

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: <u>click here</u> 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 | <u>tim.yaeger@geneseeny.gov</u>

Tetra Tech Project Contacts

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

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



Purpose o	f Meeting:	Steering Committee Risk Assessment Mee	eting	
Location o	f Meeting:	Virtual via Teams		
Date of M	eeting:	December 9, 2024 @ 2:00 P.M.		
Attendees:	 Tam Genesee Tim Gary Genesee Felip Genesee Briar Joe (Fran Com Genesee Craig 	County Manager's Office mi Ferringer, Deputy County Manager County Emergency Management Services Yaeger, Coordinator Patnode, Deputy Coordinator County Planning Department e Oltramari, Director County Sheriff's Office n Frieday, Chief Deputy Graff, Chief Deputy k Riccobono, Director of Emergency munications County Highway Department g Smith, Deputy Highway Superintendent, Genesee nty Highway Department	 Genesee County Economic Mark Masse, Senior VP Genesee County Public Heat Paul Pettit, Public Heat Genesee County Soil & Watt Jared Elliott, Senior Fiet Batavia (C) Josh Graham, Fire Chiet Tetra Tech Jessica Stokes, Project Emily Vassallo, Lead Plate 	of Operations I th th Director er Conservation District d Manager f Manager
Agenda Sui	р	ne purpose of the meeting was to provide an ov ublic and stakeholder outreach efforts, review t nd introduce the SWOO exercise to the Steering	he risk assessment results, in	
Item No.		Description		Action item(s):
1	Introduction	5		-
2		 iew Municipal Participation Identify outstanding worksheets Outreach and Engagement Post links on social media and department Stakeholder and neighboring municipalities been distributed Make efforts to reach out to: General Public Stakeholders Neighbors Socially Vulnerable Populations 		 Steering Committee 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
				1
3		nent Overview is defined as a function of:		



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



4	Risk Assessment Results	
	• 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	
	• 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 <i>climate change</i> will affect future occurrences based on	
	best available data.	
	• The degree to which existing <i>capabilities</i> (the ability of your community to	
	respond to the hazard based on ordinances, mitigation strategies and	_
	procedures, and readiness) decrease overall risk.	
	Ranking:	
	 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)	
	• 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	
	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	
	Questions/Discussion Tim: Question on if we/GIS received the new preliminary/draft FIRMs.	Tatua Tash
		Tetra Tech
8	Gary: 58,204 is 2022 ACS population for the County. Time More of a focus on other torrarism in the Torrarism beyond profile	Follow up with GIS about ACS numbers and flood
	Tim: More of a focus on cyber-terrorism in the Terrorism hazard profile Tim: Fix shalling of juridiction	
	Tim: Fix spelling of jurisdiction	data maps used
	County agreed with all of the hazard rankings	







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

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 :

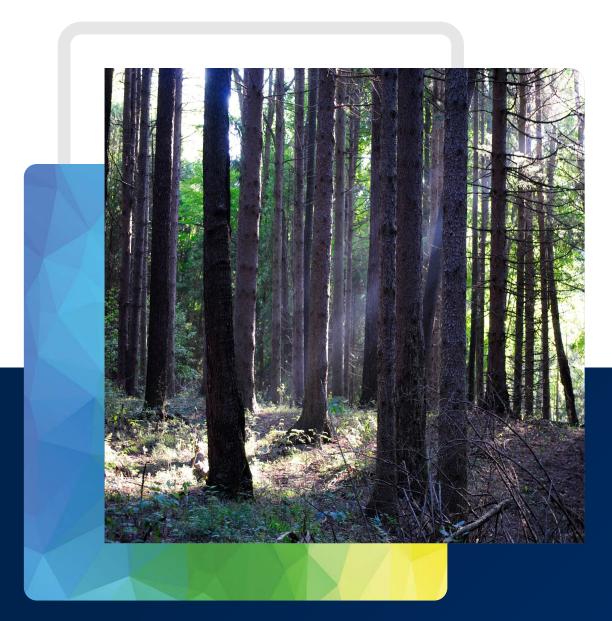
- Hazard
 - Source of potential danger or adverse condition
- Exposure
 - Manmade or natural features that are exposed to the hazard
- Vulnerability
 - Damage susceptibility of the exposed features
- Adaptive Capacity (or capability)
 - Plans/policies
 - Response/recovery
 - Financial resources

