	Maximum highs ranged from 90°F to 92°F at Batavia

Sources: NYS DHSES 2014; FEMA 2016; NWS 2016; NOAA-NCEI 2016; USDA 2016; MRCC 2017

FEMA Federal Emergency Management Agency
 NOAA-NCEI National Oceanic Atmospheric Administration–National Centers for Environmental Information
 NWS National Weather Service
 NYSDHSES New York State Department of Homeland Security and Emergency Services
 N/A Not Applicable
 USDA U.S. Department of Agriculture



Flood

Known flood events that have impacted Genesee County between 2006 and 2017 are identified in Table H-6. Many sources were researched for historical information regarding flood events in Genesee County; therefore, Table H-6 may not include all flood events that have impacted the County.

Table H-1. Flood Events in Genesee County Between 2006 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 15-16, 2007	Heavy Rain, Snowmelt, and Flood	N/A	N/A	Saturated ground, snowmelt from warm weather, and additional rainfall resulted in ideal conditions for flooding. Thirteen of the area river and creek forecast points exceeded flood stage. In Genesee County, Tonawanda Creek flooded the southern part of the City of Batavia, closing several roads. The Creek crested at 11.9 feet (flood stage of 9 feet). The County had approximately \$125,000 in property damage from this event.
December 27-29, 2009	Heavy Rain, Snowmelt, and Flood	N/A	N/A	Rainfall of up to 1.25 inches fell in western New York State. The heavy rainfall combined with unseasonably warm temperatures and a snowpack of 4 to 8 inches resulted in flooding of creeks and streams in the area. In Genesee County, Tonawanda Creek in the City of Batavia crested at 11.71 feet on December 28 (flood stage of 9 feet). Flooding occurred from the City of Batavia through the Town of Alabama. The County had approximately \$50,000 in property damage from this event.
February 12-13, 2009	Heavy Rain, Snowmelt, and Flood	N/A	N/A	A major thaw and rainfall resulted in rapid snowmelt and runoff that caused several creeks to exceed their flood stage. In Genesee County, Tonawanda Creek at the City of Batavia crested at 10.7 feet (flood stage of 9 feet). Several roadways flooded and were closed in the City of Batavia near Kibbe Park. The County had approximately \$15,000 in property damage from this event.
March 8-9, 2009	Heavy Rain, Snowmelt, and Flood	N/A	N/A	Between 2 and 3 inches of rain fell over a 4-day period, combined with melting snow, led to widespread flooding of rivers and creeks. Many roads in the area were flooded and closed. In Genesee County, Tonawanda Creek at Batavia crested at 10.57 feet (flood stage of 9 feet). The County had approximately \$10,000 in property damage from this event.
January 25, 2010	Ice Jam	N/A	N/A	A gage height of 7.83 feet was reported on January 25 due to an ice jam at USGS gaging station at Attica, New York.
July 31, 2012	Heavy Rain and Flash Flooding	N/A	N/A	A large band of showers and thunderstorms developed over western New York State, causing heavy rain and flooding. Over parts of Genesee



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				County, between 2 and 3 inches of rain fell in less than 2 hours. Roads flooded and were closed in Batavia, LeRoy, and Stafford. Numerous basements flooded, with one home having a 20-foot section of the foundation collapse. The storms downed trees and wires as well. The County had approximately \$175,000 in property damage.
December 22-23, 2013	Heavy Rain, Snowmelt and Flood	N/A	N/A	Periods of heavy rain fell across the Niagara Frontier and parts of the Genesee Valley and Finger Lakes. Rainfall totals ranged from 1.5 to 3 inches. The heavy rain combined with snowmelt led to widespread flooding. Flooding occurred along rivers and creeks and in low-lying and poor drainage areas. In Genesee County, Tonawanda Creek at Batavia crested at 11.95 feet (flood stage of 9 feet). The County had approximately \$20,000 in property damage from this event.
June 12, 2014	Heavy Rain and Flash Flood	N/A	N/A	Slow-moving thunderstorms brought between 2 and 2.5 inches of rain across parts of the Genesee Valley and western southern tier. The heavy rain produced flash flooding, inundating roads in parts of the Town of Darien in Genesee County. The County had approximately \$20,000 in property damage from this event.
November 24-25, 2014	Severe Winter Storm, Snowstorm, and Flooding	DR-4204	Yes	<p>One of the most significant winter events in the City of Buffalo's history occurred November 17 – 19 (lake effect event). Over 5 feet of snow fell over areas just east of Buffalo, with just a few inches falling a few miles to the north. There were 13 fatalities, hundreds of roof collapses and structural failures, thousands of stranded motorists, and scattered gas shortages due to impassable roads. Many trees fell due to the weight of snow, which led to isolated power outages. A second lake effect snow event occurred on November 19 –20, bringing another 1 to 4 feet of snow over the same area. Snowfall totals in Genesee County ranged from 28 inches in Attica to 51 inches in Elma.</p> <p>Starting November 24, warmer temperatures caused all the snow from the storm just a few days prior to melt. The melting snow, combined with rain, produced urban and river flooding in the area. Tonawanda Creek at Batavia crested at 9.02 feet (flood stage of 9 feet).</p> <p>The County had approximately \$385,000 in property damage from this event.</p>
April 20, 2017	Heavy Rain and Flooding	N/A	N/A	Strong thunderstorms produced heavy rain in totals of 1 to 3 inches in the area. This resulted in ponding of water on area roadways. Several roads



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				were closed due to flooding. Genesee County had approximately \$30,000 in property damage from this event.

Sources: FEMA 2017; NYS DHSES 2014; National Centers for Environmental Information (NCEI) 2017; USACE 2017
 Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

DR Federal Disaster Declaration
 FEMA Federal Emergency Management Agency
 N/A Not applicable
 NCEI National Centers for Environmental Information
 USGS U.S. Geological Survey

Hazardous Materials

Known hazardous materials events that have impacted Genesee County between 2006 and 2017 are identified in Table H-7. Many sources were researched for historical information regarding hazardous materials events in Genesee County; therefore, Table H-7 may not include all hazardous materials events that have impacted the County.

Table H-1. Hazardous Materials Events in Genesee County Between 2006 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 20, 2009	Hazardous Substance Release	No	N/A	In the City of Batavia, on I-90 Eastbound, a vehicle tried passing a tanker truck. The vehicle lost control and struck the tanker truck in the front corner, causing a rollover of the truck. A small crack in the top of the tank released approximately 20 gallons of gasoline. There were no reports of injuries or fatalities; however, approximately \$126,074 in damage was reported.
May 26, 2009	Hazardous Substance Release	No	N/A	Ammonia leak reported at a large farm in the Town of Elba
August 20, 2009	Chemical Fire	No	N/A	At the Flying J on Route 77 at the Thruway in Pembroke, a truck fire involving a chemical was reported. There was concern with it mixing with water and going down a storm drain in the parking lot. Route 77 was shut down due to the chemical spill and fire.
June 12, 2010	Hazardous Substance Release	No	N/A	County Emergency Management officials issued a voluntary evacuation for residents following an anhydrous ammonia leak in the Village of Oakfield.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 24, 2011	Hazardous Substance Release	No	N/A	Approximately 400 gallons of fuel oil was released due to a vehicular crash at the intersection of Clinton Street and West Bergen in the Town of Bergen. There were no reports of injuries or fatalities; however, approximately \$199,000 in damage was reported.
May 14, 2011	Hazardous Substance Release	No	N/A	A fuel tank reportedly came completely off a car while it was traveling on Byron-Stafford Road near Thwing Road in the Town of Stafford. Approximately 20 gallons of gas was released; the release was declared a Level 1 hazmat incident. The road was closed until the release was cleaned up.
September 12, 2012	Hazardous Substance Release	No	N/A	A motor vehicle accident with injuries was reported on Route 77 in front of the T/A Travel Plaza, involving a semi-truck. The side saddle gas tank of the truck was leaking. Approximately 30 to 40 gallons of gasoline was released. Three injuries were reported as result of this accident.
September 10, 2013	Hazardous Substance Release	No	N/A	Two trucks in the Town of Elba collided, spilling significant amounts of gasoline
May 26, 2014	Hazardous Substance Release	No	N/A	A tank carrying 500 pounds of ammonia-based fertilizer tipped over in the Town of Byron

Sources: PHMSA 2018; North American Hazmat Situations and Deployments 2018

Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

FEMA Federal Emergency Management Agency

N/A Not applicable

Severe Storm

Known severe storm events that have impacted Genesee County between 2007 and 2017 are identified in Table H-8. Many sources were researched for historical information regarding severe storm events in Genesee County; therefore, Table H-8 may not include all severe storm events that have impacted the County.