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

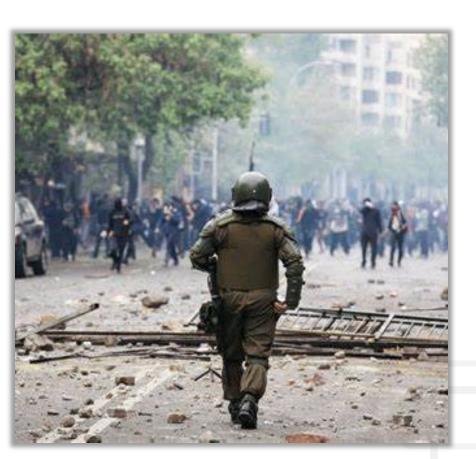




Preliminary Risk Assessment Results



- Civil unrest 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.

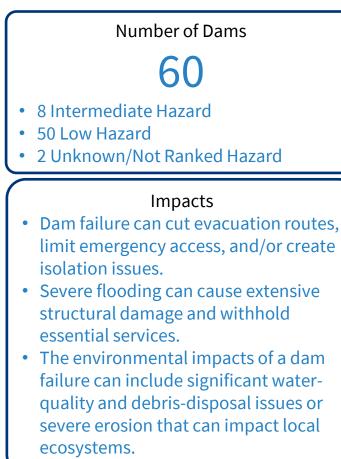


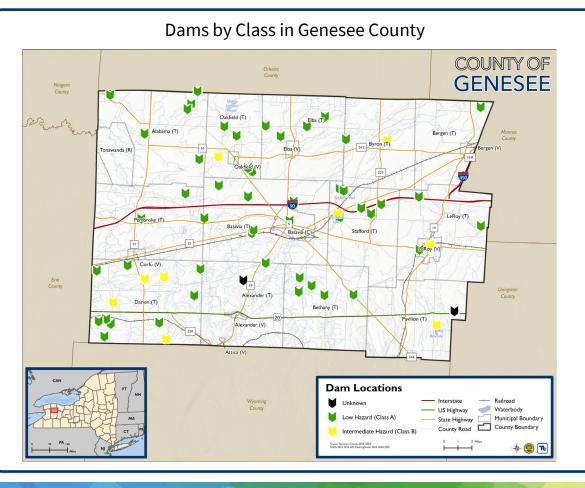


Dam Failure



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.





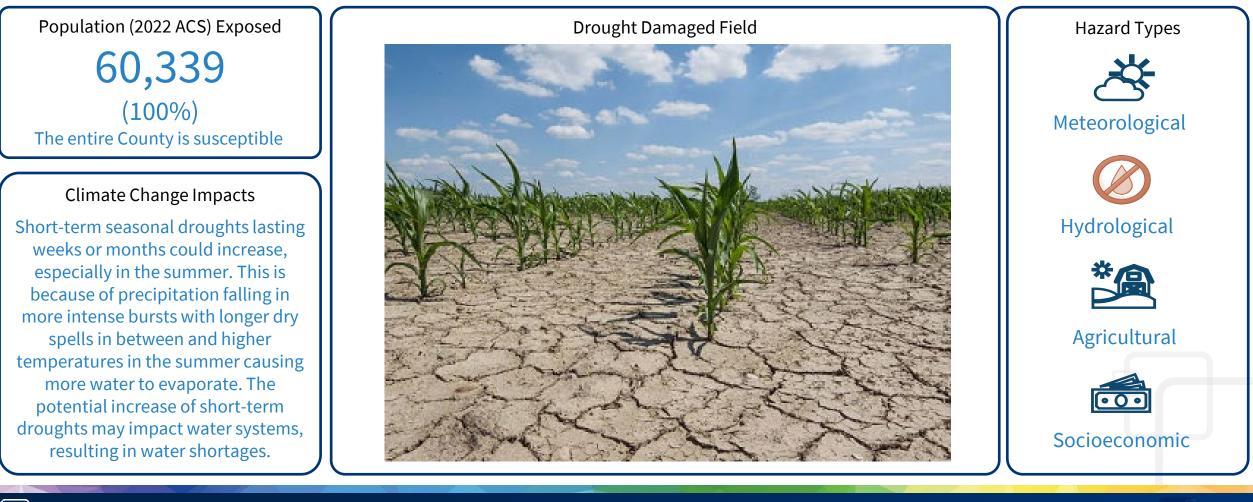
Climate Change Impacts

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.





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

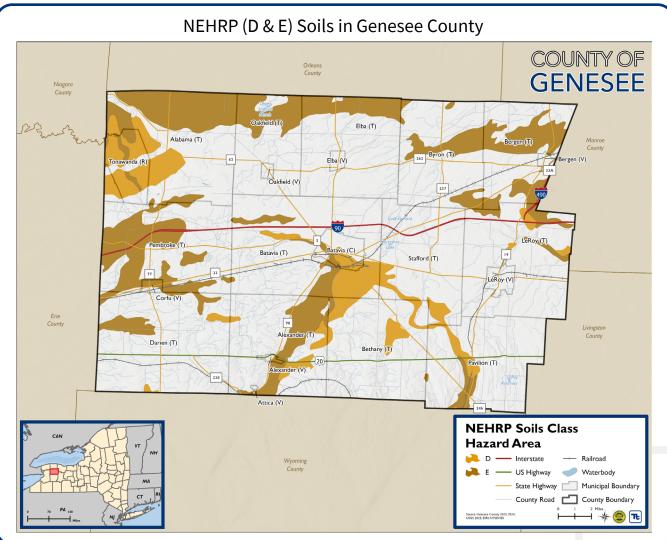






Earthquakes in Genesee County are a low-probability and high-consequence event. An earthquake can have devastating impacts on the County. Ground shaking can lead to the collapse of buildings and bridges and disrupt gas lines, electricity, and phone service.

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







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

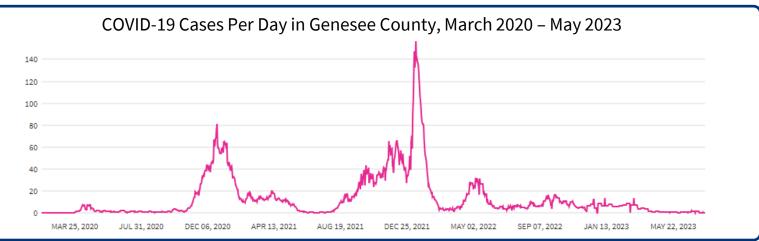
The entire County is susceptible. As population density increases in the County, so too will the probability of a disease outbreak event to occur.

Vulnerable Populations

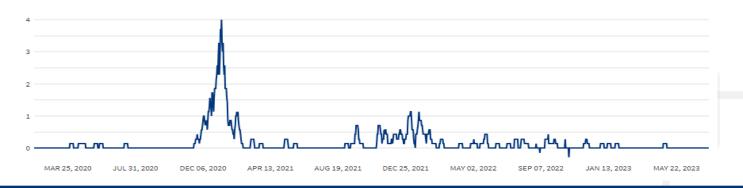
- Healthcare providers and first responders have an increased risk of exposure due to their frequent contact with infected populations.
- The elderly and immunocompromised individuals may have increased vulnerability to becoming infected or experience exacerbated impacts depending upon the disease.