Table H-1. Severe Storm Events in Genesee County Between 2007 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 8, 2007	Thunderstorm Wind	N/A	N/A	Afternoon and evening thunderstorms developed over western New York State. Strong winds from the storms downed trees and power lines throughout numerous municipalities in the area. Utility companies reported power outages throughout the area with upwards of 20,000 customers without power. In Genesee County, the Towns of LeRoy and Byron experienced downed trees and power lines. Overall, the County had approximately \$20,000 in property damage from this event.
June 19, 2007	Severe Storms and Flooding	DR-1710	No	Strong, damaging thunderstorms produced large hail and strong winds that downed trees and power lines throughout the region. Power companies reported upwards of 20,000 customers without power. In Genesee County, damage was reported in the Towns of Byron and Oakfield. Overall, the County had approximately \$20,000 in property damage from this event.
August 16, 2007	Thunderstorm Wind	N/A	N/A	Thunderstorms in the area produced damaging winds of up to 60 mph that downed trees and power lines. Several thousand were left without power due to the storm. In Genesee County, damage was reported at the Genesee County Airport in the City of Batavia. Overall, the County had approximately \$15,000 in property damage from this event.
September 11, 2007	Thunderstorm Wind	N/A	N/A	Strong thunderstorms produced strong winds that downed trees and power lines. Overall, Genesee County had approximately \$15,000 in property damage from this event.
January 9, 2008	High Wind	N/A	N/A	A powerful cold front crossed the region, bringing strong thunderstorms. The storms produced damaging winds that measured up to 75 mph. Trees and power lines were downed by the winds throughout the region. Many schools were closed due to the winds. Overall, Genesee County had approximately \$175,000 in property damage from this event.
January 30, 2008	High Wind	N/A	N/A	Very strong west to southwest winds followed a powerful cold front that crossed western New York State. Sustained winds increased to 30 to 45 mph with gusts measuring at 80 mph at the peak of the storm. The winds downed trees and power lines throughout the region. Utility companies reported closed to 100,000 customers without power in locations scattered throughout the region. Several homes and cars were damaged by falling trees and limbs. Overall, Genesee County had approximately \$150,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 16, 2008	Hail	N/A	N/A	Western and central New Yorkers experienced a rare widespread large and damaging hail event on June 16th. Strong thunderstorms developed over the region produced large hail of up to two inches in diameter. The large hail damaged homes, windows and cars. The hail also damaged area crops (fruits and vegetables). USDA issued a disaster declaration for Erie, Genesee, Monroe, Ontario, Orleans, and Wayne counties. Overall, Genesee County had approximately \$180,000 in property damage and \$3.4 million in crop damage from this event.
July 23, 2008	Hail	N/A	N/A	Thunderstorms developed across the area, producing damaging winds of up to 60 mph and hail measuring up to one inch in diameter. Scattered power outages were reported. The storms also dropped several inches of rain in a short amount of time. Overall, Genesee County had approximately \$12,000 in property damage from this event.
July 27, 2008	Thunderstorm Wind	N/A	N/A	Severe thunderstorms moved across the area, producing strong winds of up to 60 mph. The winds downed trees and power lines, which led to scattered power outages in northern Erie and western Genesee Counties. Overall, Genesee County had approximately \$10,000 in property damage from this event.
August 18, 2008	Thunderstorm Wind	N/A	N/A	Thunderstorms produced damaging winds, estimated near 60 mph, which downed trees and power lines in parts of Genesee and Jefferson Counties. Overall, Genesee County had approximately \$20,000 in property damage from this event.
September 14, 2008	High Wind and Thunderstorms (remnants of Hurricane Ike)	N/A	N/A	Remnants of Hurricane Ike reached the lower Great Lakes region and brought high winds to the area. Wind gusts of up to 66 mph were measured. The winds downed trees and power lines throughout the area. Debris blocked many streets and highways. There were numerous reports of homes, buildings, and cars being damaged by fallen trees. In Genesee County, wind gusts of 59 mph were measured in the Village of Attica and 55 mph in the Town of Pembroke. Overall, Genesee County had approximately \$115,000 in property damage from this event.
December 24-25, 2008	Thunderstorms and High Wind	N/A	N/A	High winds impacted much of western New York State, which were enhanced by the funneling effects of Lakes Erie and Ontario. The strong winds developed during the evening of December 24th and continued until early morning on December



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				25th. Overall, Genesee County had approximately \$25,000 in property damage from this event
December 28, 2008	High Winds	N/A	N/A	Winds speeds of 30 to 40 mph were reported downwind of Lakes Erie and Ontario. Nearly 100,000 customers were without power during the storm and nearly 90,000 were without phone service. Downed trees damaged several structures and cars. The strong winds also tore off roofs and shingles on many buildings. Overall, Genesee County had approximately \$100,000 in property damage from this event.
February 12, 2009	High Winds	N/A	N/A	Strong winds developed after a deep low pressure moved across southern Ontario and Lake Ontario to the New England coast. The winds impacted much of western New York State, with gusts measuring up to 69 mph. The strong winds downed trees and power lines, cutting power to nearly 100,000 customers. In Genesee County, 58 mph winds were reported in the Town of LeRoy. Overall, the County had approximately \$30,000 in property damage from this event.
July 25, 2009	Tornado (EF1)	N/A	N/A	A tornado crossed the Town of Darien and Village of Corfu in Genesee County. The initial touchdown occurred on Reynolds Road in the Town of Darien. It then moved northeast across Routes 77 and 33 before lifting near Boyce Road. Widespread damage occurred in the Village of Corfu. Over 30 homes were damaged and three buildings were destroyed. Two greenhouses were also destroyed. Telephone poles were snapped and numerous trees were uprooted. Overall, the County had approximately \$2 million in property damage from this event.
August 8, 2009	Severe Storms and Flooding	DR-1857	No	Strong thunderstorms, heavy rain and high winds moved across western New York State. The storms resulted in widespread damage, downed trees, and flooding. Trees as large as two to three feet in diameter were downed by the winds. Power outages were scattered throughout the region. Heavy rains fell at a rate of 4 to 6 inches in less than 2 hours, which resulted in some of the worst flash flooding the area has experienced. FEMA declared the Counties of Erie, Chautauqua, Cattaraugus, and Allegany major disaster areas. In Genesee County, the strong winds downed trees and wires throughout the area. Overall, the County had approximately \$20,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 8, 2010	High Wind	N/A	N/A	Wind gusts of 60 to 65 mph were measured across the area. Tens of thousands of customers were without power. Overall, the County had approximately \$100,000 in property damage from this event.
July 21, 2010	Thunderstorms and Wind	N/A	N/A	Thunderstorms produced large hail and damaging winds. Hail up to 1.75 inches in diameter was reported in Ontario, Wayne, and Jefferson Counties. The thunderstorm winds downed trees and power lines in Lyons, Rochester, Brighton, Clayton, Cape Vincent, Elba (Genesee County), Adams Center, Fulton and Constableville. Utility companies reported thousands without power. In Genesee County, a large tree was reported down in the Town of Elba. Overall, the County had approximately \$10,000 in property damage from this event.
August 16, 2010	Thunderstorms and Wind	N/A	N/A	Thunderstorms produced strong winds that downed trees and power lines in the area. In Genesee County, trees were down in Indian Falls (Town of Pembroke). Overall, the County had approximately \$10,000 in property damage from this event.
September 7, 2010	Thunderstorms and Wind	N/A	N/A	A strong thunderstorm produced wind gusts of up to 60 mph. The winds downed trees and power lines in the Towns of Alabama, Pembroke, and Darien in Genesee County. Overall, the County had approximately \$24,000 in property damage from this event.
April 28, 2011	Severe Storms, Flooding, Tornadoes, and Straight-Line Winds	DR-1993	No	Strong winds, with gusts of up to 83 mph, developed across western New York State, downing trees and power lines. In Genesee County, a tractor trailer was overturned in the Town of Alabama. Overall, the County had approximately \$30,000 in property damage from this event.
August 25, 2011	Hurricane Irene	EM-3328 DR-4020	No	Thunderstorms developed during the evening of August 25th. Wind gusts measured up to 60 mph, downing trees and power lines. In Genesee County, a home was damaged when a lightning strike caused a fire in East Pembroke. Overall, the County had approximately \$25,000 in property damage from this event.
January 17, 2012	Thunderstorms and Wind	N/A	N/A	Thunderstorms produced wind gusts of up to 70 mph across the region. The strong winds downed trees and power lines. Power outages were scattered throughout the region. In Genesee County, there were multiple reports of downed trees and power lines in the Towns of Darien, Pembroke, Oakfield, Byron, and LeRoy. Overall, the County had approximately \$104,000 in property damage.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 7, 2012	Thunderstorms	N/A	N/A	An isolated thunderstorm produced damaging winds in the City of Batavia. Trees and limbs were downed, and an automobile was crushed by a fallen tree. Overall, the County had approximately \$20,000 in property damage from this event.
September 6, 2012	Hail	N/A	N/A	Showers and thunderstorms moved over the region. Wind gusts from the storms downed trees and power lines. In Genesee County, several large tents were blown over in the Town of Alexander. Dime-sized hail fell in the Town as well. Overall, the County had approximately \$10,000 in property damage from this event.
September 8, 2012	Thunderstorms	N/A	N/A	A line of thunderstorms produced strong winds that downed trees and power lines. Utility companies reported tens of thousands of customers without power. In Indian Falls, there were reports of downed trees and wires. Overall, the County had approximately \$10,000 in property damage from this event.
October 29, 2012	Remnants of Hurricane Sandy	DR-4085	Yes	Remnants of Hurricane Sandy brought strong winds and heavy rains to western and north central New York State. Rainfall amounts of 2 to 5 inches were measured across the area with some area creeks reaching or overflowing their banks. The high winds downed trees and power lines throughout the region. Wind gusts were measured up to 60 mph. Tree damage was greater than usual with such wind speeds because of saturated ground and northeast winds. In Genesee County, there were reports of downed trees and power lines throughout. Overall, the County had approximately \$150,000 in property damage from this event.
January 20, 2013	High Wind	N/A	N/A	Strong, damaging winds in the region downed trees, utility poles, and power lines. Numerous roads were blocked by fallen trees, wires, and debris. Structural damage was also reported. In Genesee County, there were reports of downed trees and wires in the Town of Pembroke. Overall, the County had approximately \$15,000 in property damage from this event.
January 31, 2013	High Wind	N/A	N/A	Strong winds downed trees and power lines in the Town of Pembroke, causing approximately \$10,000 in property damage.
May 22, 2013	Severe Storms and Flooding	N/A	N/A	Strong thunderstorms produced large hail and damaging winds. In the City of Batavia, there were reports of downed trees and wires. Overall, the County had approximately \$10,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
July 19, 2013	Thunderstorms and Wind	N/A	N/A	Thunderstorms moved across the region with wind gusts of up to 60 mph. The strong winds downed trees and power lines. Scattered power outages were reported. Many roads were blocked by fallen trees and debris. There were several reports of minor structural damage as well. In Genesee County, there were reports of downed trees in the Town of Darien. Overall, the County had approximately \$10,000 in property damage from this event.
June 17, 2014	Thunderstorms and Wind	N/A	N/A	A series of thunderstorms produced strong, damaging winds and hail. There were numerous reports of downed trees and power lines and structural damage due to the wind and hail. In Genesee County, there were reports of downed trees and wires throughout the County. Overall, the County had approximately \$25,000 in property damage from this event.
July 8, 2014	Thunderstorms and Wind	N/A	N/A	Thunderstorms produced strong winds and caused widespread damage throughout the region. The highest wind gust was measured at 66 mph. In Genesee County, trees were reported down along Route 20 in Pavilion. Overall, the County had approximately \$10,000 in property damage from this event.
December 24-25, 2014	Thunderstorms and High Wind	N/A	N/A	Strong winds gusted to 67 mph, downed trees and power lines throughout the region. Tractor trailers were overturned, roofs were torn off buildings, and utility poles were knocked down. Genesee County experienced downed trees and power lines from this event. Overall, the County had approximately \$55,000 in property damage from this event.
January 4, 2015	High Wind	N/A	N/A	Overall, Genesee County had approximately \$20,000 in property damage from this event.
April 10, 2015	High Wind	N/A	N/A	Strong, damaging winds developed across parts of western New York State, mainly downwind of Lakes Erie and Ontario. Wind gusts ranged from 58 mph to 62 mph. In Genesee County, the strong winds tore off large roof vents of buildings in the City of Batavia and snapped utility poles. Thousands of people were without power. Overall, the County had approximately \$35,000 in property damage from this event.
April 20, 2015	Thunderstorm Wind	N/A	N/A	In East Pembroke, an isolated thunderstorm produced strong winds that brought down several trees near the intersection of Indian Falls and Pratt Roads. Overall, Genesee County had approximately \$10,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 11, 2015	Thunderstorm Wind	N/A	N/A	A line of thunderstorms moved across the Niagara Frontier, producing strong winds with gusts of up to 60 mph. Trees and power lines were downed from the winds in the Towns of Fargo and Pembroke in Genesee County. In Darien, there were reports of downed trees and wires. In Pembroke, there were trees and wires down on Maple Road. Overall, Genesee County had approximately \$35,000 in property damage from this event.
June 23, 2015	Thunderstorm Wind	N/A	N/A	A series of showers and thunderstorms moved across the lower Great Lakes Region, bringing strong winds that downed trees, power lines and damaged structures and cars. Some roadways were closed due to debris. In Genesee County, there were multiple reports of downed trees and power lines in Batavia, Bethany Center, Stafford, LeRoy, and Pavilion Center. Overall, the County had approximately \$65,000 in property damage from this event.
June 2, 2016	Lightning	N/A	N/A	Thunderstorms moved across the region from west to east as a cold front approached. In Genesee County, a lightning strike from one of the storms started a house fire on Shepard Road in the Town of Pavilion. Overall, Genesee County had approximately \$20,000 in property damage from this event.
July 14, 2016	Thunderstorms and Lightning	N/A	N/A	Thunderstorms moved across southern Ontario and the eastern Great Lakes crossing western New York. The thunderstorms produced wind gusts that measured up to 62 mph. A majority of the damage from these storms were downed trees and power lines. In Genesee County, there were downed trees on Tesnow Road in the Town of Alabama. In the Town of LeRoy, there were downed trees on West Main Street. In the City of Batavia, downed trees were reported on South River Street. Overall, Genesee County had approximately \$45,000 in property damage from this event.
August 10, 2016	Lightning	N/A	N/A	In the Town of Batavia, two people died as a result of a lightning strike from a series of thunderstorms.
August 13, 2016	Thunderstorm Wind	N/A	N/A	Thunderstorms developed across western New York State, bringing strong winds that downed trees and power lines in the region. In Genesee County, there were reports of downed trees in Bethany Center. Overall, Genesee County had approximately \$8,000 in property damage from this event.
September 17, 2016	Thunderstorm Wind	N/A	N/A	A line of thunderstorms produced damaging winds and downed trees and power lines in Genesee County. There were reports of downed trees and power lines in the Village of Corfu. Overall,