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.



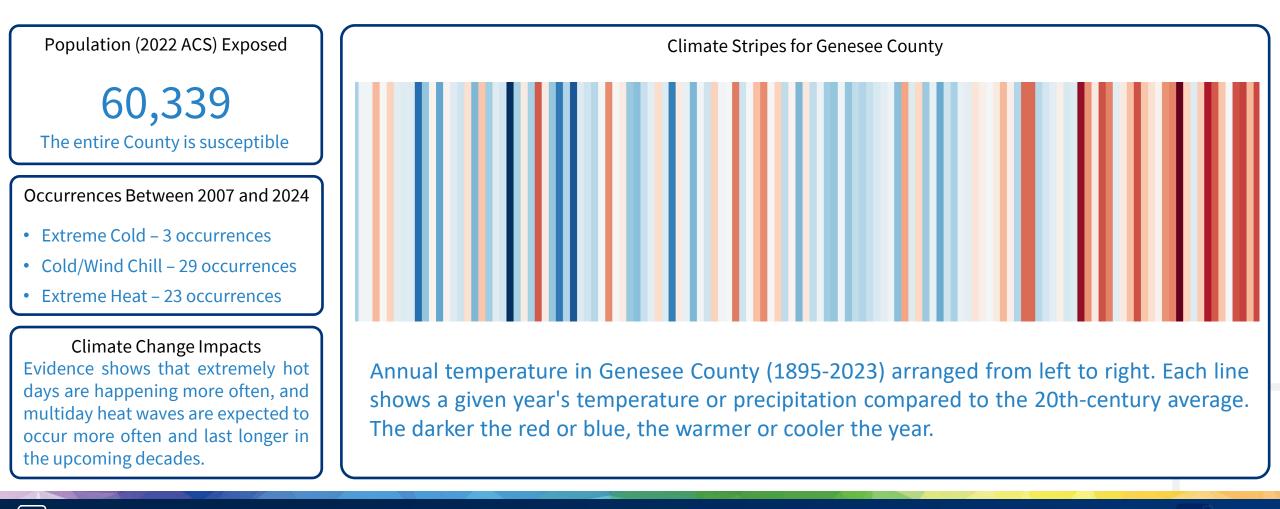
COVID-19 Deaths Per Day in Genesee County, March 2020 – May 2023



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.



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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.

In 1% Annual Chance Flood Area

Population Exposed

Flood

5,057 In 0.2% Annual Chance Flood Area

Flood Building Replacement Cost Value \$1,303,600,253

In 1% Annual Chance Flood Area

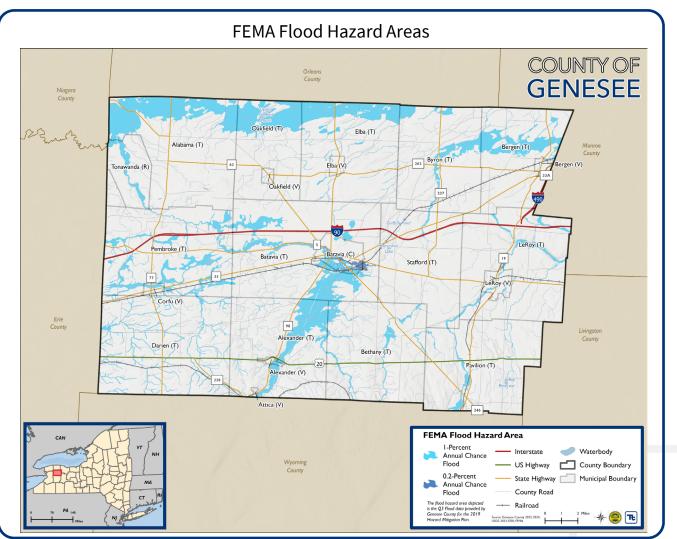
\$1,773,285,352

In 0.2% Annual Chance Flood Area

3,800

Land Exposed to Flood Hazard (acres) 38,861 In 1% Annual Chance Flood Area 39,312 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





1,590

major highway

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

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.

Community Lifelines Exposed



689

1,829 Unique radius for SARA Sites

Number of Buildings Exposed

21,917

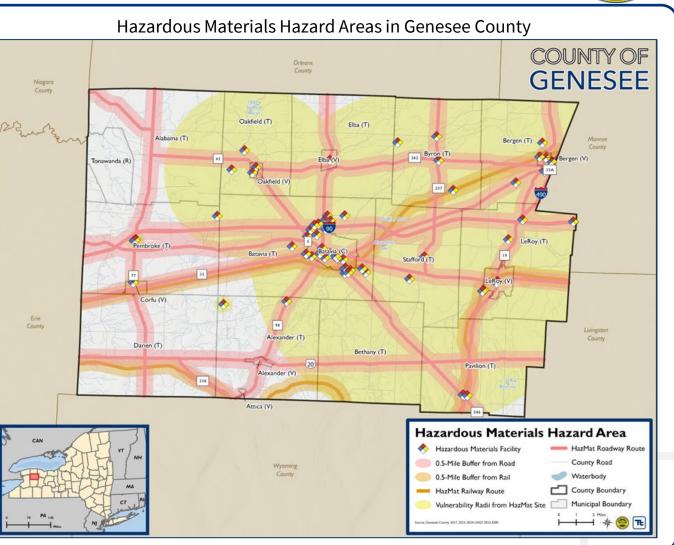
Within 0.5 miles of a major highway

9,001

Within 0.5 miles of a rail line

25,720

Unique radius for SARA Sites





Severe Storm



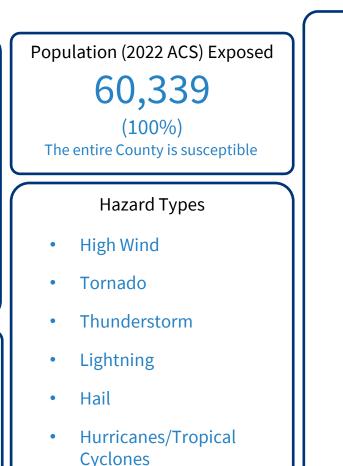
Severe weather can occur anywhere in the County at any time and have the potential to be life-threatening. It is critical for the community to prepare and be aware of forecasts in their local jurisdictions.

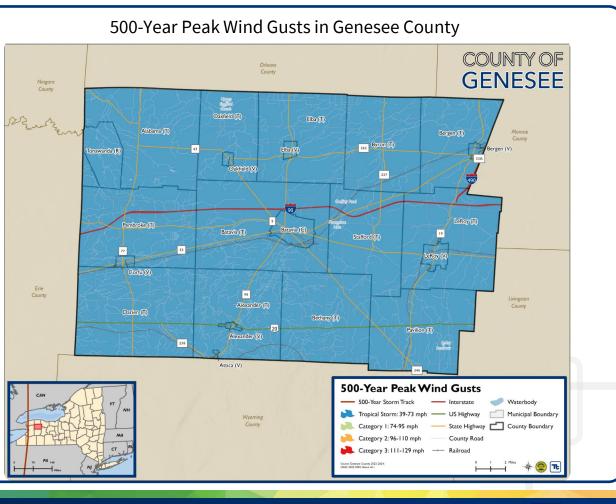
A strong October storm produced 1-3 inches of rain and wind gusts of 61 mph which produced substantial property damage, road closures and power outages. A total of \$575,000 in property damages were reported.

Notable Occurrences

Potential Impacts

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





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

Hazard Types

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



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.

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.