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				Genesee County had approximately \$10,000 in property damage from this event.
January 4, 2017	High Wind	N/A	N/A	Deep cold air building across the region brought strong, gusty winds to the eastern end of Lake Erie. Wind gusts measured between 50 and 60 mph across parts of Erie, Genesee and Chautauqua Counties. Power outages were reported throughout the region. In Genesee County, the strong winds blew down a portion of a concrete block building wall in East Pembroke. Downed trees and power lines were also reported throughout the County. Overall, Genesee County had approximately \$50,000 in property damage from this event.
January 11, 2017	High Wind	N/A	N/A	Gusty winds accompanied the passage of a deepening storm system crossing the upper Great Lakes. Wind gusts of 64 mph were measured at Dunkirk, Batavia (Genesee County) and Niagara Falls Airport. The strong winds downed trees and power lines. Several thousand customers were without power. Numerous roads were closed due to fallen trees. In Genesee County, strong winds downed trees and power lines. Overall, Genesee County had approximately \$75,000 in property damage from this event.
March 1, 2017	High Wind	N/A	N/A	Strong winds downed trees and power lines throughout the region. Gusts as high as 64 mph were measured. In Genesee County, a gas station canopy was knocked over in the City of Batavia where wind gusts of 61 mph were recorded. Overall, Genesee County had approximately \$25,000 in property damage from this event.
March 8, 2017	High Wind	N/A	N/A	Strong winds impacted the entire region, with sustained winds of up to 49 mph and wind gusts as high as 81 mph. Areas that were hit hard included parts of Orleans, Monroe, and Genesee Counties. In Genesee County, the strong winds derailed a train in the City of Batavia. Twelve out of 31 freight cars were blown off the tracks. Wind gusts of 76 mph were reported in Batavia. Several buildings were damaged due to wind in the City as well. A driver was injured when a tractor trailer overturned due to the wind in the Town of Alexander. Overall, Genesee County had approximately \$500,000 in property damage from this event.
April 4, 2017	Thunderstorm Wind	N/A	N/A	Wind gusts of up to 59 mph were measured in the area, downing trees and power lines throughout the region. Overall, Genesee County had approximately \$30,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
May 1, 2017	Thunderstorm Wind	N/A	N/A	A line of thunderstorms produced damaging winds that downed trees and wires across western New York State. Some of the downed trees caused minor structural damage. Wind gusts measured 60 mph. The line of storms also produced heavy rainfall, with amounts of 0.75 to 1.5 inches over a few hours. There were road closures due to flooding, mainly in flood-prone areas of communities. In Genesee County, there were downed trees reported in the Towns of Alabama, Alexander, Pavilion, and Oakfield. Overall, Genesee County had approximately \$45,000 in property damage from this event.

Sources: NOAA-NCEI 2017; FEMA 2017; NWS 2017

Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

DR Major Disaster Declaration
EM Emergency Declaration
FEMA Federal Emergency Management Agency
mph Miles per hour (wind)
N/A Not applicable
NOAA National Oceanic and Atmospheric Administration
NCEI National Centers for Environmental Information
NWS National Weather Service

Severe Winter Storm

Known severe winter storm events that have impacted Genesee County between 2007 and 2017 are identified in Table H-9. Many sources were researched for historical information regarding severe winter storm events in Genesee County; therefore, Table H-9 may not include all severe winter storm events that have impacted the County.

Table H-1. Severe Winter Storm Events in Genesee County Between 2007 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
February 13, 2007	Heavy Snow	N/A	No	A general snowfall of between one and two feet of snow blanketed the entire region, with slightly higher amounts across the higher elevations of the Finger Lakes Region. There were multiple automobile crashes due to wintry conditions. There were several reports of roofs collapsing as well. Overall, Genesee County had approximately \$20,000 in property damage from this event.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
March 16, 2007	Heavy Snow	N/A	No	A low pressure over the area brought a blanket of heavy snow across the entire region. Between eight and 10 inches of snow fell across the area, with slightly higher amounts downwind of Lakes Erie and Ontario. The heavy snow fell after significant flooding across the western sections. Overall, Genesee County had approximately \$10,000 in property damage from this event.
December 15-17, 2007	Heavy Snow	N/A	No	A system brought heavy snow across the region, closing many schools. Numerous automobile accidents were reported due to snow-covered and slippery roads. Overall, Genesee County had approximately \$15,000 in property damage from this event.
March 7-9, 2008	Winter Storm	N/A	No	This was one of the worst storms of the 2007-2008 winter season. Numerous automobile accidents occurred due to slippery conditions and poor visibility in falling and blowing snow. Snowfall totals in Genesee County included 16 inches in Darien (T). The county had approximately \$25,000 in property damage from this event.
December 1, 2010	Lake-Effect Snow	N/A	No	This was the second lake-effect event of the winter season and was one of the most intense and disruptive storms in the Buffalo area. Snowfall rates of one to two inches per hour fell over the area. In Genesee County, snowfall totals included 17 inches in Darien (T). The county had approximately \$20,000 in property damage from this event.
December 21, 2013	Ice Storm	N/A	No	Genesee County had approximately \$50,000 in property damage from this event.
November 17-19, 2014	Severe Winter Storm, Snowstorm, and Flooding	DR-4204	Yes	<p>This event was one of the most significant winter events in Buffalo history. Over 5 feet of snow fell in areas just east of Buffalo. There were 13 fatalities, hundreds of major roof collapses and structural failures, thousands of stranded motorists, and scattered food and gas shortages. The weight of the snow downed trees, causing isolated power outages. The event resulted in a FEMA major disaster declaration in New York State for nine counties, including Genesee County.</p> <p>In Genesee County, snowfall totals included 40 inches in Corfu (V), 36 inches in Darien (T), and 28 inches in Attica (V). The County had approximately \$285,000 in property damage from this event.</p>
December 10, 2014	Winter Storm	N/A	No	Snowfall totals in Genesee County included 12 inches in Stafford (T). The county had approximately \$25,000 in property damage.
January 8, 2015	Lake-Effect Snow	N/A	No	Snowfall totals in Genesee County included 23 inches in Attica (V) and 8 inches in Corfu (V). The



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				county had approximately \$15,000 in property damage from this event.
February 1, 2015	Winter Storm	N/A	No	Snowfall totals in Genesee County included 13 inches in Corfu (V). The county had approximately \$20,000 in property damage from this event.
February 15-16, 2016	Winter Storm	N/A	No	A winter storm brought snow to western New York State. Snowfall totals in Genesee County included 12 inches at Stafford (T) and 14 inches in Le Roy (T). The county had approximately \$15,000 in property damage from this event.
November 20, 2016	Lake-Effect Snow	N/A	No	Widespread light to moderate snow fell across the region from Genesee Valley into Central and Northern New York State. Snowfall totals of 9 inches were reported in Genesee County. The county had approximately \$20,000 in property damage from this event.
March 13, 2017	Winter Storm	DR-4322	No	<p>Significant snow fell over the region, closing schools and businesses, and cancelling flights out of Buffalo and Rochester. The state enacted a travel ban on tractor trailers on the major interstates. The National Guard was called on to assist in snow removal in some locations. The event resulted in a FEMA major disaster declaration in New York State for 28 counties; however, Genesee County was not included in the declaration.</p> <p>In Genesee County, 14 inches of snow was reported in Stafford (T) and Corfu (V). The county had approximately \$30,000 in property damage from this event.</p>
December 10, 2017	Lake-Effect Snow	N/A	No	<p>Cold air deepened over the eastern Great Lakes with heavy lake snows developing east of Lakes Erie and Ontario. The wind direction was from the west-southwest for most of the event, directing the heaviest snow into the nearby Buffalo Southtowns off Lake Erie, and areas just south and east of Watertown off Lake Ontario. This band of heavy snow then remained nearly stationary through the afternoon and evening of December 10, extending east into northern Wyoming and southern Genesee Counties. During the height of the storm, snowfall rates reached about 3 inches per hour. Heavy accumulation extended farther inland (which was unusual), reaching eastern Genesee and eastern Wyoming Counties with moderate accumulations being reported into western Monroe and northern Livingston Counties.</p> <p>In Genesee County, snowfall totals included 13 inches in Attica (V), and 8 inches in Stafford (T) and Corfu (V). The county had approximately \$15,000 in property damage from this event.</p>

Sources: NYS DHSES 2014; FEMA 2016; NWS 2016; NOAA-NCEI 2018



Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

FEMA Federal Emergency Management Agency
 NOAA-NCEI National Oceanic Atmospheric Administration – National Centers for Environmental Information
 NWS National Weather Service
 NYSDHSES New York State Department of Homeland Security and Emergency Services
 N/A Not applicable
 T Town
 V Village

Terrorism

There have been no known terrorism events which have impacted Genesee County between 1952 and 2017.