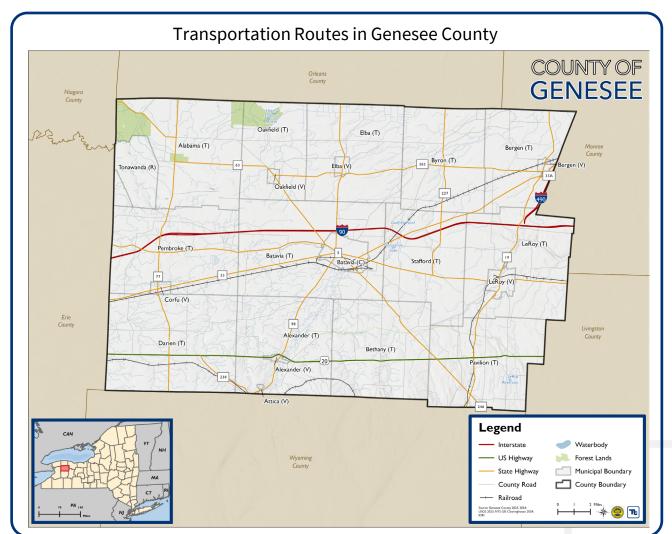
Transportation Accident

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 / 60,33	
The entire County i	
Hazard T	
Vehi	icular Rail Freig Rail Pass
Avia	tion Civil Use Other air
Rail	
	Bridges i Bridges i
2023 Transportati	
2,135 0	1 Total Brid
Vehicle Aviatio	n Rail

Transportation Ove	erview
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





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.

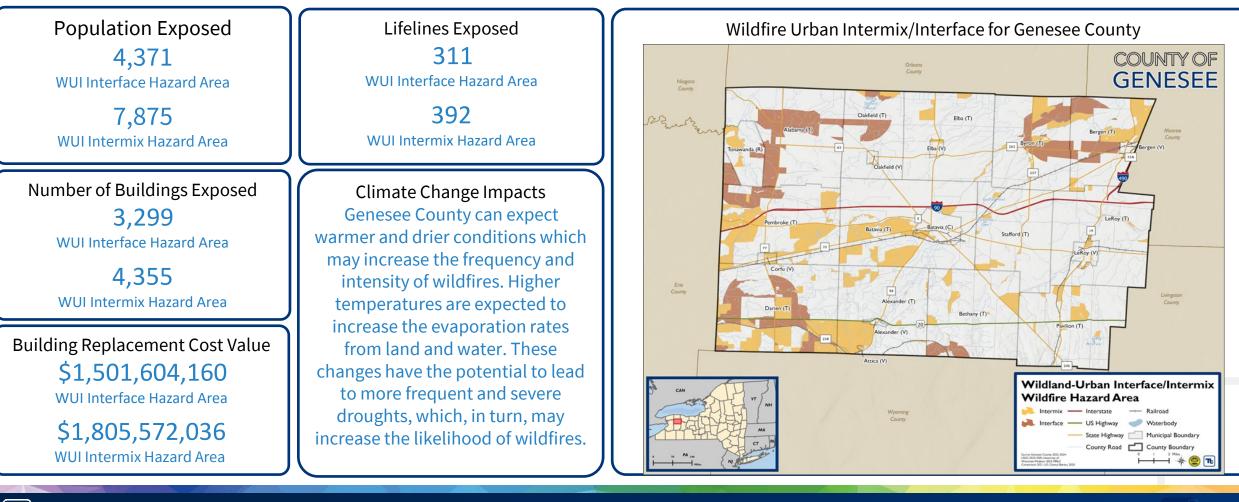
Climate Change Impacts New York State has warmed more rapidly than the national average, and winter is warming faster than other seasons. Evidence shows that hot days are happening more often, and multiday heat waves are expected to occur more often and last longer in the upcoming decades which may impact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

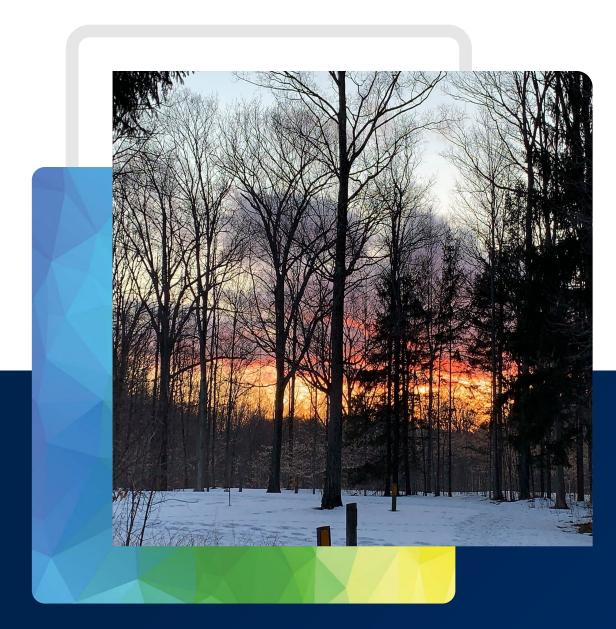






Wildfires can occur at any time of the year but are most likely in Genesee County during a drought, and can occur in fields, grass, and brush as well as in the forest itself. Under dry conditions or droughts, wildfires have the potential to burn forests as well as croplands. Wildfires can have impacts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





Hazard Rankings

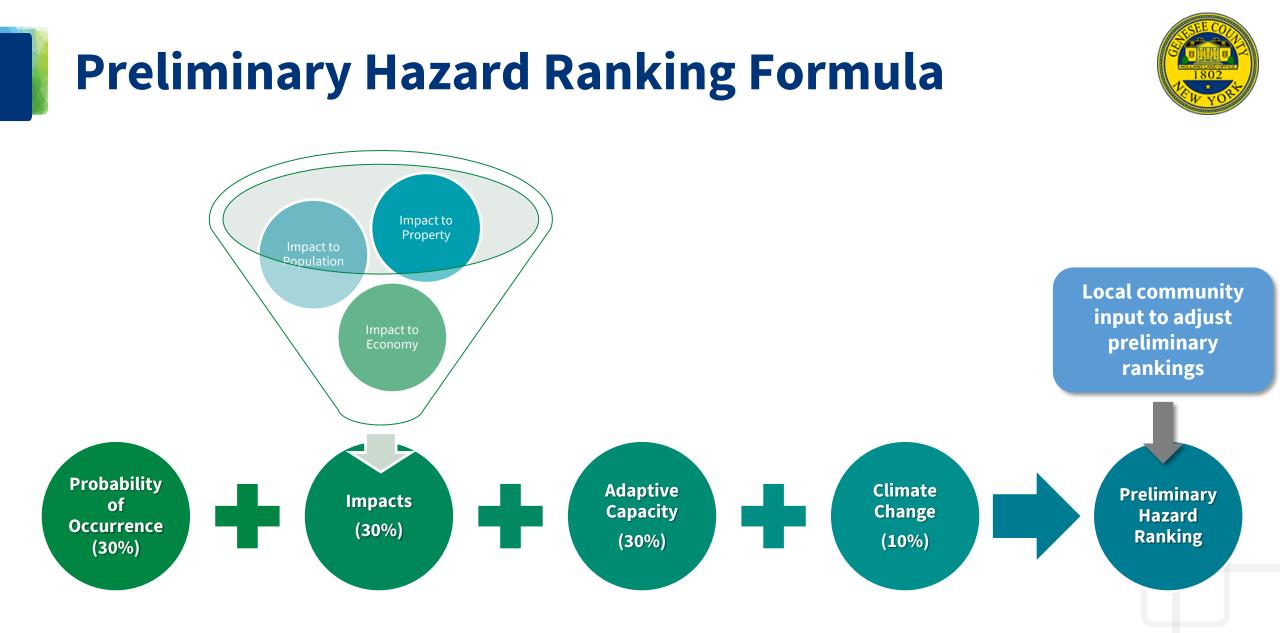
Review the calculated hazard rankings and provide your feedback.