Transportation Accident

Known transportation accident events that have impacted Genesee County between 2009 and 2016 are identified in Table H-10. Many sources were researched for historical information regarding transportation accident events in Genesee County; therefore, Table H-10 may not include all transportation accident events that have impacted the County.

Table H-1. Transportation Accident Events in Genesee County Between 2009 and 2016

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
2009	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 2,069 vehicular accidents (9 fatal, 482 injured, \$1,578 in property damages); 1 railroad incidents; and 1 aviation accident.
2010	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 2,126 vehicular accidents (8 fatal, 511 injured, \$1,607 in property damages); 0 railroad incidents; and 0 aviation accident.
2011	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 1,860 vehicular accidents (8 fatal, 402 injured, \$1,450 in property damages); 0 railroad incidents; and 1 aviation accident.
2012	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 2,010 vehicular accidents (11 fatal, 446 injured, \$1,553 in property damages); 0 railroad incidents; and 1 aviation accident.
2013	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 2,070 vehicular accidents (8 fatal, 421 injured, \$1,641 in property damages); 0 railroad incidents; and 0 aviation accident.
2014	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 2,005 vehicular accidents (5 fatal, 368 injured, \$1,632 in



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				property damages); 0 railroad incidents; and 1 aviation accident.
2015	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 1,910 vehicular accidents (6 fatal, 384 injured, \$1,520 in property damages); 0 railroad incidents; and 1 aviation accident.
2016	Transportation Accident	N/A	N/A	In Genesee County, there were a reported 1,922 vehicular accidents (5 fatal, 378 injured, \$1,539 in property damages); 0 railroad incidents; and 1 aviation accident.

Sources: New York State Department of Motor Vehicles (NYS DMV) 2017; NTSB 2018; Federal Railroad Administration 2017

Note (1): Monetary figures within this table were U.S. Dollar (USD) figures calculated during or within the approximate time of the event. If such an event would occur in the present day, monetary losses would be considerably higher in USDs as a result of increased U.S. Inflation Rates.

Utility Interruption

Known utility interruption events that have impacted Genesee County between 2008 and 2017 are identified in Table H-11. Many sources were researched for historical information regarding utility interruption events in Genesee County; therefore, Table H-11 may not include all utility interruption events that have impacted the County.

Table H-1. Utility Interruption Events in Genesee County Between 2008 and 2017

Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
January 8, 2008	Thunderstorm Wind	N/A	N/A	Trees and power lines were downed by strong winds. Utility companies reported tens of thousands of customers without power in locations scattered throughout region. Crews from Ohio, Connecticut, and sections of eastern New York traveled to the area to help with power restoration which, in some cases, took several days.
June 7, 2008	Utility Maintenance	N/A	N/A	Parts of Alexander and Dodgeson Roads in the Town of Batavia experienced power outages. At the time of the outage, National Grid was working on Route 98 at the city line.
June 17, 2008	Utility Failure	N/A	N/A	A failure at the Batavia substation on Franklin Street left 5,800 residents in Batavia and about 1,000 others in Alexander, Pembroke, and Elba without power. Power was restored after midnight.
September 14, 2008	Thunderstorm Wind	N/A	N/A	Winds downed trees and power lines throughout the area.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
November 13, 2008	Transformer Fire	N/A	N/A	A transformer fire near Williams Park was believed to be responsible for the loss of power to about 2,000 residences in the City of Batavia and Towns of Batavia and Pembroke.
February 13, 2009	Utility Failure	N/A	N/A	A power outage occurred at United Memorial Medical Center as a result of difficulties with the electrical power redundancy system at the North Campus, where 90 patients were located. The fault in the system occurred where a transfer switch that allows 75% of the hospital's needs to move to generator power failed. The hospital was without power for 15 minutes to diagnose the problem around noon and by about 5 pm, the hospital was back to full operations after cancelling operations.
July 25, 2009	Tornado	N/A	N/A	A tornado crossed the town of Darien and village of Corfu in Genesee County. Twenty power poles were snapped.
September 28, 2009	Thunderstorm Wind	N/A	N/A	Winds downed trees and power lines throughout the region with utilities reporting tens of thousands of customers without service.
July 21, 2010	Thunderstorm Wind	N/A	N/A	Thunderstorms developed ahead of an approaching cold front. Utility companies reported thousands without power.
August 16, 2010	Thunderstorm Wind	N/A	N/A	Strong winds downed trees and power lines. Power outages were reported.
September 7, 2010	Thunderstorm Wind	N/A	N/A	Winds downed trees and wires in Alabama, Pembroke, and Darien.
May 4, 2011	Utility Failure	N/A	N/A	Issues with a power line that stretches under the Thruway caused a power outage that affected over 500 National Grid customers along the Route 98 corridor from Batavia to Elba. Power was restored that day, but the outage resulted in one person being stuck in a Hampton Inn elevator, which was corrected by back-up generators.
August 25, 2011	Thunderstorm Wind, Lightning	N/A	N/A	Thunderstorm winds gusting to 60 mph downed trees and power lines.
January 17, 2012	Thunderstorm Wind	N/A	N/A	Strong winds downed trees and power lines and poles. Power outages were scattered throughout the region with utilities reporting several thousand customers without power at its worst.
July 19, 2013	Thunderstorm Wind	N/A	N/A	Strong winds downed trees and powers lines. Power outages, while scattered throughout, were reported from a large portion of the area.
December 11, 2013	Car Accident	N/A	N/A	A vehicle slid off the road and hit a meter box on Route 77 at Route 20. The meter box-maintained power, but National Grid had to turn off power to the area for DOT to fix the stop lights.



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
June 17, 2014	Thunderstorm Wind	N/A	N/A	Scattered showers and thunderstorms developed in a warm, humid air mass during the afternoon hours. These were followed by a large area of showers and thunderstorms associated with low pressure moving across the Great Lakes into southern Ontario and then Quebec. Several of the thunderstorms produced strong, damaging winds. Damage was mainly reported as downed trees and wires; however, there were some reports of structural and other damage.
September 8, 2014	Power Line Down	N/A	N/A	A live wire down near 110 S. Swan Street in Batavia caused localized power outages to the area. City fire department was dispatched to deal with the sparking wire.
December 24, 2014	Thunderstorm Winds	N/A	N/A	Thunderstorm winds downed trees and power lines in Orleans and Genesee Counties. Damage was reported near Oakfield.
May 11, 2015	Thunderstorm Winds	N/A	N/A	A line of thunderstorms moved across the Niagara Frontier during the late evening hours. The thunderstorms produced strong wind gusts estimated to near 60 mph. Trees and power lines were downed in East Aurora, Darien, and Pembroke.
June 23, 2015	Thunderstorm Winds	N/A	N/A	An area of showers and thunderstorms moved across the lower Great Lakes region during the overnight and very early-morning hours. The thunderstorms produced strong winds that downed trees and power lines. Several of the downed trees damage structures and cars. Some roads were temporarily blocked by debris.
July 19, 2015	Unknown	N/A	N/A	A power outage extended in the Byron-Bergen area from LeRoy to the south and almost as north and east as Bergen. Additionally, a smaller outage affected 44 customers in Alexander near the county line. A reader of The Batavian reported a downed tree.
August 13, 2016	Thunderstorm Wind	N/A	N/A	Thunderstorms developed across the region in a moist unstable air mass. Numerous thunderstorms developed on outflow and lake breeze boundaries. The thunderstorms downed trees and wires throughout the region.
September 17, 2016	Thunderstorm Wind	N/A	N/A	Thunderstorms developed during the evening hours in a warm, moist, and unstable atmosphere. A few of these storms produced damaging winds that downed some trees and power lines.
October 24, 2016	Utility Failure	N/A	N/A	About 2,400 National Grid customers were affected by a power outage in Batavia that extended from an area north of East Main Street from Bank Street to just east of Clinton Street and stretching north in a triangle with the tip on Bank Street Road in East



Date(s) of Event	Event Type	FEMA Declaration Number	County Designated?	Losses / Impacts
				Elba. Power was restored through some switching, while the problem was diagnosed and corrected. It was believed to have been a fuse problem in the station that caused the outage.
March 8, 2017	High Wind	N/A	N/A	Severe windstorms with gusts in excess of 70 mph caused numerous wires to down and poles to break throughout the County, which resulted in widespread power outages. National Grid brought in crews from unaffected areas of the region to help with the restoration efforts. Estimates indicated about 164,000 customers in western New York were without power with Niagara, Orleans, and western Genesee Counties being the hardest hit. Power poles were snapped.

Sources: NOAA-NCDC 2017; *The Batavian* 2008, 2009, 2011, 2013, 2014, 2015, 2016

mph Miles per Hour

NCDC National Climatic Data Center

NOAA National Oceanic and Atmospheric Administration

Wildfire

There have been no known wildfire events which have impacted Genesee County between 2007 and 2017.

APPENDIX I: MITIGATION STRATEGY SUPPLEMENTARY DATA



This appendix summarizes additional activities and resources provided to plan participants to support the update of the mitigation strategy.

2019 GOALS AND OBJECTIVES REVIEW

The goals and associated objectives for Genesee County and municipalities included in the plan were developed based in part on a review of the hazard mitigation goals and objectives established in the 2023 NYS HMP, the 2019 Genesee County HMP, as well as the current or expired municipal hazard mitigation plans within the county. Further, these goals were selected to be compatible with the needs and goals expressed in other available County and local community planning documents. Achievement of these goals helps to define the effectiveness of a mitigation strategy. Table I-1 and Table I-2 summarize the goals and objectives for the 2025 HMP update, respectively. Changes to the 2019 Genesee County HMP goals and objectives are indicated by italicized font.

Table I-2. 2025 Goals

Goal Number	2025 Goals
1	Reduce the likelihood and impacts of hazards on life, property, and the environment.
2	Protect life, property, critical infrastructure, the environment, and the economy from the impacts of natural, technological, and human-caused disasters.
3	Educate the public, officials, and other stakeholders about the hazards they face and what can be done to mitigate hazard impacts.
4	<i>Reduce the risk of natural, technological, and human-caused hazards for socially vulnerable populations.</i>
5	<i>Address long-term vulnerabilities from hazardous dams.</i>

Table I-3. 2025 Objectives

Objective Number	2025 Objectives
1.1	Develop and/or update local regulations based on current information and best practices.
1.2	Maintain natural systems to reduce the impacts of hazards.
1.3	<i>Strengthen understanding of, and adaptation to, a changing climate.</i>
1.4	<i>Encourage the use of green and natural infrastructure.</i>
2.1	Acquire, retrofit, or relocate structures from flood-prone areas.
2.2	Retrofit critical infrastructure to protect against hazard impacts.
2.3	Ensure that critical facilities can continue to function during and after hazard impacts.
2.4	Work with residents to maintain drainage ditches on private property.
2.5	Encourage residents and business owners to insure their property against hazard impacts, including through flood insurance through the National Flood Insurance Program (NFIP).
3.1	Work with legislators to develop and enact legislation that reduces long-term vulnerability to hazards.
3.2	Increase public awareness of the hazards and risks faced by the County's residents and businesses, and what measures they can take to protect their property.
3.3	<i>Increase local government official awareness regarding funding opportunities for mitigation and participating/contributing to plan updates.</i>



Objective Number	2025 Objectives
4.1	<i>Identify and provide additional resources to vulnerable and marginalized populations that have reduced capacity to respond to hazards compared with the general population.</i>
4.2	<i>Encourage the establishment of policies to help ensure the prioritization and implementation of mitigation actions and/or projects designed to benefit socially vulnerable populations and underserved communities.</i>
5.1	<i>Ensure dam infrastructure is maintained.</i>
5.2	<i>Support the identification of and access to funding for the repair or replacement of dams.</i>
5.3	<i>Ensure emergency action plans are developed and updated.</i>

MITIGATION STRATEGY WORKSHOP RESOURCES

On March 18, 2025, a Mitigation Strategy Workshop was held for all plan participants. The workshop was held in-person and was led by the contract consultant. Following the meeting, participating jurisdictions had the opportunity to work in-person with the contracting consultant. Furthermore, this meeting was supplemented by emails and phone calls between Genesee County and the contract consultant, for all participants to support the development of focused problem statements based on the impacts of natural hazards in the county and their communities. These problem statements were intended to provide a detailed description of the problem area, including its impacts to the jurisdiction; past damages; loss of service; etc. An effort was made to include the street address of the property/project location, adjacent streets, water bodies, and well-known structures as well as a brief description of existing conditions (topography, terrain, hydrology) of the site. These problem statements formed a bridge between the hazard risk assessment which quantifies impacts to each community with the development of actionable mitigation strategies. Resources available at the workshop and follow up discussions included the following to assist with the identification of mitigation alternatives and the development of the mitigation strategy workshops found in Volume II (Annexes).

1. FEMA Local Mitigation Handbook
2. Public Survey Results
3. FEMA Mitigation Action Types (Table I-5)
4. FEMA Mitigation Ideas
5. FEMA Project Useful Life Factsheet
6. Mitigation Funding Sources at the Federal, State, and Local levels (Table I-6)
7. FEMA Region 2 Funding Sources for New York
8. FEMA Ecosystem Services
9. Mitigation Catalog

Types of Mitigation Actions

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

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

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



- Education and Awareness Programs (EAP)

Table I-4. FEMA Mitigation Action Types

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



Potential Mitigation Funding Sources

While it is important to recognize the mitigation strategies for Cattaraugus County to help achieve the mitigation goals and objectives of the HMP, it is also important to provide sources for funding to implement these strategies. The table below provides a list of programs, descriptions, and links for those seeking funding sources. Please note that this table is not intended to be a comprehensive list, but rather a starting point to help identify potential sources of funding for the identified mitigation strategies.

Table I-5. New York Mitigation Funding Sources

Program	Description	Lead Agency	Website
Federal			
Hazard Mitigation Assistance (HMA)	Grants to provide funding for eligible mitigation activities that reduce disaster losses and protect life and property from future disaster damages – includes FMA, HMGP, PDM	FEMA	https://www.fema.gov/hazard-mitigation-assistance
Flood Mitigation Assistance (FMA)	Program Grants to States and communities for pre-disaster mitigation planning and projects to help reduce or eliminate the long-term risk of flood damage to structures insurable under the National Flood Insurance Program	FEMA	https://www.fema.gov/flood-mitigation-assistance-grant-program
Hazard Mitigation Grant Program (HMGP)	Grants to States and communities for planning and projects providing long-term hazard mitigation measures following a major disaster declaration	FEMA	https://www.fema.gov/hazard-mitigation-grant-program
Building Resilient Infrastructure and Communities (BRIC)	Supports states, local communities, tribes and territories to undertake hazard mitigation projects by reducing the risks they face from disasters and natural hazards. BRIC is a new FEMA pre-disaster hazard mitigation program that replaces the existing Pre-Disaster Mitigation (PDM) program.	FEMA	https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities
Public Assistance: Hazard Mitigation Funding Under Section 406	Hazard mitigation discretionary funding available under Section 406 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act following a Presidentially declared disaster	FEMA	https://www.fema.gov/press-release/20220328/fema-hazard-mitigation-grants-404-and-406



Program	Description	Lead Agency	Website
Assistance to Firefighters Grant Program	The primary goal of the Assistance to Firefighters Grants (AFG) is to enhance the safety of the public and firefighters with respect to fire-related hazards by providing direct financial assistance to eligible fire departments, nonaffiliated Emergency Medical Services organizations, and State Fire Training Academies. This funding is for critically needed resources to equip and train emergency personnel to recognized standards, enhance operations efficiencies, foster interoperability, and support community resilience.	FEMA	https://www.fema.gov/welcome-assistance-firefighters-grant-program
High Hazard Potential Dams (HHPD) Rehabilitation Grant	The Rehabilitation of High Hazard Potential Dams Grant Program (HHPD) provides technical, planning, design, and construction assistance in the form of grants to non-Federal governmental organizations or nonprofit organizations for rehabilitation of eligible high hazard potential dams.	FEMA	https://www.grants.gov/web/grants/view-opportunity.html?oppld=316238
Fire Management Assistance Grant Program	Assistance for the mitigation, management, and control of fires on publicly or privately-owned forests or grasslands that threaten such destruction as would constitute a major disaster. Provides a 75% Federal cost share and the State pay the remaining 25% for actual cost.	FEMA	https://www.fema.gov/fire-management-assistance-grant-program
Disaster Housing Program	Emergency assistance for housing, including minor repair of home to establish livable conditions, mortgage, and rental assistance	HUD	https://www.hud.gov/program_offices/public_indian_housing/publications/dhap
HOME Investment Partnerships Program	Grants to local and state government and consortia for permanent and transitional housing, (including financial support for property acquisition and rehabilitation for low-income persons)	HUD	https://www.hud.gov/program_offices/comm_planning/affordablehousing/programs/home/
HUD Disaster Recovery Assistance	Grants to fund gaps in available recovery assistance after disasters (including mitigation)	HUD	https://www.hud.gov/info/disasterresources
Section 108 Loan Guarantee	Enables states and local governments participating in the Community Development Block Grant (CDBG) program to obtain federally guaranteed loans for disaster-distressed areas	HUD	https://www.hudexchange.info/programs/section-108/
Smart Growth Implementation Assistance (SGIA) program	The SGIA program focuses on complex or cutting-edge issues, such as stormwater management, code revision, transit-oriented development, affordable housing, infill development, corridor planning, green building, and climate change. Applicants can submit proposals under 4 categories: community resilience to disasters, job creation, the role of manufactured homes in sustainable neighborhood design or medical and social service facilities siting.	EPA	https://www.epa.gov/smartgrowth



Program	Description	Lead Agency	Website
Partners for Fish and Wildlife	Financial and technical assistance to private landowners interested in pursuing restoration projects affecting wetlands and riparian habitats	U.S. Fish and Wildlife Service	https://www.fws.gov/partners/
FHWA Emergency Relief Program	Fund for the repair or reconstruction of Federal-aid highways that have suffered serious damage as a result of (1) natural disasters or (2) catastrophic failures from an external cause	U.S. Department of Transportation (DOT)	https://www.fhwa.dot.gov/programadmin/erelief.cfm
Transportation Investment Generating Economic Recovery (TIGER)	Investing in critical road, rail, transit, and port projects across the nation	U.S. DOT	https://www.transportation.gov/tags/tiger-grants
Community Facilities Direct Loan & Grant Program	This program provides affordable funding to develop essential community facilities in rural areas. An essential community facility is defined as a facility that provides an essential service to the local community for the orderly development of the community in a primarily rural area, and does not include private, commercial, or business undertakings.	USDA	https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program
Emergency Loan Program	USDA's Farm Service Agency (FSA) provides emergency loans to help producers recover from production and physical losses due to drought, flooding, other natural disasters, or quarantine	USDA	https://www.fsa.usda.gov/programs-and-services/farm-loan-programs/emergency-farm-loans/index
Emergency Watershed Protection (EWP) Program	Provide assistance to relieve imminent hazards to life and property caused by floods, fires, drought, windstorms, and other natural occurrences	NRCS	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/landscape/ewpp/
Financial Assistance	Financial assistance to help plan and implement conservation practices that address natural resource concerns or opportunities to help save energy, improve soil, water, plant, air, animal and related resources on agricultural lands and non-industrial private forest land	NRCS	https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/
Emergency Management Performance Grants (EMPG) Program	Assist local, tribal, territorial, and state governments in enhancing and sustaining all-hazards emergency management capabilities	FEMA, U.S. DHS	https://www.fema.gov/emergency-management-performance-grant-program
Reimbursement for Firefighting on Federal Property	Provides reimbursement only for direct costs and losses over and above normal operating costs.	U.S. DHS	https://www.usfa.fema.gov/grants/firefighting_federal_property.html