Preliminary Hazard Ranking Methodology



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







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

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

Review Preliminary Rankings

Genesee County | Hazard Mitigation Plan 2025 Update Hazard Ranking Worksheet

Impacts

robability ol Occurrence

44

Adaptive Capacity (xm

Climate Change Impacts (10 Hazard Ranking

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.

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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

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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		

2



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	

3

Note: "Adaptive capacity was assumed Moderate for all hazards

1	Genesee County Hazard Mitigation Plan

Genesee	County	Hazard	Mitigation	Plan
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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@tetratech.com) at Tetra Tech.

	Genesee County Hazard Mitigation Plan 2025 Update SWOO
Up	date this worksheet and return this worksheet to Stacy Umbel at
Name/Title of Individual Completing Worksheet:	Stacy.Umbel@tetratech.com
Jurisdiction:	
octential mitigation actions process will serve as the bas	county Hazard Mitigation Plan. The results will be used to develop a catalog of t for use by the County and all jurisdictions. The opportunities developed from this is for our catalog of potential mitigation alternatives. The alternatives will address our als, and fall within our capabilities. We need to look at the following for each hazard
Weaknesses – what Obstacles – what st regulatory, geograp Opportunities - acti Civil Unrest	e County and communities do well; things upon which we can capitalize; : can be done better; what can be strengthened; tands in the way to implementation to prevent mitigation or response (for example hical, environmental, financial issues); and ons or projects to mitigate issues or improve resilience.
Weaknesses – what Obstacles – what regulatory, geograp Opportunities - acti	: can be done better; what can be strengthened; tands in the way to implementation to prevent mitigation or response (for example hical, environmental, financial issues); and
Weaknesses – what Obstacles – what st regulatory, geograp Opportunities - acti Civil Unrest Strengths Weaknesses	: can be done better; what can be strengthened; tands in the way to implementation to prevent mitigation or response (for example hical, environmental, financial issues); and
Weaknesses – what Obstacles – what st regulatory, geograp Opportunities - acti Civil Unrest Strengths	: can be done better; what can be strengthened; tands in the way to implementation to prevent mitigation or response (for example hical, environmental, financial issues); and
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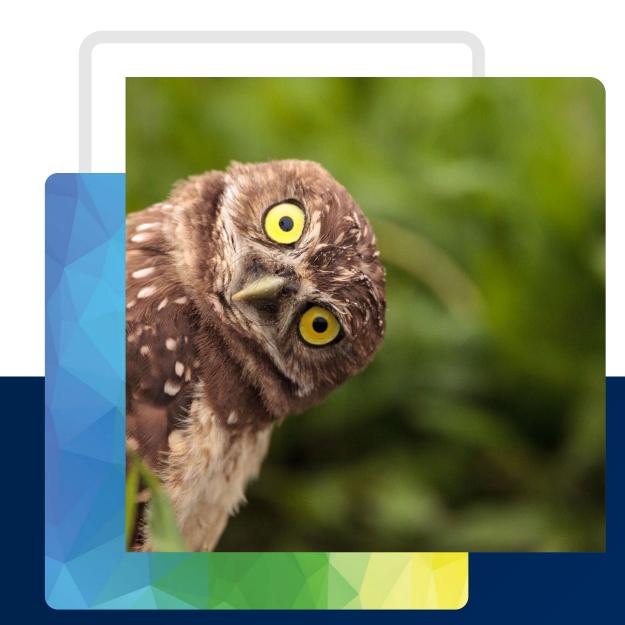






- Share information about the HMP Update via social media, community groups, and networks
- Complete SWOO exercise





Questions?

Genesee County Project Contact

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

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Thank You!