Program	Description	Lead Agency	Website
Department of Homeland Security Grant Program (HSGP)	HSGP is composed of three interconnected grant programs including the State Homeland Security Program (SHSP), Urban Areas Security Initiative (UASI), and the Operation Stonegarden (OPSG). Together, these competitive grant programs fund a range of preparedness activities, including planning, organization, equipment purchase, training, exercises, and management and administration.	U.S. DHS	https://www.dhs.gov/homeland-security-grant-program-hsgp
Land & Water Conservation Fund	Matching grants to states and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies)	National Park Service	https://www.nps.gov/subjects/lwcf/index.htm
Land and Water Conservation Fund	Funding to states, local and conservation organizations for outdoor recreational development, renovation, land acquisition, and planning.	U.S. Department of the Interior	https://www.doi.gov/lwcf
USSBA	Small Business Administration (SBA) provides low-interest disaster loans to homeowners, renters, business of all sizes, and most private nonprofit organizations. SBA disaster loans can be used to repair or replace the following items damaged or destroyed in a declared disaster: real estate, personal property, machinery and equipment, and inventory and business assets.	Small Business Administration (SBA)	https://www.sba.gov/funding-programs/disaster-assistance
State, Local, and Private			
Acres for America	The National Fish and Wildlife Foundation's Acres for America program works to permanently conserve wildlife habitat. Since 2005, the Acres for America program has conserved almost 1.5 million acres across the United States and provided almost \$4 million in emergency funding to protect fish and wildlife after the 2010 Gulf of Mexico oil spill and Hurricane Sandy. The Acres for America program prioritizes conserving critical wildlife habitats, minimizing habitat fragmentation, providing public access, and maintaining natural resource-based economic activities. Eligible projects conserve a substantial amount of land and/or land of critical importance to its region. The program prioritizes applications for projects that are endorsed by national, state, and/or nonprofit entities as being a conservation priority.	National Fish and Wildlife Foundation	https://www.nfwf.org/programs/acres-america-program



Program	Description	Lead Agency	Website
Environmental Protection Fund: Local Waterfront Revitalization Program Grants	The NYS Department of State awards funding to local governments to revitalize coasts and inland waterways by preparing, updating, or implementing an LWRP. LWRPs serve as an opportunity to plan for coastal climate resilience to flooding, sea level rise, and storm surge via natural resource protection and waterfront land use.	NYS Department of State	https://dos.ny.gov/local-waterfront-revitalization-program
Partners for Places Funding Program	The Partners for Place program supports local government efforts toward climate preparedness and mitigation in the United States and Canada. Funding is given to teams including at least one local government sustainability office and one local place-based foundation.	Funders' Network for Smart Growth and Livable Communities and the Urban Sustainability Directors Network	https://www.fundersnetwork.org/partners-for-places/
Climate Adaptation Fund	The Wildlife Conservation Society's Climate Adaptation Fund provides grant awards to conservation non-profits across the United States to catalyze innovative, science-driven projects responding to the impacts of climate change on wildlife and people.	Wildlife Conservation Society	https://www.wcsclimateadaptationfund.org/



Mitigation Catalog

The table below provides a list of potential personal, corporate, and government scale mitigation actions for each of the identified natural hazards in the Genesee County HMP. Please note that this table is not intended to be a comprehensive list, but rather a starting point to help identify potential actions for participating jurisdictions. This catalog of potential actions was provided to participating jurisdictions at the Mitigation Strategy Workshop.

Table I-6. Genesee County Mitigation Catalog

Dam Failure		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Relocate out of dam failure inundation areas.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Elevate home to appropriate levels.• Increase Capability:<ul style="list-style-type: none">• Learn about risk reduction for the dam failure hazard.• Learn the evacuation routes for a dam failure event.• Educate yourself on early warning systems and the dissemination of warnings.	<ul style="list-style-type: none">• Manipulate the hazard:<ul style="list-style-type: none">• Remove dams.• Harden dams.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Replace earthen dams with hardened structures.• Relocate facilities out of dam failure inundation areas.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Floodproof facilities within dam failure inundation areas.• Increase Capability:<ul style="list-style-type: none">• Educate employees on the probable impacts of a dam failure.• Develop a continuity of operations plan.	<ul style="list-style-type: none">• Manipulate the hazard:<ul style="list-style-type: none">• Remove dams.• Harden dams.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Replace earthen dams with hardened structures.• Relocate critical facilities out of dam failure inundation areas.• Consider open space land use in designated dam failure inundations areas.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Adopt higher floodplain standards in mapped dam failure inundation areas.• Retrofit critical facilities within dam failure inundation areas.• Increase Capability:<ul style="list-style-type: none">• Map dam failure inundation areas.• Enhance emergency operations plans to include a dam failure component.• Institute monthly communications checks with dam operators.• Inform the public on risk reduction techniques.



Dam Failure		
		<ul style="list-style-type: none">• Adopt real-estate disclosure requirements for the re-sale of property located within dam failure inundation areas.• Consider the probable impacts of climate change in assessing the risk associated with the dam failure hazard.• Establish early warning capability downstream of listed high-hazard dams.• Consider the residual risk associated with protection provided by dams in future land use decisions.



Drought		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Consider stored water/captured water techniques during dry seasons.• Establishing an irrigation time/scheduling program or process so that all agricultural land gets the required amount of water. Through incremental timing, each area is irrigated at different times so that all water is not consumed at the same time. Spacing usage may also help with recharge of groundwater.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Drought resistant landscapes.• Reduce water system losses.• Regularly check for leaks to minimize water supply losses.• Install low-flow water saving showerheads and toilets.• Turn water flow off while brushing teeth or during other cleaning activities.• Adjust sprinklers to water the lawn and not the sidewalk or street.• Run the dishwasher and washing machine only when they are full.• Check for leaks in plumbing or dripping faucets.• Install rain-capturing devices for irrigation.• Install graywater systems in homes to encourage water reuse.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Consider stored water/captured water techniques during dry seasons.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Drought resistant landscapes.• Reduce private water system losses.• Identify alternate water supply sources.• Install low-flow water saving showerheads and toilets.• Adjust sprinklers to water the lawn and not the sidewalk or street.• Increase Capability:<ul style="list-style-type: none">• Practice active water conservation.• Develop a COOP.• Create a water conservation plan.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Ground Water Recharge through stormwater management.• Implement cloud seeding techniques during dry seasons.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Identify and create ground water back up sources.• Create /identify new impounded water supply points.• Developing new or upgrading existing water delivery systems to eliminate breaks and leaks.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Water use conflict regulations.• Reduce water system losses.• Distribute water saving kits.• Identify sites ideally suited for ground water recharge.• Implement stormwater retention in regions ideally suited for groundwater recharges.• Utilize drought resistant landscapes on community owned facilities.• Encourage citizens to take water-saving measures.• Increase Capability:<ul style="list-style-type: none">• Public education on drought resistance.• Identify alternative water supplies for time of drought. Mutual aid agreements with alternative suppliers.• Develop a drought contingency plan.



Drought		
<ul style="list-style-type: none">• Rotate crops by growing a series of different types of crops on the same fields every season to reduce soil erosion.• Planting “cover crops,” such as oats, wheat, and buckwheat, to prevent soil erosion.• Increase Capability:<ul style="list-style-type: none">• Practice active water conservation techniques.• Seek ways to operate wells in such a way to enhance their functional longevity and supply capability.		<ul style="list-style-type: none">• Develop criteria-"triggers" for drought related actions.• Improve accuracy of water supply forecasts.• Provide incentives to influence active water conservation techniques such as water user rate reductions.• Consider providing incentives to property owners that utilize drought resistant landscapes in the design of their homes.• Use of water buffalo tankers.• Promote well usage techniques that strive to enhance functional longevity and supply capability of private water supply wells.• Develop an ordinance to restrict the use of public water resources for non-essential usage, such as landscaping, washing cars, filling swimming pools, etc.



Earthquake		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate outside of hazard area (off soft soils).• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Retrofit structure (anchor house structure to foundation).• Secure household items that can cause injury or damage such as water heaters, bookcases, and other appliances.• Build to higher design standards.• Increase Capability:<ul style="list-style-type: none">• Practice "drop, cover and hold"• Develop household mitigation plan, such as creating a retrofit savings account, communication capability with outside, 72 hr. self-sufficiency during an event.• Increase capability by having cash reserves for reconstruction.• Become informed on the hazard and risk reduction alternatives available.• Develop a post-disaster action plan for your household.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate/relocate mission critical functions outside hazard area where possible.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Build redundancy for critical functions/facilities.• Retrofit critical buildings/areas housing mission critical functions.• Increase Capability:<ul style="list-style-type: none">• Adopt higher standard for new construction -- Consider "performance-based design" when building new structures.• Increase capability by having cash reserves for reconstruction.• Inform your employees on the possible impacts of earthquake and how to deal with them at your work facility.• Develop a Continuity of Operations Plan (COOP).	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate critical facilities or functions outside of hazard area where possible.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Harden infrastructure.• Provide redundancy for critical functions.• Adopt higher regulatory standards for structures.• Conduct "rapid screening" programs for critical facilities to identify facilities that may be particularly prone to EQ damage, then develop investigation/action plans to address such structures.• Increase Capability:<ul style="list-style-type: none">• Provide better hazard maps.• Provide technical information and guidance.• Enact tools to help manage development in hazard areas: tax incentives, information.• Include retrofitting/replacement of critical system elements in CIP.• Develop strategy to take advantage of post disaster opportunities.• Warehouse critical infrastructure components such as pipe, power line, and road repair material.



Earthquake		
		<ul style="list-style-type: none">• Develop and adopt a Continuity of Operations / Continuity of Government Plan (COOP/COG).• Initiate triggers guiding improvements such as: (< 50% substantial damage/improvements).• Further enhance seismic risk assessment to target high hazard buildings for mitigation opportunities.• Develop a post disaster action plan that includes a grant funding and debris removal components.• Utilize warning systems.• Educate builders and developers on seismic construction standards.



Epidemic		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Proper hygiene.• PPE.• Social distancing.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Focus on personal health.• Increase Capability:<ul style="list-style-type: none">• Storage of PPE.• Storage of supplies and food to reduce need to enter public spaces.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• PPE.• Social distancing.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Distanced work environment.• Regular cleaning of work environment.• Increase Capability:<ul style="list-style-type: none">• Storage of PPE.• Equipment for monitoring.• Trainings for staff.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• PPE.• Social distancing.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Distanced work environment.• Regular cleaning of work environment.• Increase Capability:<ul style="list-style-type: none">• Storage of PPE.• Equipment for monitoring/treatment.• Trainings for staff.• Public outreach.



Extreme Temperature		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Increase tree plantings• Installation of green roofs to provide shade and remove heat• Use cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold• Increase Capability:<ul style="list-style-type: none">• None	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Increase tree plantings• Installation of green roofs to provide shade and remove heat• Use cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold• Increase Capability:<ul style="list-style-type: none">• Set rules restricting outdoor work during extreme temperature events	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Increase tree plantings• Encourage the installation of green roofs to provide shade and remove heat• Encourage the use of cool roofing products that reflect sunlight and heat away from a building• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Require minimum temperatures in housing/landlord codes• Increase Capability:<ul style="list-style-type: none">• Educate citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur• Establish warming and cooling centers• Establish extreme temperature planning in emergency operation plans• Create a database to track those individuals at high risk of death such as the elderly, homeless, etc.



Flood		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Clear stormwater drains and culverts.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate or re-locate outside of hazard area.• Institute low impact development techniques on property.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Retrofit existing structures and utilities above Base Flood Elevation (BFE).• Floodproof existing structures (wet- or dry floodproofing).• Store hazardous materials above BFE or outside of floodprone areas.• Increase Capability:<ul style="list-style-type: none">• Develop household mitigation plan, such as retrofit savings, communication capability with outside, 72-hr. self-sufficiency during and after an event.• Buy flood insurance.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Clear stormwater drains and culverts.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate business critical facilities or functions outside hazard area.• Institute low impact development techniques on property.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Build redundancy for critical functions/ retrofit critical buildings.• Provide flood-proofing measures when new critical infrastructure must be located in floodplains.• Harden structures and infrastructure (wet and dry-floodproofing).• Store hazardous materials above BFE or outside of floodprone areas.• Increase Capability:<ul style="list-style-type: none">• Increase capability by having cash reserves for reconstruction.• Develop and adopt a Continuity of Operations Plan (COOP).• Solicit "cost-sharing" through partnerships with private sector stakeholders on projects with multiple benefits.• Dam owner/operators should continue to be aware of and understand dam inspection and reporting requirements.• Ensure that all dam EAP's are kept in compliance with State Regulations.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Clear stormwater drains and culverts• Dredging, levee construction, providing retention areas.• Structural flood control: levee's, dams, channelization, revetments.• Construct regional stormwater control facilities.• Lead and develop a county-wide stream clearing strategy including the development of thresholds for response/action.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Locate/re-locate critical facilities outside of hazard area.• Acquire or relocate identified repetitive loss properties.• Promote open space uses in identified high hazard areas via techniques such as: PUD's, easements, setbacks, greenways, sensitive area tracks.• Adopt land development criteria such as PUD's, Density transfers, clustering.• Institute low impact development techniques on property.• Acquire vacant land or promote open space uses in developing watersheds to control increases in runoff.• Pass an ordinance to incorporate additional zoning classifications into flood zones within each municipality.• Increase floodplain standards within municipal ordinances and include



Flood		
		<p>provisions for enforcing best practice standards.</p> <ul style="list-style-type: none">• Consider increasing minimum freeboard beyond state requirements.• Continue development application reviews by County Planning Board to reduce risky development practices.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Harden structures and infrastructure (wet and dry-floodproofing).• Provide redundancy for critical functions and infrastructure.• Adopt appropriate regulatory standards such as cumulative substantial improvement/damage, freeboard, lower substantial damage threshold, compensatory storage.• Stormwater management regulations and master planning.• Adopt "no-adverse impact" floodplain management policies that strive to not increase the flood risk on down-stream communities.• Participate in the Community Rating System (CRS).• Implement as-built regulatory requirements.• Implement site review ordinances/requirements.• Establish stream maintenance programs with stakeholders (e.g. Soil and Water Conservation District) - support county leads of such efforts.



Flood		
		<ul style="list-style-type: none">• Incorporate retrofitting/replacement of critical facilities and infrastructure in Capital Improvement Plans (CIPs).• Promote the use of vegetation/plants as green erosion control measures to reduce localized flooding.• Work with environmental groups to address removal of debris, log jams, etc. in flood vulnerable stream sections.• Increase Capability:<ul style="list-style-type: none">• Produce better hazard maps, and improve access to flood hazard mapping• Capture/survey "high-water" marks during flood events.• Provide technical information and guidance on appropriate mitigation options available to businesses and homeowners.• Enact tools to help manage development in hazard areas (stronger controls, tax incentives, information).• Establish an additional layer of zoning within flood hazard areas.• Develop strategy to take advantage of post disaster opportunities.• Improve compliance with and enforcement of the NFIP.• Develop mitigation partnerships with regional stakeholders.• Join Community Rating System (CRS) program or improve level of participation in CRS.• Develop and implement a public information strategy for flood hazard



Flood		
		<p>awareness, flood insurance (NFIP) and mitigation.</p> <ul style="list-style-type: none">• Maintain existing data as well as gather new data needed to define risks and vulnerability.• Create a building and elevation inventory of structures in the floodplain• Identify flood prone areas that may be in need of new flood studies.• Establish a program to identify and educate owners of flood-prone properties of potential mitigation options (e.g. elevations, relocations).• Charge a hazard mitigation fee on all new permits to create a hazard mitigation funding source for initiatives or grant cost share requirements.• Integrate floodplain management policies into other planning mechanisms within the planning area.• Establish a Stormwater Utility to deal with urban drainage/flooding issues.• Establish incentives to promote flood hazard mitigation of private property (e.g. permit fee waivers).• Adopt ordinances/standards for cumulative damages and/or improvements.• Upgrade NFIP Floodplain ordinance, as well as other ordinances to current or above current state and federal standards.• Develop and adopt a COOP.• Join "Storm Ready" Program.



Flood		
		<ul style="list-style-type: none">• Participate in county and regional training programs.• Provide additional training/certification to NFIP floodplain administrators and code officials.• Implement annual training to account for turnover of municipal officials.• Maintain and enhance flood forecasting ability, including the establishment and maintenance of critical stream gages.• Explore grant funding opportunities and potential partnerships to help maintain existing gages and install additional gages to improve forecasting and flood warning ability.• Promote awareness and participation in alert systems.• Support and participate in regional flood management efforts.• Support and implement hazard disclosure for the sale/re-sale of property in identified risk zones.• Provide continued and enhanced training for emergency responders.• Establish a revolving "bank" or budget line item to fund grant application support.• Continue to review updated Flood Insurance Rate Maps to ensure accuracy as well as maintaining lines of communication with homeowners to make them aware of potential changes related to their property status.• Provide trainings for FPA's on the NFIP/Floodplain Best Practices and



Flood		
		<p>also pursue CFM accreditation for municipal FPA's.</p> <ul style="list-style-type: none">• Build and maintain relationships to develop regional watershed/floodplain mitigation solutions.• Pursue grant funding opportunities to fund repairs of catchments and infrastructure on a proactive basis.• Explore grant funding opportunities related to climate change to fund mitigation projects.



Hazardous Materials		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Identify and eliminate sources of potential hazardous material spills.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Increase distance between hazardous material sites and development.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• None• Increase Capability:<ul style="list-style-type: none">• Personal planning for potential event.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Identify and eliminate sources of potential hazardous material spills.• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• None• Increase Capability:<ul style="list-style-type: none">• Increase inspection of hazardous material facilities and transport vehicles.• Conduct training for response.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Identify and eliminate sources of potential hazardous material spills.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Increase inspection of hazardous material facilities and transport vehicles.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• None• Increase Capability:<ul style="list-style-type: none">• Increase inspection of hazardous material facilities and transport vehicles.• Conduct training for response.• Public outreach.



Severe Storm		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Retrofit structures (improved roofing, glazing, insulation, etc.).• Provide for redundant heat and power.• Contact municipality or utilities to trim or remove trees that could affect power lines.• Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation Program.• Increase Capability:<ul style="list-style-type: none">• Improve awareness of impending severe weather (e.g. obtain a NOAA weather radio).• Promote 72-hour self-sufficiency.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Relocate critical infrastructure, such as power lines, underground.• Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.• Retrofit pipes including locating water pipes on the inside of building insulation or keeping them out of vulnerable spaces to extreme cold.• Increase Capability:<ul style="list-style-type: none">• Contact municipality or utilities to trim or remove trees that could affect power lines.• Create redundancy (e.g. backup generators).• Improve awareness of impending severe storm (e.g. obtain a NOAA weather radio).• Develop a Continuity of Operations Plan (COOP).• Monitor impending severe storm events so that you can release employees in such a manner as to not negatively impact emergency response personnel/services.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Harden infrastructure such as locating utilities underground.• Trimming trees back from power lines.• Designate and strengthen critical road sections and bridges.• Adopt ordinances that regulate the type and quantity of trees planted near utility lines.• Relocate critical infrastructure, such as power lines, underground.• Increase Capability:<ul style="list-style-type: none">• Support programs such as "Tree Watch" that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.• Enforce building codes.• Increase communication alternatives.• Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.• Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines.• Promote awareness and participation in alert systems.



Severe Storm		
		<ul style="list-style-type: none">• Provide NOAA weather radios to the public.• Create/Enhance "mutual aid" agreements for response to all emergencies.• Create/identify evacuation routes to be utilized during severe storm events.• Develop debris management plans.• Join "Storm-Ready" program.• Provide early warning of impending severe storm events to identified critical or essential facilities. This would include facilities such as large employments centers, schools, hospitals.• Promote emergency power supplies to private property.• Improve, expand, or harden communications facilities and services.• Recruit additional emergency personnel or use mutual aid agreements.• Increase sheltering capabilities.• Increase capability to respond to power outages and downed power lines. Establish partnerships with utility providers through pro-active planning.



Severe Winter Storm		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Plant appropriate trees near home and power lines ("Right tree, right place" National Arbor Day Foundation).• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Insulate House to provide greater thermal efficiency and reduce heat loss.• Provide redundant heat and power.• Insulate Structure.• Ensure natural gas input/release valves do not get covered in snow.• Increase Capability:<ul style="list-style-type: none">• Trim or remove trees that could affect power lines.• Prepare emergency food and supplies to be self-sufficient for at least 72 hours in the event of a winter storm.• Be aware of inclement weather conditions and move your vehicles off the street as winter storm systems approach.• Retrofit structures.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Relocate critical infrastructure, such as power lines, underground.• Reinforce or relocate critical infrastructure such as powerlines so that it meets performance expectations.• Install tree wire.• Increase Capability:<ul style="list-style-type: none">• Trim or remove trees that could affect power lines.• Create redundancy in utilities and communications.• Develop a Continuity of Operations Plan (COOP) to address operations before, during and after winter storm events.• Utilize weather radios at the work place to keep your employees aware of severe weather conditions.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Harden infrastructure such as locating utilities underground where appropriate.• Trimming trees back from power lines.• Designate snow routes and strengthen critical road sections and bridges.• Adopt codes and regulations that address the issues of parking of vehicles along roadways during winter storm events.• Develop or enhance the capacity/capability of stormwater conveyance systems.• Provide backup power sources at vital critical facilities.• Increase Capability:<ul style="list-style-type: none">• Support programs that proactively manage problem areas by use of selective removal of hazardous trees, tree replacement, etc.• Establish and enforce building codes that require all roofs to withstand snow loads--Develop/Improve/Enforce building Codes in Hazard Areas.• Increase communication alternatives.• Modify land use and environmental regulations to support vegetation management activities that improve reliability in utility corridors.



Severe Winter Storm		
		<ul style="list-style-type: none">• Modify landscape and other ordinances to encourage appropriate planting near overhead power, cable, and phone lines.• Provide weather radios to vulnerable populations.• Enhance public awareness campaigns to address issues of alert and warning and actions to take during winter storm events.• Utilize the best available technology to enhance the warning systems for all winter storm events.• Coordinate winter storm warning capabilities and the dissemination of warning amongst those agencies within the planning area with the highest degree of capability.• Encourage local ordinances for planting tree near lines and join Tree City USA.• Increase tree management programs.• Join the Community Rating System.• Join "Storm-Ready".• Retrofit critical structures and promote hazard resistant construction.• Keep open communications and education of hazards for mobile home communities.• Retrofit above-ground utilities to underground facilities if appropriate.• Create a salt reserve or research alternates to stretch salt reserve.• Ensure accessibility to hospitals.



Severe Winter Storm		
		<ul style="list-style-type: none">• Provide better debris logistics and removal.• Provide better communication systems and back-up communication systems to inform public of hazards and to communicate during the hazard event.



Transportation Accidents		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Utilize public transportation• Increase Capability:<ul style="list-style-type: none">• Be aware of conditions that may cause transportation accidents	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Remove over-hanging and dead trees that have potential to fall in roadways• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Travel outside of high-trafficked times• Increase Capability:<ul style="list-style-type: none">• Incorporate standardized trainings in standard operating procedures• Educate operators on safety protocols	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Evaluate speed limits• Increase Capability:<ul style="list-style-type: none">• Perform traffic studies• Incorporate standardized trainings in standard operating procedures• Educate operators on safety protocols



Utility Interruption		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Purchase personal home generators• Install solar panels at homes• Have preparedness kits for power outages (candles, flashlights, solar batteries, non-perishable foods, etc.)• Increase Capability:<ul style="list-style-type: none">• Be aware of conditions that may cause utility failures	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Have redundancies within the power grid• Reduce exposure to the hazard:<ul style="list-style-type: none">• Remove trees that have potential to impact power lines• Bury power lines• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Maintain power infrastructure to high standards• Increase Capability:<ul style="list-style-type: none">• Utility providers to collaborate with government and customers	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Backup power for municipal facilities• Increase Capability:<ul style="list-style-type: none">• Build strong relationships with Utility providers• Educate and public outreach about proper generator use



Wildfire		
Personal Scale	Corporate Scale	Government Scale
<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• Clear potential fuels on property; dry, overgrown underbrush; diseased trees.• Reduce exposure to the hazard:<ul style="list-style-type: none">• Clean and maintain defensible space around structures.• Locate outside hazard area.• Mow regularly.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Create and maintain defensible space around structures, provide water on site.• Use fire-retardant building materials.• Create defensible spaces around your home.• Increase Capability:<ul style="list-style-type: none">• Employ Firewise techniques to safeguard your home.• Identify alternative water supply points proximate to your home such as swimming pools, lakes, streams.• Support your local fire department.• Be aware of weather conditions that support/enhance the probability of wildfires.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• None• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Create and maintain defensible space around structure and infrastructure and provide water onsite.• Use fire-retardant building materials.• Provide stored water to be utilized for firefighting with appropriate fire department connections at facilities not equipped with fire hydrants or inadequate fire hydrant spacing.• Increase Capability:<ul style="list-style-type: none">• Support Firewise community initiatives.	<ul style="list-style-type: none">• Manipulate the Hazard:<ul style="list-style-type: none">• None• Reduce exposure to the hazard:<ul style="list-style-type: none">• Clear fuels (dry underbrush, diseased trees) on land that can trigger and maintain wildfires.• Implement Best Management Practices on public lands.• Reduce vulnerability to the hazard:<ul style="list-style-type: none">• Create and maintain defensible space around structure and infrastructure.• Higher regulatory standards.• Establish water main supply and hydrants in unhydranted areas.• Decrease hydrant spacing.• Increase Capability:<ul style="list-style-type: none">• More public outreach and education efforts including an active "Firewise" program.• Identify fire response and alternative evacuation routes.• Seek alternative water supplies in urban wildland interface areas.• Become a "Firewise" community.• Increase capability to fight wildfires utilizing equipment that can support wildfire fighting such as: tankers, engines with "pump-and-run" capabilities, dump tanks for tanker shuttle operations.



Wildfire		
		<ul style="list-style-type: none">• Develop/implement wildfire management plans.• Establish Mutual Aid Agreements with the Tender Task Force• Develop a Water Supply Plan.

APPENDIX J: NYS DHSES PLANNING GUIDANCE



This appendix includes the 2020 NYS DHSES planning standards and guidelines for hazard mitigation planning.



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-guide_042022.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 offices at 518-292-2304.

Additional contact information will be provided to sub-recipients for more direct assistance.

**Please note:**

Jurisdiction is used to describe all government entities within the boundaries set forth in the Multi-Jurisdictional Plan (typically County-wide), including the County itself, as well as cities, towns, villages and potentially tribes that choose to join a multi-jurisdictional plan.

Special Flood Hazard Area (SFHA) is defined as the area that will be inundated by the flood event having a 1-percent change of being equaled or exceeded in a given year (previously known as the 100-year flood event).

1. Assess Critical Facilities

Critical facilities must remain accessible and functional before, during and after disasters to meet the jurisdictions Continuity of Government (COG) and Continuity of Operations (COOP) standards, and to support important emergency, government and sheltering functions.

Jurisdictions must identify all critical facilities, assess their vulnerabilities, and evaluate and ensure they are protected to a 0.02% chance (500-year) flood event. Critical facilities that are located in an SFHA and/or have been previously flooded, must be protected against a repeat of that flood or to the 0.02% chance flood event, whichever provides the greater protection.

- The plan must document the name of facility, type of facility, jurisdictional location, and exposure to a 1% (100-year) and 0.02% chance event.
- The plan must document those critical facilities are protected to a 0.02% flood event, or previous worst case flood event. For those that do not meet this level of protection, the plan must include an action to meet or go beyond this criterion or explain why it is not feasible to do so. Going beyond this criterion is optional but may be wise to protect against a future worst case due to climate change.

2. Include Jurisdictional Annexes

Jurisdictional annexes provide a unique, stand-alone guide to mitigation planning for each jurisdiction.

The plan must be organized so that there is an annex for every jurisdiction within the county's borders, including the County.

- The plan must include a table in the Introduction section clearly identifying all jurisdictions and which are seeking FEMA approval.
- The annex for each jurisdiction seeking FEMA approval must include the following:
 - Contact Information;
 - Jurisdiction Profile;
 - Hazard Identification (specific to the jurisdiction);
 - Hazard Event History;
 - National Flood Insurance Program (NFIP) Summary (to meet Federal Standards);
 - Critical Facilities Information (to meet F1);
 - Jurisdiction/public identified vulnerabilities;
 - Additional public involvement;
 - Capabilities Assessment;
 - Mitigation Strategy:
 - All identified previous mitigation activities with current status;
 - All proposed mitigation activities (both new and carried forward, to meet F3)
- The annex for each non-participating jurisdiction (those not seeking FEMA approval at this time), must include a cover sheet and should include as much information as is available.

**3. Develop Mitigation Actions**

Projects that are well developed and documented in one place are more quickly identifiable for selection when grants become available, making implementation that much more likely.

Within each jurisdictional annex, jurisdictions must develop a minimum of two (2) new or carryover (not started) proposed mitigation actions that include all information requested in the NYS DHSES LHMP Proposed Action spreadsheet. For jurisdictions containing an SFHA, one (1) of these actions must be for a project that addresses flooding.

4. Post Draft Plan Online

Allowing the public to comment on the draft plan increases awareness about how mitigation saves lives and reduces risk and allows a final opportunity for public input.

The public must have an opportunity to view and comment on the draft plan prior to submittal.

- The draft plan must be posted in full (except for discretionary sensitive information) on an existing county/jurisdiction website, or one created for the purpose of soliciting comments, for 30 days or the time prescribed by local law, whichever is greater, and the plan must describe efforts made to solicit public comments from potentially underserved areas where residents may not have access to a computer to view the website. The website must clearly identify how the public can comment on the plan, to include either specific contact information to send comments or a user-friendly form or survey.

After NYS DHSES and FEMA Approval

- Once designated Approvable Pending Adoption (APA) or Approved by FEMA, the final plan must be placed on the same website (cited above) in its entirety (except for discretionary sensitive information).
- Final payment will occur only after 50% of the participating jurisdictions have adopted the plan and provided adoption resolutions to NYS DHSES. For county-led hazard mitigation planning efforts, the county must be one of the adopting jurisdictions.

The chart below shows the requirements as they appear on the plan review tool used by NYS DHSES and FEMA Region II to determine whether a submitted plan meets federal and state requirements.

1. REGULATION CHECKLIST		Location in Plan		Not
Regulation (44 CFR 201.6 Local Mitigation Plans)		(section and/or page number)		Met
ELEMENT F. ADDITIONAL STATE REQUIREMENTS – NYS HAZARD MITIGATION PLANNING STANDARDS				
These are required actions for plans developed with NYS DHSES-administered funds.				
H1. Do jurisdictions identify critical facilities, assess vulnerabilities, and ensure protection to a 0.02% flood event or worst-case scenario?				
H2. Does the plan include an annex for every jurisdiction within the County's boundaries?				
H3. Within each jurisdictional annex, are projects developed in accordance with the NYS DHSES Proposed Projects Table?				
H4. Was the draft plan posted for public comment?				
Note: The applicant is required to address the 2022 NYS Hazard Mitigation Planning Standards as required actions for a hazard mitigation plan developed with funds administered by NYS DHSES.				
ELEMENT H: REQUIRED REVISIONS				
<u>Please see opportunities for improvement</u>				